ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 80 and 1090

[EPA–HQ–OAR–2021–0324; FRL–8521–01–OAR]

RIN 2060–AV11

Renewable Fuel Standard (RFS) Program: RFS Annual Rules

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Under section 211 of the Clean Air Act (CAA), the Environmental Protection Agency (EPA) is required to set standards every year to implement nationally applicable renewable fuel volume targets. This action modifies the 2021 and 2022 statutory volume targets for cellulosic biofuel, advanced biofuel, and total renewable fuel, as well as establishes the 2022 volume target for biomass-based diesel. This action also modifies the previously established cellulosic biofuel, advanced biofuel, and total renewable fuel volume requirements for 2020. In addition, this action establishes the 2020, 2021, and 2022 renewable fuel percentage standards for all four of the above biofuel categories. Finally, this action also addresses a judicial remand of the 2016 standard-setting rulemaking, as well as several regulatory changes to the Renewable Fuel Standard (RFS) program, including regulations for the use of biointermediates to produce qualifying renewable fuel, flexibilities for regulated parties, and clarifications of existing regulations.

DATES: This rule is effective on August 30, 2022. The incorporation by reference of certain publications listed in this regulation is approved by the Director of the Federal Register as of August 30, 2022. The incorporation by reference of ASTM E711–87 (R2004) was approved by the Director of the Federal Register as of July 1, 2010.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2021–0324. All documents in the docket are listed on the *https://www.regulations.gov* website. Although listed in the index, some information is not publicly available, *e.g.,* confidential business information (CBI) or other information whose disclosure is restricted by statute. Certain other material is not available on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through *https://www.regulations.gov.*

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

Category	NAICS [1] codes	Examples of potentially affected entities
Industry	324110	Petroleum refineries.
Industry	325193	Ethyl alcohol manufacturing.
Industry	325199	Other basic organic chemical manufacturing.
Industry	424690	Chemical and allied products merchant wholesalers.
Industry	424710	Petroleum bulk stations and terminals.
Industry	424720	Petroleum and petroleum products merchant wholesalers.
Industry	221210	Manufactured gas production and distribution.
Industry	454319	Other fuel dealers.

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

This table is not intended to be exhaustive, but rather lists the types of entities that EPA is now aware could potentially be affected by this action. Other types of entities not listed in the table could also be affected. To determine whether your entity would be affected by this action, you should carefully examine the applicability criteria in 40 CFR parts 80 and 1090. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

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A red-line version of the regulatory language that incorporates the changes in this action is available in the docket for this action.

I. Executive Summary

The Renewable Fuel Standard (RFS) program began in 2006 pursuant to the requirements of the Energy Policy Act of 2005 (EPAct), which were codified in CAA section 211(o). The statutory requirements were subsequently amended by the Energy Independence and Security Act of 2007 (EISA). The statute sets forth annual, nationally applicable volume targets for each of the four categories of renewable fuel. It also directs EPA to modify or establish volume targets in certain circumstances. EPA must then translate the volume targets into compliance obligations, expressed as annual percentage standards, that obligated parties must meet every year.

In this action we are establishing the applicable volumes for cellulosic biofuel, advanced biofuel, and total renewable fuel for 2021 and 2022, and the biomass-based diesel (BBD) applicable volume for 2022,[1] as well as modifying the applicable volumes that EPA previously established for cellulosic biofuel, advanced biofuel, and total renewable fuel for 2020.[2] [3] We are also establishing the annual percentage standards (also known as ''percent standards'') for cellulosic biofuel, BBD, advanced biofuel, and total renewable fuel that apply to gasoline and diesel fuel produced or imported by obligated parties in 2020, 2021, and 2022. In addition, we are addressing the remand of the 2016 annual rule by the U.S. Court of Appeals for the D.C. Circuit, in *Americans for Clean Energy* v. *EPA,* 864 F.3d 691 (2017) (hereafter ''*ACE*'') by establishing a supplemental volume of 250 million gallons for 2022. EPA intends to establish an additional supplemental volume of 250 million gallons for 2023 in a subsequent action.

TABLE I–1—FINAL VOLUME REQUIREMENTS

[Billion RINs] [a]

Category	2020	2021	2022
Cellulosic Biofuel	0.51	0.56	0.63
Biomass-Based Diesel [b]	[c] 2.43	[d] 2.43	2.76
Advanced Biofuel	4.63	5.05	5.63
Total Renewable Fuel	17.13	18.84	20.63
Supplemental Standard	n/a	n/a	[e] 0.25

[a] One Renewable Identification Number (RIN) is equivalent to one ethanol-equivalent gallon of renewable fuel. Throughout this preamble, RINs are generally used to describe total volumes in each of the four categories shown above, while gallons are generally used to describe volumes for individual types of biofuel such as ethanol, biodiesel, renewable diesel, etc. Exceptions include BBD, which is always given in physical volumes, and biogas and electricity, which are always given in RINs.
[b] The BBD volumes are in physical gallons (rather than RINs).
[c] Established in the 2019 RFS annual rule (83 FR 63704, December 11, 2018).
[d] Established in the 2020 RFS annual rule (85 FR 7016, February 6, 2020).
[e] The supplemental standard is an additional total renewable fuel obligation. Thus, the total renewable fuel obligation for 2022 is 20.87 billion RINs; 20.63 billion RINs for the 2022 total renewable fuel standard and 0.25 billion RINs for the supplemental standard. The supplemental standard can be satisfied with any category (D3, D4, D5, D6, or D7) of RIN.

Finally, we are finalizing several regulatory changes to the RFS program, including regulations for the use of biointermediates to produce qualifying renewable fuel, flexibilities for regulated parties, and clarifications of existing regulations.

The RFS program is an important federal policy supporting the production of low-greenhouse gas (GHG) renewable fuels, which are an important element of addressing climate change through transportation policy. Expanding the production and use of renewable fuels also helps protect Americans from volatile crude oil prices by reducing our reliance on fossil fuels. As detailed in this rule's Regulatory Impact Analysis (RIA), EPA estimates that this rule will reduce the imports of crude oil and refined products by approximately 2.9 billion gallons. We have estimated that these reductions in imports will result in $227 million of energy security benefits. The actual energy security benefits could be higher as this estimate does not consider military cost impacts of changes to U.S. imports of crude oil and refined products. Finally, increasing the domestic production and use of renewable fuels will also create good-paying American jobs; support our rural

[1] The 2021 BBD volume requirement was established in the 2020 final rule. 85 FR 7016 (February 6, 2020).

[2] 85 FR 7016 (February 6, 2020).

[3] As explained in Section II, we did not trigger the reset authority for BBD. Thus, we are not resetting the previously finalized 2020 and 2021 BBD volumes. In addition, actual BBD use in both 2020 and 2021 is projected to exceed the previously finalized volumes. This is consistent with the findings in the 2019 and 2020 final rules, which established the 2020 and 2021 BBD volumes respectively, anticipating that additional BBD would be used above the BBD volumes to satisfy the advanced biofuel standards. Thus, we see no need to retroactively reconsider the BBD volumes in any event. As discussed in Section III.F, we are setting the 2022 BBD volume pursuant to our ''set'' authority under CAA section 211(o)(2)(B)(ii).

economies, American agriculture, and manufacturing; and reduce the impacts of climate change.

The final volume requirements in this action, combined with the changes EPA is separately taking with respect to the small refinery exemption (SRE) program, will provide much-needed stability to the RFS program. It will also strengthen the role of the program in advancing greater use of domestically produced low-carbon renewable fuels that are critical to building real energy independence in the long-term.

Throughout this document, EPA discusses and addresses comments on the proposed rule that stakeholders submitted to EPA; more in-depth responses are located in a separate Response to Comments (RTC) document, available in the docket for this action. EPA also prepared an RIA to support this final rule, available in the docket for this action.

A. Legal Authorities To Modify and Establish Renewable Fuel Volumes

For the 2020, 2021, and 2022 cellulosic biofuel, advanced biofuel, and total renewable fuel volumes, EPA is fulfilling our statutory obligation to ''reset'' the statutory volumes in accordance with CAA section 211(o)(7)(F). This provision, entitled ''Modification of Applicable Volumes,'' provides that, if a waiver of any statutory volume target exceeds specified thresholds, EPA shall modify the statutory volume targets for all years following the year that the threshold was exceeded. This obligation has been triggered by EPA actions waiving volumes in previous annual standard-setting rulemakings. Under this statutory provision, we are establishing new volume targets for cellulosic biofuel, advanced biofuel, and total renewable fuel for 2020, 2021, and 2022.[4]

When resetting the statutory targets, EPA must comply with the processes, criteria, and standards set forth in CAA section 211(o)(2)(B)(ii). In addition to reviewing the implementation of the program during previous years and coordinating with the Secretary of Energy and the Secretary of Agriculture, EPA must also analyze several factors:

- The impact of the production and use of renewable fuels on the environment, including on air quality, climate change, conversion of wetlands, ecosystems, wildlife habitat, water quality, and water supply;
- The impact of renewable fuels on the energy security of the U.S.;
- The expected annual rate of future commercial production of renewable fuels, including advanced biofuels in each category (cellulosic biofuel and BBD);
- The impact of renewable fuels on the infrastructure of the U.S., including deliverability of materials, goods, and products other than renewable fuel, and the sufficiency of infrastructure to deliver and use renewable fuel;
- The impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods; and
- The impact of the use of renewable fuels on other factors, including job creation, the price and supply of agricultural commodities, rural economic development, and food prices.

With respect to the 2022 BBD volume, we are setting this volume under CAA section 211(o)(2)(B)(ii). The requirement to reset the statutory volume targets does not apply to BBD. However, CAA section 211(o)(2)(B)(ii) separately requires that EPA set the BBD volume for years including 2022 based on an analysis of the same statutory factors as the reset authority.

In addition to these statutory provisions, the D.C. Circuit has also established principles that EPA must follow when promulgating RFS rulemakings that are retroactive (*i.e.,* rules that apply to conduct prior to the rule becoming effective) and late (*i.e.,* rules promulgated after the statutory deadline).[5] Namely, EPA generally has authority to promulgate such RFS rules, but EPA must reasonably consider and mitigate the burdens on obligated parties caused by the issuance of these rules after the statutory deadline. Several aspects of this rulemaking are either retroactive or are being finalized after the statutory deadline, or both. Therefore, we consider this caselaw as required by the D.C. Circuit and consistent with our obligation to act reasonably. We further discuss all our legal authorities to modify or establish volumes in Section II.

B. 2020 Volumes

EPA established the applicable 2020 volume requirements and percentage standards in late 2019.[6] Since we promulgated those standards, significant and unanticipated events occurred that affected the fuels markets in 2020. The two most prominent of these events were:

- The COVID–19 pandemic, which caused a major drop in transportation fuel demand, a disproportionate fall in gasoline demand relative to diesel demand, and significantly reduced production and use of biofuels in 2020 below the volumes we anticipated could be achieved, and
- The volume of gasoline and diesel fuel exempted from 2020 RFS obligations through SREs is far lower than projected in the 2020 final rule.

These events adversely affected the ability of obligated parties to comply with the applicable standards and to achieve the intended volumes in the 2020 final rule.[7] As a result, we proposed to retroactively adjust the 2020 volumes and standards to reflect the actual volumes of renewable fuels and transportation fuel consumed in the U.S. in 2020.[8] In this final rule we are establishing revised volumes and standards for 2020 based on the actual volumes of renewable fuel and transportation fuel used in the U.S. in 2020, as we proposed. As we discuss further in Section III, the revised renewable fuel volumes are supported by our analysis of the statutory factors that we must consider when resetting RFS volumes. Our decision to use updated data on actual transportation fuel consumption is further explained in Section V.

C. 2021 Volumes

For 2021, we proposed establishing volumes that were equal to the volumes of cellulosic biofuel, advanced biofuel, and total renewable fuel that were projected to be used in the U.S. in 2021 based on data available at the time of the proposed rule. We also indicated our intent to update these projections in the final rule. As discussed in further detail in Section III, we believe this approach for 2021 is appropriate based on our analysis of the statutory factors EPA must analyze when resetting the RFS volumes, including our finding that this retroactive rulemaking has no ability to incentivize increased production and use of renewable fuel in 2021. Consistent with our proposed rule, we are finalizing volumes for 2021

[4] As we explain further in Section II, we are also independently justifying the 2020, 2021, and 2022 cellulosic biofuel volumes and the 2022 advanced biofuel and total renewable fuel volumes under the cellulosic waiver authority.

[5] See, *e.g., Americans for Clean Energy* v. *EPA,* 864 F.3d 691 (D.C. Cir. 2017); *Monroe Energy, LLC* v. *EPA,* 750 F.3d 909 (D.C. Cir. 2014); *Nat'l Petrochemical & Refiners Ass'n* v. *EPA,* 630 F.3d 145, 154–58 (D.C. Cir. 2010).

[6] 85 FR 7016 (February 6, 2020). EPA signed this rulemaking on December 19, 2019.

[7] EPA extended the 2020 compliance deadline for obligated parties to January 31, 2022 (86 FR 17073, April 1, 2021). We subsequently further extended that deadline in a separate action (87 FR 5696, February 2, 2022).

[8] We also call such volumes the volumes that are actually consumed, actually used, or actually supplied. In this context, we are using the term ''supply'' distinct from the statutory term ''inadequate domestic supply'' in CAA section 211(o)(7)(A)(ii).

that are equal to the actual volumes of cellulosic biofuel, advanced biofuel, and total renewable fuel that were used in the U.S. in 2021.

D. 2022 Volumes

For 2022 we proposed a cellulosic biofuel volume that was equal to the volume of qualifying cellulosic biofuel projected to be used in the U.S. in 2022 and volumes of non-cellulosic advanced biofuel and conventional renewable fuel that were consistent with the implied statutory targets for these categories. These volumes were significantly higher than the proposed volumes for 2020 and 2021. In this final rule we are establishing volumes for 2022 that are consistent with the proposed volumes, after updating our projection of cellulosic biofuel use in 2022 using more recent data. As we discuss further in Section III, these volumes are based on our analysis of the statutory factors, including our assessment of the ability for the RFS program to incentivize increased production and use of renewable fuel in 2022 (particularly given the partially prospective nature of the 2022 standards relative to the entirely retrospective 2020 and 2021 standards), the statutory intent to support increasing production and use of renewable fuels, and the potential positive impacts of renewable fuels on several of the statutory factors such as climate change and energy security.[9] The volumes for 2022 also reflect market constraints on the ability of RFS annual volume requirements to incentivize increased production and use of renewable fuel in the near term. These constraints include the commercial availability of cellulosic biofuel, the price and availability of feedstocks, and the availability of infrastructure to distribute higher-level blends of ethanol. Finally, the volumes for 2022 take into consideration the potential adverse impacts of the renewable fuel volumes on several statutory factors including wildlife habitat, water quality, and water supply.

E. Response to the ACE Remand

In 2015, EPA established the total renewable fuel standard for 2016. As part of that rule, EPA relied upon the general waiver authority under a finding of inadequate domestic supply to reduce the total renewable fuel volume target by 500 million gallons.[10] Several parties challenged that action, and in *ACE* the D.C. Circuit vacated EPA's use of the general waiver authority, finding that such use exceeded EPA's authority under the CAA. Specifically, EPA had impermissibly considered demand-side factors in its assessment of inadequate domestic supply, rather than limiting that assessment to supply-side factors. The court remanded the rule back to EPA for further consideration.

We now intend to restore the full 500 million gallons that we improperly waived in the 2016 rule but to do so over two years. Specifically, as we discuss further in Section IV, we are adding a supplemental volume obligation of 250 million gallons, which will be implemented as a supplemental 2022 standard as we proposed. We also intend to propose an additional supplemental volume of 250 million gallons for 2023 in a subsequent action.

F. Annual Percentage Standards

The statute directs EPA to establish annual standards that translate the nationally applicable volume targets into compliance obligations on obligated parties. In this action, EPA is finalizing annual standards for 2020, 2021, and 2022 for all four categories of renewable fuel. We are also finalizing a supplemental standard to address the *ACE* remand, which will apply in the 2022 compliance year.

The renewable fuel standards are expressed as a volume percentage and are used by each refiner and importer of petroleum-based gasoline or diesel fuel to determine their renewable fuel volume obligations. The specific formulas we use in calculating the renewable fuel percentage standards are found in 40 CFR 80.1405. In the 2020 final rule, we modified the formulas used to calculate the percentage standards to account for a projection of exempt gasoline and diesel fuel volumes produced by small refineries and small refiners.[11] After seeking comment on this issue in the proposed rule, we are maintaining the modified formula. Additionally, we project that no exemptions will be granted for 2020–2022, and thus the exempt volume of gasoline and diesel fuel will be zero for all three years.

Four separate percentage standards are required under the RFS program, corresponding to the four separate renewable fuel categories shown in Table I–1. The final standards are shown in Table I.F–1. Details, including the projected gasoline and diesel fuel volumes used, can be found in Section V. Further details regarding the supplemental standard can be found in Section IV.

TABLE I.F–1—PERCENTAGE STANDARDS

Category	2020 (%)	2021 (%)	2022 (%)
Cellulosic Biofuel	0.32	0.33	0.35
Biomass-Based Diesel	2.30	2.16	2.33
Advanced Biofuel	2.93	3.00	3.16
Renewable Fuel	10.82	11.19	11.59
Supplemental Standard	n/a	n/a	0.14

G. Administrative Actions

The regulations promulgated in 2010 require EPA to make an annual finding concerning whether the 2007 baseline amount of U.S. agricultural land has been exceeded in a given year. If the baseline is found to have been exceeded, then producers using U.S. planted crops and crop residue as feedstocks for renewable fuel production would be required to comply with individual recordkeeping and reporting requirements to verify that their feedstocks are renewable biomass. As discussed in Section VI, we have concluded that 2007 baseline acreage has not been exceeded.

H. Biointermediates

Since the RFS2 program was finalized in 2010, we have become increasingly

[9] Throughout this document we often refer to the ''potential'' impacts (positive or negative) of increased biofuel production to highlight that there is uncertainty associated with these impacts. The lack of the qualifying word ''potential,'' however, does not mean that there is no uncertainty. For a fuller discussion of the uncertainty associated with these impacts see the RIA.

[10] See 80 FR 77420 (December 14, 2015); CAA section 211(o)(7)(A)(ii).

[11] 85 FR 7016 (February 6, 2020).

aware that some renewable fuel producers would like to process fuel at more than one facility. Specifically, renewable fuel producers would like to first have a facility process renewable biomass into a proto-renewable fuel (or ''biointermediate'') and then have a second, separate facility process that biointermediate into renewable fuel. In some cases, it may be preferable for economic or practical reasons for renewable biomass to be subjected to substantial pre-processing at one facility before being sent to a different facility where it is converted into renewable fuel. For example, renewable biomass, such as separated municipal solid waste (MSW), may be converted into biocrude—a biointermediate—at one facility, after which the biointermediate producer would send the biocrude to a petroleum refinery that would further process the biocrude to produce a renewable gasoline or renewable diesel fuel. Such production methodologies have the potential to lower the cost of using cellulosic and other feedstocks for the production of renewable fuels by reducing capital costs for new facilities and/or the storage and transportation costs associated with feedstock handling—especially for cellulosic biomass. Thus, we believe that such technologies provide an opportunity for the future growth in production of the cellulosic biofuels required under the RFS program.

In this action, we are finalizing provisions to allow for the use of certain biointermediates to produce qualifying renewable fuels. These provisions specify requirements that apply when renewable fuel is produced through sequential operations at more than one facility. These provisions center around the production, transfer, and use of biointermediates and the creation of new regulatory requirements related to registration, recordkeeping, and reporting for facilities producing or using a biointermediate for renewable fuel production. We further discuss the biointermediates provisions in Section VII.

I. Other Changes

We are finalizing regulatory changes that will assist EPA in implementing our fuel quality and RFS programs. These regulatory changes include:

- Changes to registration requirements concerning baseline volumes
- Changes to attest engagements for parties owning Renewable Identification Numbers (RINs)
- Treatment of confidential business information
- Clarifying the definition of ''agricultural digesters''
- Adding pathways for stand-alone esterification
- Other technical amendments to the RFS regulations

Each of these regulatory changes is discussed in greater detail in Section VIII.

J. Environmental Justice

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes Federal executive policy on environmental justice (''EJ''). It directs Federal agencies, to the greatest extent practicable and permitted by law, to make achieving EJ part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on people of color and low-income populations in the United States. EPA defines EJ as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.[12] Executive Order 14008 (86 FR 7619, February 1, 2021) also calls on Federal agencies to make achieving EJ part of their missions ''by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts.'' It also declares a policy ''to secure environmental justice and spur economic opportunity for disadvantaged communities that have been historically marginalized and overburdened by pollution and under-investment in housing, transportation, water and wastewater infrastructure and health care.'' EPA also released its ''Technical Guidance for Assessing Environmental Justice in Regulatory Analysis'' providing recommendations on conducting the highest quality analysis feasible, recognizing that data limitations, time and resource constraints, and analytic challenges will vary by media and regulatory context.[13]

When assessing the potential for disproportionately high and adverse health or environmental impacts of regulatory actions on people of color, low-income populations, tribes, and/or indigenous peoples, EPA strives to answer three broad questions: (1) Is there evidence of potential EJ concerns in the baseline (the state of the world absent the regulatory action)? Assessing the baseline will allow EPA to determine whether pre-existing disparities are associated with the pollutant(s) under consideration (*e.g.,* if the effects of the pollutant(s) are more concentrated in some population groups). (2) Is there evidence of potential EJ concerns for the regulatory option(s) under consideration? Specifically, how are the pollutant(s) and their effects distributed for the regulatory options under consideration? And, (3) Do the regulatory option(s) under consideration exacerbate or mitigate EJ concerns relative to the baseline? It is not always possible to assess these questions in ways that produce quantitative results, though it may still be possible to describe them qualitatively.

EPA's 2016 Technical Guidance does not prescribe or recommend a specific approach or methodology for conducting an EJ analysis, though a key consideration is consistency with the assumptions underlying other parts of the regulatory analysis when evaluating the baseline and regulatory options. Where applicable and practicable, the Agency endeavors to conduct such an analysis. Going forward, EPA is committed to conducting EJ analysis for rulemakings based on a framework similar to what is outlined in EPA's Technical Guidance, in addition to investigating ways to further weave EJ into the fabric of the rulemaking process.

In 2009, under the Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act (''Endangerment Finding''), EPA considered how climate change threatens the health and welfare of the U.S. population. As part of that consideration, EPA also considered risks to people of color and low-income individuals and communities, finding that certain parts of the U.S. population may be especially vulnerable based on their characteristics or circumstances. These groups include economically and socially disadvantaged communities; individuals at vulnerable lifestages, such as the elderly, the very young, and pregnant or nursing women; those already in poor health or with comorbidities; the disabled; those experiencing homelessness, mental illness, or substance abuse; and/or Indigenous or minority populations

[12] See, *e.g.,* ''Environmental Justice.'' *Epa.gov,* Environmental Protection Agency, 4 Mar. 2021, *https://www.epa.gov/environmentaljustice.*

[13] The definitions and criteria for ''disproportionate impacts,'' ''difference,'' and ''differential'' are contained in EPA's June 2016 guidance document ''Technical Guidance for Assessing Environmental Justice in Regulatory Analysis.'' *Epa.gov,* Environmental Protection Agency, *https://www.epa.gov/sites/default/files/2016-06/documents/ejtg_5_6_16_v5.1.pdf.*

dependent on one or limited resources for subsistence due to factors including but not limited to geography, access, and mobility.

Scientific assessment reports produced over the past decade by the U.S. Global Change Research Program (USGCRP),[14] [15] the Intergovernmental Panel on Climate Change (IPCC),[16] [17] [18] [19] and the National Academies of Science, Engineering, and Medicine [20] [21] add more evidence that the impacts of climate change raise potential EJ concerns. These reports conclude that poorer or predominantly non-White communities can be especially vulnerable to climate change impacts because they tend to have limited adaptive capacities and are more dependent on climate-sensitive resources such as local water and food supplies, or have less access to social and information resources. Some communities of color, specifically populations defined jointly by ethnic/racial characteristics and geographic location, may be uniquely vulnerable to climate change health impacts in the United States. In particular, the 2016 scientific assessment on the Impacts of Climate Change on Human Health found with high confidence that vulnerabilities are place- and time-specific, lifestages and ages are linked to immediate and future health impacts, and social determinants of health are linked to greater extent and severity of climate change-related health impacts.

This rule has the potential to reduce GHG emissions, which would benefit all populations including people of color, low-income populations, and indigenous populations. The manner in which the market responds to the provisions in this final rule could also have non-GHG impacts, including both positive and negative impacts. For instance, replacing petroleum fuels with renewable fuels could have impacts on water, air, and hazardous waste exposure for communities living near either existing or new facilities that produce these fuels. Replacing petroleum fuels with renewable fuels could also impact feedstock supplies and land use, which could impact a range of communities through their impacts on air, water, and soil quality, as well as water quantity. Impacts on water quality in particular could impact communities that rely on aquatic ecosystems for income or sustenance, including indigenous peoples. Replacing petroleum fuels with renewable fuels is also projected to cause increases in food and fuel prices, and these price impacts could also disproportionately affect low-income populations who spend a larger portion of their income on food and fuel.

The overall EJ implications of these non-GHG impacts is uncertain. Specifically, it is uncertain whether these impacts are unevenly distributed spatially in ways that coincide with patterns of pre-existing exposure and vulnerabilities for people of color, low income populations, and indigenous peoples. Accurately evaluating the EJ implications would entail predicting where changes in production of renewable fuels and land use occur at a fine spatial scale. That is beyond the scope of our analysis in this rule. A more detailed discussion of potential EJ concerns as a result of this action can be found in Chapter 8 of the RIA.

K. Endangered Species Act

Section 7(a)(2) of the Endangered Species Act (ESA), 16 U.S.C. 1536(a)(2), requires that Federal agencies such as EPA, along with the U.S. Fish and Wildlife Service (USFWS) and/or the National Marine Fisheries Service (NMFS) (collectively ''the Services''), ensure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat for such species. Under relevant implementing regulations, consultation is required only for actions that ''may affect'' listed species or designated critical habitat. 50 CFR 402.14. Consultation is not required where the action has no effect on such species or habitat. For several prior RFS annual standard-setting rules, EPA did not consult with the Services under section 7(a)(2).

On September 6, 2019, the D.C. Circuit decided *American Fuel & Petrochemical Manufacturers* v. *EPA,* 937 F.3d 559 (2019), finding that EPA had failed to make an effects determination for ESA purposes with regard to the 2018 RFS rule and remanding the rule without vacatur to EPA to make an appropriate effects determination. *See id.* at 598.

On July 16, 2021, the D.C. Circuit decided *Growth Energy* v. *EPA,* 5 F.4th 1 (2021), finding that EPA's determination that the 2019 RFS rule would have no effect on listed species or the designated critical habitat of such species was arbitrary and capricious and remanding the rule to EPA without vacatur to comply with the ruling. *See id.* at 32.

In light of this case law pertaining to EPA's action in prior years and consistent with ESA section 7(a)(2) and relevant ESA implementing regulations at 50 CFR part 402, EPA has been engaged in informal consultation

[14] USGCRP, 2018: *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 1515 pp. doi: 10.7930/NCA4.2018.

[15] USGCRP, 2016: The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M.D. Hawkins, S.C. Herring, L. Jantarasami, D.M. Mills, S. Saha, M.C. Sarofim, J. Trtanj, and L. Ziska, Eds. U.S. Global Change Research Program, Washington, DC, 312 pp. *https://dx.doi.org/10.7930/J0R49NQX.*

[16] Oppenheimer, M., M. Campos, R.Warren, J. Birkmann, G. Luber, B. O'Neill, and K. Takahashi, 2014: Emergent risks and key vulnerabilities. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1039–1099.

[17] Porter, J.R., L. Xie, A.J. Challinor, K. Cochrane, S.M. Howden, M.M. Iqbal, D.B. Lobell, and M.I. Travasso, 2014: Food security and food production systems. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 485–533.

[18] Smith, K.R., A.Woodward, D. Campbell-Lendrum, D.D. Chadee, Y. Honda, Q. Liu, J.M. Olwoch, B. Revich, and R. Sauerborn, 2014: Human health: impacts, adaptation, and co-benefits. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 709–754.

[19] IPCC, 2018: Global Warming of 1.5° C. An IPCC Special Report on the impacts of global warming of 1.5° C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press.

[20] National Research Council. 2011. America's Climate Choices. Washington, DC: The National Academies Press. *https://doi.org/10.17226/12781.*

[21] National Academies of Sciences, Engineering, and Medicine. 2017. Communities in Action: Pathways to Health Equity. Washington, DC: The National Academies Press. *https://doi.org/10.17226/24624.*

including technical assistance discussions with the Services regarding this rule for over a year.[22] EPA has prepared an ESA section 7(d) determination memorandum that discusses our decision to finalize this action before the consultation process is complete, which is also available in the docket for this action.[23] [24]

II. Legal Authorities To Reduce and Establish Volumes

The CAA provides EPA with several authorities to reduce or establish the nationally applicable renewable fuel volumes. In this action, as proposed, we are utilizing the cellulosic waiver authority along with the ''reset'' waiver authority to reduce the applicable volumes for 2020, 2021, and 2022 for total renewable fuel, advanced biofuel, and cellulosic biofuel. We are also utilizing our ''set'' authority to establish the 2022 applicable volume for BBD. We have also considered but declined to make reductions utilizing our ''general'' waiver authority.

This section discusses the statutory authorities, additional factors we considered due to the retroactivity or lateness of this rulemaking, additional factors related to our reconsideration of the previously finalized standards for 2020, how we are applying our authorities to establish the volumes, as well as the severability of the various portions of this final rule. A detailed summary of the comments received on EPA's legal authorities to reduce and establish volumes and our responses to those comments can be found in the Section 2 of the RTC document.

A. Authorities To Modify Statutory Volumes Targets

In CAA section 211(o)(2), Congress specified increasing annual volume targets for total renewable fuel, advanced biofuel, and cellulosic biofuel for each year through 2022. However, Congress also recognized that under certain circumstances it would be appropriate for EPA to set volume requirements different from the statutory volume targets and thus provided waiver provisions in CAA section 211(o)(7). In this action, we are utilizing the cellulosic waiver authority under CAA section 211(o)(7)(D) and the reset authority under CAA section 211(o)(7)(F) to reduce volumes for 2020, 2021, and 2022. We are not using our general waiver authority. In addition, while in January 2021 we sought comment on the use of general waiver authority to reduce volumes for 2020 in response to several petitions from states and obligated parties submitted during the 2020 compliance year,[25] we have determined that reductions under the general waiver authority are not necessary or appropriate in light of our decision to waive the volumes using our other authorities.

1. Cellulosic Waiver Authority

Section 211(o)(7)(D)(i) of the CAA provides that if EPA determines that the projected volume of cellulosic biofuel production for a given year is less than the applicable volume established under CAA section 211(o)(2)(B), then EPA must reduce the applicable volume of cellulosic biofuel to the projected volume available for that calendar year. In making this projection, EPA must take a ''neutral aim at accuracy.'' *American Petroleum Institute (API)* v. *EPA,* 706 F.3d 474, 479 (D.C. Cir. 2013). Pursuant to this provision, EPA has set the cellulosic biofuel requirement lower than the statutory volume for each year since 2010. CAA section 211(o)(7)(D)(i) also provides EPA with the authority to reduce the applicable volume of total renewable fuel and advanced biofuel in years when EPA reduces the applicable volume of cellulosic biofuel under that provision. The reduction must be less than or equal to the reduction in cellulosic biofuel. EPA has used this aspect of the cellulosic waiver authority to lower the advanced biofuel and total renewable fuel volumes every year since 2014. Further discussion of the cellulosic waiver authority, and EPA's interpretation of it, can be found in the 2017 final rule.[26]

In this action, as proposed, we are utilizing the cellulosic waiver authority as required by the statute to reduce the applicable volume of cellulosic biofuel for 2020, 2021, and 2022. As described in Chapter 4 of the RIA, the projected volumes of cellulosic biofuel production for 2020, 2021, and 2022 are all significantly less than the volume targets in the statute. Therefore, the cellulosic waiver authority requires EPA to lower the cellulosic biofuel volume to the projected volume available in each year. Our interpretation of the ''projected volume available'' includes the volume of qualifying cellulosic biofuel projected to be produced or imported and available for use as transportation fuel in the U.S. in that year. Consistent with our past interpretation of the term as discussed further in Section III.B.2, it does not include cellulosic carryover RINs. We are also utilizing the cellulosic waiver authority as a basis for reductions in the total renewable fuel and advanced biofuel applicable volumes for 2022.

2. Reset Authority

The CAA provides that EPA shall modify the statutorily prescribed RFS volumes once certain triggers are met. This section discusses the statutory requirements that trigger the use of this reset authority, describes the process and criteria for such use, and explains the impact of this modification on our other waiver authorities. In this action, as proposed, we are utilizing the reset authority to modify the volume requirements for 2020, 2021, and 2022 as required by the statute and after careful consideration of the many comments received.

a. Conditions for Resetting Volume Targets

CAA section 211(o)(7)(F) sets forth EPA's authority to modify, or ''reset'' the applicable volumes once certain triggers have been met. Specifically, EPA must reset the applicable volumes for a particular category of biofuel when, under CAA section 211(o)(7)(F)(i), we waive at least 20 percent of the applicable volume requirement for such category for two consecutive years, or, under CAA section 211(o)(7)(F)(ii), we waive at least 50 percent of such applicable volume requirement for a single year. With the promulgation of the 2019 standards, these conditions have been met for three categories of biofuel: cellulosic biofuel, advanced biofuel, and total renewable fuel.[27] We describe below, for each

[22] A chronology of these interactions between EPA and the Services is available in the docket for this action. ''Technical assistance'' and ''informal consultation'' are terms used to describe aspects of ESA consultation with the Services, as detailed in the ESA Section 7 Consultation Handbook, March 1998 (available at *https://media.fisheries.noaa.gov/dam-migration/esa_section7_handbook_1998_opr5.pdf*).

[23] Section 7(d) of the ESA prohibits a federal agency from making irreversible or irretrievable commitments of resources that have the effect of foreclosing the formulation or implementation of reasonable and prudent alternatives which would not violate ESA section 7(a)(2).

[24] EPA intends to respond to the D.C. Circuit's remands of the ESA determinations made in the 2018 and 2019 RFS rules in a separate proceeding.

[25] See 86 FR 5182 (January 19, 2021).

[26] See 81 FR 89752–89753 (December 12, 2016); see also *API* v. *EPA,* 706 F.3d 474 (D.C. Cir. 2013) (requiring that EPA's cellulosic biofuel projections reflect a neutral aim at accuracy); *Monroe Energy* v. *EPA,* 750 F.3d 909, 915–16 (D.C. Cir. 2014) (affirming EPA's broad discretion under the cellulosic waiver authority to reduce volumes of advanced biofuel and total renewable fuel); *Americans for Clean Energy* v. *EPA* (''*ACE*''), 864 F.3d 691, 730–735 (D.C. Cir. 2017) (same); *Alon Refining Krotz Spring, Inc.* v. *EPA,* 936 F.3d 628, 662–663 (D.C. Cir. 2019) (same); *American Fuel & Petrochemical Manufacturers* v. *EPA,* 937 F.3d 559, 577–78 (D.C. Cir. 2019) (same).

[27] Because the statutory volumes for BBD lapsed after 2012, the reset provision, which only applies

category of biofuel, how these conditions were satisfied.

The conditions for resetting cellulosic biofuel volumes were met by the 2010 annual standard, which reduced the applicable cellulosic biofuel volume by at least 50 percent. In that rule, we waived the cellulosic biofuel applicable volume for the first time using the cellulosic waiver authority.[28] We set the cellulosic biofuel applicable volume at 6.5 million gallons for 2010.[29] This waiver resulted in an applicable volume that was 93.5 percent lower than the applicable volume requirement provided in the statute (100 million gallons), thus triggering the reset requirement under CAA section 211(o)(7)(F)(ii). However, the statute also provides that ''no such modification in applicable volumes shall be made for any year before 2016.'' CAA section 211(o)(7)(F). Therefore, although the trigger to modify the cellulosic biofuel volume target under the reset provision was met in 2010, the statute did not require a change to the applicable volumes until 2016.[30]

The conditions for resetting advanced biofuel volumes were met by the 2014 and 2015 annual standards, which reduced the advanced biofuel applicable volume by at least 20 percent for two consecutive years. For the 2014 annual standard, we waived the advanced biofuel volume for the first time.[31] We set the advanced biofuel volume at 2.67 billion gallons.[32] This represented a reduction of 28.8 percent from the applicable volume requirement provided in the statute (3.75 billion gallons). This reduction therefore triggered the first year of reductions of at least 20 percent under CAA section 211(o)(7)(F)(i). For the 2015 annual standard, we reduced the advanced biofuel applicable volume to 2.88 billion gallons.[33] This represented a reduction of 47.6 percent from the applicable volume requirement provided in the statute (5.5 billion gallons). This represented the second consecutive year for which the Administrator waived volumes by at least 20 percent, thus triggering the modification of the advanced biofuel volume under CAA section 211(o)(7)(F)(i).

The conditions for resetting total renewable fuel volumes were met by the 2018 and 2019 annual standards, which reduced the applicable total renewable fuel volume by at least 20 percent for two consecutive years. For the 2018 annual standard, we reduced the total renewable fuel volume to 19.29 billion gallons.[34] This represented a reduction of 25.8 percent from the applicable volume requirement provided in the statute (26 billion gallons). This reduction therefore triggered the first year of reductions of at least 20 percent under CAA section 211(o)(7)(F)(i). For the 2019 annual standard, we reduced the total renewable fuel volume to 19.92 billion gallons.[35] This represented a reduction of 29 percent from the applicable volume requirement provided in the statute (28 billion gallons). This represented the second consecutive year for which the Administrator waived volumes by at least 20 percent, thus triggering the modification of the total renewable fuel volume under CAA section 211(o)(7)(F)(i).

b. Factors That Must Be Analyzed

In resetting the statutory volumes, EPA must comply with the processes, criteria, and standards set forth in CAA section 211(o)(2)(B)(ii). That provision provides that the Administrator shall, in coordination with the Secretary of Energy and the Secretary of Agriculture, determine the applicable volumes of each biofuel category specified based on a review of implementation of the program during the calendar years specified in the table, and an analysis of the impact of:

- the impact of the production and use of renewable fuels on the environment, including on air quality, climate change, conversion of wetlands, ecosystems, wildlife habitat, water quality, and water supply;
- the impact of renewable fuels on the energy security of the United States;
- the expected annual rate of future commercial production of renewable fuels, including advanced biofuels in each category (cellulosic biofuel and BBD);
- the impact of renewable fuels on the infrastructure of the United States, including deliverability of materials, goods, and products other than renewable fuel, and the sufficiency of infrastructure to deliver and use renewable fuel;
- the impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods; and
- the impact of the use of renewable fuels on other factors, including job creation, the price and supply of agricultural commodities, rural economic development, and food prices.

While the statute requires that EPA base its determination on an analysis of these factors, it does not establish any numeric criteria, require a specific type of analysis (such as quantitative analysis), or provide guidance on how EPA should weigh the various factors. Additionally, we are not aware of anything in the legislative history of EISA that provides authoritative guidance on these issues. Thus, as the Act ''does not state what weight should be accorded to the relevant factors,'' it ''give[s] EPA considerable discretion to weigh and balance the various factors required by statute.''[36] We received comments on this issue, with some commenters suggesting that we should give more weight to certain factors than others; our responses can be found in Section 2 of the RTC document.

Additionally, we also have authority to consider other factors, including implied authority to consider factors that inform our analysis of the statutory factors, as well as explicit authority to consider ''the impact of the use of renewable fuels on other factors. . . .''[37] Accordingly, we have considered several other factors, including the intertwined nature of compliance with the 2020–2022 standards, the size of the carryover RIN bank,[38] how the entirely retroactive nature of the 2020 and 2021 standards as compared to the partially prospective nature of the 2022 annual and supplemental standards affects the feasibility of compliance,[39] the supply of qualifying renewable fuels to U.S.

to 2016 and subsequent years, does not apply to BBD.

[28] 75 FR 14670 (March 26, 2010).

[29] 75 FR 14675.

[30] We note that all subsequent annual rules have also waived the cellulosic biofuel volume by more than 50 percent.

[31] 80 FR 77420 (December 14, 2015).

[32] *Id.*

[33] *Id.*

[34] 82 FR 58486 (December 12, 2017).

[35] 83 FR 63704 (December 11, 2018).

[36] *Nat'l Wildlife Fed'n* v. *EPA,* 286 F.3d 554, 570 (D.C. Cir. 2002); accord *Riverkeeper, Inc.* v. *United States EPA,* 358 F.3d 174, 195 (2d Cir. 2004); *BP Exploration & Oil, Inc.* v. *EPA,* 66 F.3d 784, 802 (6th Cir. 1995); see also Cal. by *Brown* v. *Watt,* 668 F.2d 1290, 1317 (D.C. Cir. 1981) (''A balancing of factors is not the same as treating all factors equally. The obligation instead is to look at all factors and then balance the results. The Act does not mandate any particular balance, but vests the Secretary with discretion to weigh the elements. . . .'').

[37] CAA section 211(o)(2)(B)(ii)(VI).

[38] The first two factors also inform our analysis of the statutory factor ''review of the implementation of the program.'' CAA section 211(o)(2)(B)(ii).

[39] The third factor (how the standards affect the feasibility of compliance) also informs our analysis of the statutory factor ''the expected annual rate of future commercial production of renewable fuels.'' CAA section 211(o)(2)(B)(ii)(III).

consumers,[40] soil quality,[41] and environmental justice.[42]

c. Impact on Other Statutory Authorities To Waive Volumes

Our use of the reset authority in this action does not preclude our legal authority to waive volumes under the other waiver authorities. Nothing in the CAA suggests that once the volumes are reset they cannot be modified further, or that the reset authority cannot be used in conjunction with other waiver authorities such as the cellulosic waiver authority.[43]

d. Use of the Reset Authority in This Action

For cellulosic biofuel for 2020, 2021 and 2022, we believe that the appropriate volume after analyzing the various factors is the projected volume available in each of those years. For each year, this volume is equivalent to the resulting volume after exercise of the cellulosic waiver authority. Thus, these volumes are justified under both the cellulosic waiver authority and the reset authority.

For advanced biofuel and total renewable fuel, we are establishing volumes equal to the actual volumes of such fuels available in 2020 and 2021 under the reset authority alone. We recognize that the resulting volumes are lower than the minimum volumes that could result from exercising the cellulosic waiver authority; however, as we explain further in Section III, we do not believe that the lowest volumes permissible under the cellulosic waiver authority are appropriate based upon our consideration of the reset factors.[44] In other words, larger reductions in advanced biofuel and total renewable fuel are warranted under the reset authority than could be provided utilizing the maximum reductions permissible under the cellulosic waiver authority alone. For 2022, we are utilizing both the reset authority and the cellulosic waiver authority to reduce the advanced biofuel and total renewable fuel standards by the same amount as the reduction in cellulosic biofuel. This results in implied non-cellulosic advanced biofuel and conventional renewable fuel volumes equal to the implied statutory volumes. This also represents the maximum permitted reduction under the cellulosic waiver authority.[45]

In Section III and throughout the RIA, we set forth our policy and technical rationale for the 2020, 2021, and 2022 volumes for cellulosic biofuel, advanced biofuel, and total renewable fuel. Our analysis is framed in terms of the statutory factors that the reset authority requires us to consider, along with the considerations for retroactive and late rules identified by the D.C. Circuit. Since this analysis subsumes our policy and technical rationale for exercising the cellulosic waiver authority as well, we are not providing a separate analysis for the application of the cellulosic waiver authority.

3. General Waiver Authority

Section 211(o)(7)(A) of the CAA provides that EPA, in consultation with the Secretary of Agriculture and the Secretary of Energy, may waive the applicable volumes specified in the Act in whole or in part based on a petition by one or more States, by any person subject to the requirements of the Act, or by the EPA Administrator by his own initiative. Such a waiver must be based on a determination by the Administrator, after public notice and opportunity for comment that (1) implementation of the requirement would severely harm the economy or the environment of a State, a region, or the United States; or (2) there is an inadequate domestic supply.

EPA received several requests for use of the general waiver authority for the 2020 standards from stakeholders concerned about the impacts on the fuels markets resulting from the COVID–19 pandemic. These included requests from the governors of multiple states alleging that the criteria for the general waiver authority were satisfied and that lowering the required volumes for 2020 was appropriate. In January 2021, we published a notice in the **Federal Register** seeking comment on these requests.[46] We did not propose to and are not modifying the 2020 volumes utilizing the general waiver authority in this action. In lieu of doing so, we are revising the 2020 volumes under both the cellulosic waiver authority and the reset authority to the volumes actually used in that year. This rule thus addresses many of the concerns raised in the general waiver petitions, including the shortfall in RIN generation in 2020, uncertainty regarding SREs following the Tenth Circuit's decision in *Renewable Fuels Association (RFA)* v. *EPA,* and the hurdles those may present to obligated parties' compliance.

To the extent that EPA's independent action to reduce statutory volumes under both the cellulosic waiver authority and the reset authority satisfies the petition requests, those requests are now practically moot. To the extent any petition seeks differing reductions in applicable volumes than are set forth in this final rule, we believe the reductions we are finalizing are appropriate, and we are denying those requests. As discussed in Section III, the modified 2020 volumes reflect the volumes actually used in the U.S. in 2020. Thus, compliance with these modified volumes will not result in severe economic harm, and granting the general waiver petitions is not needed to avert such harm. As such, EPA is denying all pending requests to lower the 2020 volumes based on severe economic harm. Specifically, we are denying the petitions to waive the 2020 standards on the basis of severe economic harm from the following states: Louisiana, Oklahoma, Texas, Utah, Wyoming, Pennsylvania, and Montana. We are also denying petitions received from small refineries suggesting EPA waive volumes for 2019 and 2020 utilizing the general waiver authority under a finding of severe economic harm. These requests sought reductions in individual obligations utilizing the general waiver authority under a finding of severe economic harm. For the reasons further discussed in Section 13 of the RTC document, we do not think that the statute should be read to allow for individual reductions in renewable volume obligations (RVOs) under the general waiver authority, nor do we believe that the petitioners have

[40] The fourth factor (supply of renewable fuels) is based on our analysis of this same statutory factor (the expected annual rate of future commercial production of renewable fuel), as well as of downstream constraints on biofuel use, including the statutory factors relating to infrastructure and costs. CAA section 211(o)(2)(B)(ii)(III)–(V).

[41] Soil quality is closely tied to water quality and is also relevant to the impact of renewable fuels on the environment more generally. See CAA section 211(o)(2)(B)(ii)(I).

[42] Environmental justice involves consideration of the impact of renewable fuels on several factors, including environmental and cost factors. See CAA section 211(o)(2)(B)(ii)(I), (V). This and the other non-enumerated factors are also relevant under the statutory factor ''the impact of the use of renewable fuels on other factors. . . .'' CAA section 211(o)(2)(B)(ii)(VI).

[43] See *J.E.M. Ag Supply, Inc.* v. *Pioneer Hi-Bred Intern., Inc.,* 534 U.S. 124, 143–44 (2001) (holding that when two statutes are capable of coexistence and there is not clearly expressed legislative intent to the contrary, each should be regarded as effective).

[44] Under the cellulosic waiver authority, when EPA reduces the volume of cellulosic biofuel, EPA may reduce the advanced biofuel and total renewable fuel volumes by the same or a lesser amount.

[45] This is also consistent with our authority to apply equal reductions to the volumes of advanced biofuel and total renewable fuel under the cellulosic waiver. CAA(o)(7)(D)(i), see also 85 FR 7016, 7047–7048 (February 6, 2020).

[46] 86 FR 5182 (January 19, 2021). Comments on these requests are available in the docket for that notice, EPA–HQ–OAR–2020–0322, and the docket for this action.

demonstrated severe economic harm as required by the statute.

B. Authority To Establish BBD Volumes

EPA has established the BBD requirement under CAA section 211(o)(2)(B)(ii) since 2013 because the statute only provided BBD volumes through 2012. Thus, EPA is establishing an applicable volume for BBD for 2022 under this authority, which we term the ''set'' authority.[47] As discussed in prior annual rulemakings, EPA is to determine the applicable volume of BBD, in coordination with the Secretary of Energy and the Secretary of Agriculture, based on an analysis of the same statutory factors enumerated above for ''resetting'' volumes for the other fuel categories.[48] The statute also requires that the BBD volume be set at or greater than the 1.0 billion gallon volume requirement for 2012, but does not provide any other numerical criteria that EPA is to consider. We are establishing the BBD volume for 2022 at 2.76 billion gallons as proposed. Our policy and technical rationale for this volume is also set forth in Section III and Chapter 10 of the RIA.

C. Considerations for Retroactive and Late Rulemaking

In this rulemaking, we proposed and are finalizing several late or retroactive standards. EPA has in the past also missed statutory deadlines for promulgating RFS standards. In those cases, the D.C. Circuit found that EPA retains authority to promulgate annual standards retroactively, so long as EPA exercises this authority reasonably.[49] In doing so, EPA must balance the burden on obligated parties of a retroactive standard with the broader goal of the RFS program to increase renewable fuel use.[50] Even if the rule does not operate retroactively, but is nonetheless promulgated after the statutory deadline, EPA must consider and mitigate the burdens on obligated parties associated with a delayed rulemaking.[51] In upholding EPA's retroactive standards for 2014 and 2015 in *ACE,* for example, the court considered several specific factors, including the availability of RINs for compliance, the amount of lead time and adequate notice for obligated parties, and the availability of compliance flexibilities. Additionally, the court separately addressed rulemakings that were late (*i.e.,* those issued after the statutory deadline) but were nonetheless not retroactive, emphasizing in that context the amount of lead time and adequate notice for obligated parties.[52]

In this rulemaking, we are exercising the reset authority after the statutory deadline of December 11, 2019 (*i.e.,* one year after the promulgation of the 2019 final rule, which triggered the reset obligation for total renewable fuel).[53] We are also exercising our set authority for the 2022 BBD volume after the statutory deadline of October 31, 2020. We are also promulgating the 2020, 2021, and 2022 standards after their statutory deadlines of November 30, 2019, 2020, and 2021 respectively.[54] The 2020 and 2021 standards are retroactive as they apply to gasoline and diesel fuel produced or imported in 2020 and 2021. The 2022 standards, which apply to gasoline and diesel fuel produced or imported in 2022, are partially retroactive and partially prospective. We discuss in detail the considerations for late or retroactive rulemaking for each of these requirements further in Section III.

In addition, in responding to the *ACE* remand of the 2016 annual rule, EPA is promulgating a supplemental standard for 2022.[55] We are finalizing this supplemental standard after the statutory deadline for the 2016 standards (November 30, 2015). As with the other 2022 standards, this standard will also be partially retroactive and partially prospective. We further discuss our response to the *ACE* remand in Section IV.

D. Considerations in Revisiting an Established RFS Standard

We are revising the previously finalized 2020 standards in this rulemaking as proposed and after considering the many comments received both for and against doing so. We generally have authority to reconsider and revise our rulemakings, so long as we use the same procedures to amend a rule as we used to promulgate it in the first instance and set forth good reasons for the reconsideration.[56] Our authority to revise RFS annual rules specifically is further buttressed by the statutory structure, under which Congress created a prospective regulatory scheme,[57] but expressly contemplated the possibility for adjustments based on unanticipated circumstances through waiver authorities.[58] This understanding of our authority is also long-standing; we previously revised the 2011 and 2013 annual rules and have also adjudicated on the merits numerous petitions to revise other annual rules.[59] We believe our power to reconsider, as with our power to promulgate a rule in the first instance, remains extant even where the rule operates retroactively or is promulgated after the statutory deadline, so long as we reasonably consider and mitigate the burdens associated with a retroactive or delayed rulemaking as described above.

Despite our legal authority to reconsider past RFS standards, we believe that we generally should not reconsider such standards. Reconsideration can impose costs on regulatory certainty and unduly disrupt market expectations created by previously promulgated standards. This may be particularly so where the effects of reconsideration are retroactive, and such retroactive rules must, as discussed above, consider and mitigate burdens on obligated parties. Moreover, in the 2020 final rule itself, we expressly stated that we did not intend,

[47] The applicable volume for BBD for 2021 was established in the 2020 annual rulemaking. 85 FR 7016 (February 6, 2020).

[48] 85 FR 7016, 7047–7048 (February 6, 2020).

[49] *Americans for Clean Energy* v. *EPA,* 864 F.3d 691, 720 (D.C. Cir. 2017) (*ACE*); *Monroe Energy, LLC* v. *EPA,* 750 F.3d 909 (D.C. Cir. 2014); *Nat'l Petrochemical & Refiners Ass'n* v. *EPA,* 630 F.3d 145, 154–58 (D.C. Cir. 2010) (*NPRA*).

[50] *NPRA,* at 154–58 (D.C. Cir. 2010).

[51] *ACE,* 864 F.3d 691, 718 (D.C. Cir. 2017).

[52] *Id.* at 721.

[53] This was the deadline for resetting total renewable fuel volumes. The deadlines for resetting advanced biofuel and cellulosic biofuel volumes passed earlier.

[54] These are also the deadlines for exercising the cellulosic waiver authority for those years, which we have also missed.

[55] We also intend to propose a supplemental standard for 2023 in a subsequent action.

[56] See *Motor Vehicle Manufacturers Ass'n* v. *State Farm Mutual Automobile Insurance Co.,* 463 U.S. 29, 42, (1983) (''an agency must be given ample latitude to adapt their rules and policies to the demands of changing circumstances); *Federal Communications Commission (FCC)* v. *Fox Television Stations, Inc.,* 556 U.S. 502, 515 (2009) (recognizing that the Administrative Procedure Act ''makes no distinction . . . between initial agency action and subsequent agency action undoing or revising that action''); *Perez* v. *Mortg. Bankers Ass'n,* 575 U.S. 92, 101 (2015) (agencies may amend rules by using ''the same procedures when they amend . . . a rule as they used to issue the rule in the first instance''); 5 U.S.C. 553(e) (''Each agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule.'').

[57] See, *e.g.,* CAA section 211(o)(2)(B)(i) (statutory volume table prospectively determined by Congress), (o)(3)(B) (requirement for EPA to prospectively establish renewable fuel standards for the following year by Nov. 30 of the prior year).

[58] CAA section 211(o)(7).

[59] See 79 FR 25025 (May 2, 2014) (direct final rule adjusting the 2013 cellulosic biofuel applicable volume and percentage standard, after the compliance year was complete), 80 FR 77420 (December 14, 2015) (rescinding the 2011 cellulosic biofuel standard for utilizing methodology invalidated by the court); Denial of AFPM Petition for Waiver of 2016 Cellulosic Biofuel Standard, available at: *https://www.epa.gov/sites/default/files/2017-01/documents/afpm-rfs-petition-decision-ltr-2017-01-17.pdf;* 77 FR 70752 (November 27, 2012) (notice of denial of requests for a waiver of the renewable fuel standards for 2012–2013).

at that time, to revisit that rulemaking and subsequently adjust the standards.[60]

At the same time, reconsideration can also address the impacts of unexpected actions and market disruptions that occur after the standards have been set and that lead to high costs and uncertainty over future standards. In this action we are reconsidering and revising the 2020 standards in response to several unanticipated and exceptional events that have occurred since the promulgation of the 2020 standards and that have had direct and significant impacts on the fuels market and the ability of obligated parties to comply. We believe these events have created the unusual situation where retroactive reconsideration and revision of the 2020 standards is warranted. We discuss these events and our rationale for revising the 2020 standards further in Section III.C.[61]

E. Severability

The following portions of this rulemaking are mutually severable from each other, as numbered: (1) the volumes and percentage standards for 2020, 2021, and 2022; (2) the reaffirmation of the modified definitions in the percentage standard formulas regarding the projection of exempt gasoline and diesel fuel volumes discussed in Section V.B; (3) the provisions for biointermediates discussed in Section VII; and (4) the regulatory amendments discussed in Section VIII. Each of the regulatory amendments in Section VIII is also severable from all the other regulatory amendments. If any of the above portions is set aside by a reviewing court, we intend the remainder of this action to remain effective. For instance, if a reviewing court sets aside the modified definitions in the percentage standard formula, we intend the remainder of the rule (including the 2020–2022 volumes and percentage standards, biointermediates provisions, and other regulatory amendments) to remain effective.[62]

We also intend for the volumes and percentage standards for 2020–2022 to be severable from the 2022 supplemental volume and percentage standard such that if a court were to set aside the 2022 supplemental volume and percentage standard, the volumes and percentage standards for 2020–2022 would remain in place. Our authority and rationale for establishing the 2020–2022 volumes and standards is independent of those for establishing the supplemental volume and standard, and we do not believe that it would be appropriate to further delay implementation of the former if a court were to find defects in the latter. However, if the reverse were to occur, and a court were to set aside the 2020–2022 volumes and percentage standards, we would intend for the 2022 supplemental standard to be set aside along with the 2020, 2021, and 2022 volumes and percentage standards. This is because we do not find it appropriate for the 2022 supplemental standard to exist without the standard to which it is supplemental, *i.e.,* the 2022 total renewable fuel standard. As a practical matter, we also expect obligated parties to comply with the supplemental standard in the same compliance demonstration as the rest of the 2022 standards, as discussed further in Section IV.C.

III. Volume Requirements

In this rule we are establishing 2020, 2021, and 2022 cellulosic biofuel, advanced biofuel, and total renewable fuel volumes under the reset authority.[63] We are establishing the 2022 BBD volume under our set authority. The volumes we are establishing in this rule are generally consistent with the proposed volumes, with relatively minor adjustments to reflect updated data since the time of the proposed rule. As required by both the reset and set authorities, we have analyzed the statutory factors under CAA section 211(o)(2)(B)(ii). We have also coordinated with the Secretary of Energy and the Secretary of Agriculture, including through the interagency review process, and their input is reflected in this final rule.

In Section III.A, we summarize our analyses as they apply to each of three component categories of biofuel: cellulosic biofuel, non-cellulosic advanced biofuel, and conventional renewable fuel.[64] In Section III.B we discuss the relationship between the volume requirements for all three years as part of our review of the implementation of the program. In Sections III.C through G, we describe the volumes for 2020, 2021, and 2022, along with our supporting assessment of the statutory factors. In Section III.H, we summarize the fuel costs and energy security benefits of the volumes. Our preamble discussion provides a high-level, narrative summary of the statutory factors, focusing on the factors that we deem most appropriate. A more detailed discussion of all the statutory factors is set forth in the RIA.

A. EPA's Assessment of the Statutory Factors for Each Component Category of Biofuel

The volumes for 2020, 2021, and 2022 we are finalizing in this rule are based on our analyses of the statutory factors listed in CAA section 211(o)(2)(B)(ii). This section summarizes the results of our analyses. We received numerous comments on the supporting analyses presented in the Draft RIA of the proposed rule. The summaries presented here reflect these comments, where appropriate, as well as updated data since the time of the proposed rule. Further detail on our analyses of the statutory factors for each of the biofuel types can be found in the RIA. Additionally, a summary of the comments received on the analyses presented in the proposed rule can be found in the RTC document.

1. Cellulosic Biofuel

In EISA, Congress established escalating targets for cellulosic biofuel, reaching 16 billion gallons in 2022. After 2015, 84 percent of the growth in statutory volume of total renewable fuel was intended to come from cellulosic biofuel.[65] This indicates that Congress

[60] See Response to Comments at 173 (Docket Item No. EPA–HQ–OAR–2019–0136–2157).

[61] EPA also received two petitions from the American Fuel & Petrochemical Manufacturers (AFPM) and API in early 2020 seeking reconsideration of the 2020 annual rule under CAA section 307(d)(7)(B) in light of the *RFA* decision and its impact on EPA's projections of SREs in calculating the percentage standards. These petitions are available in the docket. See AFPM, *Petition for Administrative Reconsideration of Renewable Fuel Standard Program: Standards for 2020 and Biomass-Based Diesel Volume for 2021 and Other Changes, 85 FR 7,016 (Feb. 6, 2020)* (Mar. 24, 2020); API, *Petition for Reconsideration of the RFS 2020 Rule, EPA–HQ–OAR–2019–0136* (April 6, 2020). In the proposed rule, we did not determine whether these petitions met the standards for reconsideration under CAA section 307(d)(7)(B). Nonetheless, for the reasons described in this preamble, we believe it is appropriate to reconsider the 2020 standards, and we have provided the procedural process (*i.e.,* a CAA section 307(d) rulemaking to reconsider the 2020 standards) requested in the petitions.

[62] We recognize that we apply the modified definitions in calculating the percentage standards. However, as we explain further in Section V.B, even were we to use the prior definitions relating to SREs in the standard-setting formula, we would still project the same exempt volume of zero gallons. As a result, the application of the modified definitions does not affect and is severable from the percentage standards.

[63] As we explained in Section II.D, some of the volumes we are establishing in this action are also independently justified under the cellulosic waiver authority, but the policy and technical analysis for our exercise of the cellulosic waiver is subsumed under our analysis of the reset factors.

[64] Cellulosic biofuel corresponds directly to the statutory biofuel category. Cellulosic biofuel plus non-cellulosic advanced biofuel constitute the statutory advanced biofuel category. Finally, advanced biofuel plus conventional renewable fuel constitute the statutory total renewable fuel category. See CAA section 211(o)(2)(B)(i)(I)–(IV).

[65] From 2015 through 2022 the statutory target for cellulosic biofuel increases by 13.0 billion gallons,

intended the RFS program to provide a significant incentive for cellulosic biofuels and that the focus for years after 2015 was to be on cellulosic. Consistent with this intent, our assessment of the statutory factors suggests that cellulosic biofuels have multiple benefits, including the potential for very low lifecycle GHG emissions that meet or exceed the 60 percent GHG reduction threshold. Further, none of the feedstocks expected to be used to produce cellulosic biofuels through 2022 are specifically produced to be used as feedstocks for cellulosic biofuel production.

Compressed natural gas and liquid natural gas (CNG/LNG) derived from biogas represents the vast majority of the cellulosic biofuel volume projected through 2022. It is generally produced from waste materials or residues (*e.g.,* through biogas collection from landfills, municipal wastewater treatment facility digesters, agricultural digesters, and separated MSW digesters) and thus is not expected to affect the conversion of wetlands, ecosystems, and wildlife habitat, soil and water quality, the price and supply of agricultural commodities, or food prices. In some situations, such as at larger landfills, CNG/LNG derived from biogas may also be able to be produced at a price comparable to fossil-based natural gas. Despite this relatively low cost of production, the combination of the high cellulosic RIN price and the significant volume potential for CNG/LNG derived from biogas is expected to increase the price of gasoline and diesel by about $0.01 per gallon.[66]

A small amount of liquid cellulosic biofuel was produced in 2020 and 2021 and efforts continue to develop and commercialize various technologies. Many of their feedstocks (including agricultural residues and separated MSW) have limited uses in other markets.[67] Because of this, using these feedstocks to produce liquid cellulosic biofuel is not expected to have significant adverse impacts related to several of the statutory factors, including the conversion of wetlands, ecosystems and wildlife habitat, soil and water quality, the price and supply of agricultural commodities, and food prices.

However, the cost of producing liquid cellulosic biofuel is high. These high costs are generally the result of low yields (*e.g.,* gallons of fuel per ton of feedstocks) and the high capital costs of liquid cellulosic biofuel production facilities. In the near term (through 2022), the production of these fuels is likely to be dependent on relatively high cellulosic RIN prices (in addition to incentives from state-level programs such as California's low carbon fuel standard (LCFS) program) to be economically competitive with petroleum-based fuels.

2. Non-Cellulosic Advanced Biofuel

The volume targets established by Congress also anticipated significant growth in advanced biofuel beyond what is needed to satisfy the cellulosic biofuel standard. The statutory target for advanced biofuel in 2022 (21 billion gallons) allows for up to 5 billion gallons of non-cellulosic advanced biofuel to be used towards the advanced biofuel volume target. In practice, the vast majority of non-cellulosic advanced biofuel in the RFS program has been BBD, with relatively small volumes of sugarcane ethanol and other advanced biofuels. Some of the statutory factors assessed by EPA suggest that the targets for non-cellulosic advanced biofuel established by Congress, or even higher volumes, are still appropriate. Notably, all advanced biofuels have the potential to provide significant GHG reductions as they are required to achieve at least 50 percent GHG reductions relative to the petroleum fuels they displace. Some types of advanced biofuels, such as biodiesel and renewable diesel produced from fats, oils, and greases, have been determined to provide even greater reductions than the 50 percent threshold.

Because the vast majority of non-cellulosic advanced biofuels supplied to the U.S. historically have been advanced biodiesel and renewable diesel, this summary focuses on the impacts of these fuels. Advanced biodiesel and renewable diesel together comprise 95 percent or more of the total supply of non-cellulosic advanced biofuel over the last several years and are expected to supply all of the increase in advanced biofuel through 2022. High domestic production capacity and availability of imports indicate that volumes of non-cellulosic advanced biofuel in 2022 are likely to exceed the implied statutory targets. Similarly, the feedstocks used to make advanced biodiesel and renewable diesel (*e.g.,* soy oil, canola oil, and corn oil, as well as waste oils such as white grease, yellow grease, trap grease, poultry fat, and tallow) currently exist in sufficient quantities globally to supply these increasing volumes. These feedstocks have many existing uses, such that significant increases in volumes used for biofuels may potentially require replacement in other markets with suitable substitute feedstocks such as imported vegetable oils (including palm oil). However, there is also potential for some ongoing growth in the production of these feedstocks. As such, higher volume requirements for non-cellulosic advanced biofuel may provide benefits to the rural economy, such as increased domestic employment in the biofuels industry and increased income for biofuel feedstock producers.

However, some of the factors assessed would support lower volumes of advanced biofuel. For instance, as described in Chapter 9 of the RIA, the cost of biodiesel and renewable diesel is significantly higher than petroleum-based diesel fuel and is expected to remain so through 2022. These high costs are expected to result in higher fuel prices, especially for consumers of finished fuels with relatively low renewable content (*e.g.,* most diesel fuel). This in turn is expected to increase the cost to transport goods. Even if biodiesel and renewable diesel blends are priced similarly to petroleum diesel fuel at the pump after accounting for the relevant Federal and state incentives (including the RIN value), society as a whole nevertheless bears their full costs. Moreover, the fact that sufficient feedstocks exist to produce increasing quantities of advanced biodiesel and renewable diesel does not mean that those feedstocks are readily available or could be diverted to biofuel production without adverse consequences. As described in Chapter 5 of the RIA, we expect only limited quantities of fats, oils, and greases and distillers corn oil to be available for increased biodiesel and renewable diesel production in future years. We expect that the primary feedstock available to support significant increases in advanced biodiesel and renewable diesel through 2022 will be soybean oil and other vegetable oils whose primary markets are for food. Increased demand for soybean oil could potentially lead to diversion of feedstocks from food and other current uses in addition to further incentivizing

from 3.0 billion gallons to 16.0 billion gallons. During this same time period the statutory target for total renewable fuel increases by 15.5 billion gallons, from 20.5 billion gallons to 36.0 billion gallons. Thus, cellulosic biofuel was expected to account for 84 percent (13.0 billion gallons/15.5 billion gallons) of the total renewable fuel increase.

[66] See Chapters 5.1.2.2 and 9.4.3.2 of the RIA for a further discussion of the expected impact of RINs generated for CNG/LNG derived from biogas on the transportation fuel market.

[67] One potential exception is corn kernel fiber. Corn kernel fiber is a component of distillers grains, which is currently sold as animal feed. Depending on the type of animal to which the distillers grain is fed, corn kernel fiber removed from the distillers grain through conversion to cellulosic biofuel may need to be replaced with additional feed.

increased soybean crushing and soybean production and increased imports of soybean oil. It could also potentially lead to increased cultivation of other vegetable oils such as canola or palm oil as a substitute for diverted soybean oil. Increased vegetable oil production in the U.S. and abroad in turn could result in greater conversion of wetlands, adverse impacts on ecosystems and wildlife habitat, adverse impacts on water quality and supply, and increased prices for agricultural commodities and food prices.

3. Conventional Renewable Fuel

Some of the statutory factors assessed for conventional renewable fuel favor the implied statutory volume (15 billion gallons) or higher volumes, while other factors favor lower volumes. While conventional renewable fuels are generally required by EISA to achieve 20 percent GHG reductions relative to the petroleum fuels they displace, some conventional renewable fuel facilities exceed this threshold. Notably, EPA has developed an expedited petition process for ethanol production facilities using more efficient process technologies.[68] The statute, however, also contains grandfathering provisions exempting any facility that had begun construction on or before December 19, 2007, from this requirement, so not all producers of conventional renewable fuels meet or are required to meet the 20 percent GHG reduction threshold.[69]

The vast majority of conventional renewable fuel that has been supplied to the U.S. is corn ethanol. Domestic production capacity for corn ethanol exceeds 16 billion gallons. Production of corn ethanol in the U.S. reached its historical peak of 16.1 billion gallons in 2018.[70] Higher volumes of conventional renewable fuel production could result in more domestic jobs in the biofuels industry. At the same time, there are also significant volumes of palm biodiesel and renewable diesel that are produced internationally that could qualify as conventional renewable fuel under the grandfathering provisions of the RFS program. In the past, small volumes of grandfathered biodiesel and renewable diesel have been supplied to the U.S. and contributed to satisfying the RFS requirements.[71]

Some of the analyses we conducted support lower volumes of conventional renewable fuel. As with soy biodiesel, increased corn production in the U.S. could result in greater conversion of wetlands, adverse impacts on ecosystems and wildlife habitat, adverse impacts on water quality and supply, and increased prices for agricultural commodities and food prices. Furthermore, there are constraints on ethanol use. The market has not achieved 15 billion gallons of actual use of conventional renewable fuel in any year, including those in which the RFS standards included an implied conventional renewable fuel volume of 15 billion gallons. This was due to various factors, including limitations on ethanol use above the E10 blendwall, strong export markets for domestically-produced ethanol, the effect of SREs in depressing the effective RFS standards, and use of advanced biodiesel and renewable diesel, buoyed by its tax subsidy and other incentive programs such as California's LCFS program to meet the implied conventional portion of the total renewable fuel requirement.

While the use of ethanol as E10 has been, and continues to be, economical for refiners and blenders, the use of E10 alone has not been sufficient to achieve 15 billion gallons of ethanol use due to declining gasoline demand. The RFS program, along with the many other federal, state, local, and private incentive programs (*e.g.,* the Department of Agriculture's (USDA's) Biofuels Infrastructure Partnership Program and Higher Blends Infrastructure Incentive Program), have had limited success in inducing the use of higher-level ethanol blends. As a result, growth in the nationwide average gasoline ethanol concentration has virtually stagnated as the market reached the E10 blendwall. While the use of higher-level ethanol blends has increased since 2011, that growth has been small compared to prior growth in the use of E10 and non-ethanol biofuels.[72] We do not anticipate that use of higher-level ethanol blends through 2022 will increase rapidly enough to result in significantly greater volumes of ethanol consumption in the U.S., even with the incentives created by the RFS program and other incentive programs. Excess ethanol production has generally been directed to exports in recent years rather than selling greater volumes of E15 or E85 domestically. We expect these trends in exports to continue given international demand for ethanol.

Total demand for gasoline was lower in 2020 and 2021 and is expected to remain lower in 2022 relative to the volume of gasoline consumed in 2017–2019 according to data collected by EIA, which will limit the volume of ethanol used as E10.[73] Most notably, the COVID–19 pandemic caused a significant fall in gasoline demand and sales of E10 starting in 2020. We expect, therefore, that maintaining the implied 15 billion gallon statutory volume target for conventional renewable fuel going forward would require that volumes of biodiesel and renewable diesel (either conventional or advanced)—which are the least costly alternative biofuels to corn ethanol blended at concentrations greater than E10—increase to compensate for the limitations on corn ethanol use.[74]

Such expected increases in biodiesel and/or renewable diesel are associated with potentially significant adverse impacts. For instance, we project that much of this biodiesel and renewable diesel would be imported, limiting the potential positive impacts on the domestic rural economy. Further, these fuels could be sourced from grandfathered facilities that are not required by EPA's regulations to achieve any GHG reductions relative to petroleum fuels. If imported biodiesel and renewable diesel were to increase, we would expect either an increase in the use of petroleum fuels from countries that previously used these fuels, or, alternatively, an expansion of palm oil production to produce biodiesel and renewable diesel, likely resulting in additional foreign land being converted to cropland for the production of palm oil. Were such international land-use change to occur, there would very likely be significant

[68] EPA has developed an ''Efficient Producer Petition Process,'' which encourages adoption of efficiency improvements in new ethanol facilities by expediting petition review and approval. Existing EPA estimates for corn starch ethanol produced in 2022 using a dry mill process and natural gas fired process heat range from a 42 percent to a 17 percent reduction over baseline gasoline, depending on the technologies used at the production facility. See the RIA for the Renewable Fuel Standard Program (RFS2): Final Rule.

[69] See CAA section 211(o)(2)(A)(i). According to data from 2021, approximately 80% of all corn ethanol generated RINs using a grandfathered pathway while approximately 20% of all corn ethanol generated RINs using a pathway required to meet or exceed the 20% GHG reduction threshold.

[70] Energy Information Administration (EIA) Monthly Energy Review.

[71] Use of grandfathered biodiesel and renewable diesel reached a maximum of 157 million gallons in 2016. Since 2018, use of grandfathered biodiesel and renewable diesel has been very small (less than 1 million gallons each year). See Chapter 1.6 of the RIA.

[72] Since EPA granted E15 a CAA 211(f)(4) waiver in 2011 allowing E15 sales, those sales have increased slowly but steadily, as described further in Chapters 1 and 5.5 of the RIA.

[73] EIA's Monthly Energy Review (MER) for February 2022 estimates gasoline consumption of 123.7 billion gallons in 2020 and 135.0 billion gallons in 2021, while the January 2022 Short-Term Energy Outlook (STEO) projects 138.9 billion gallons in 2022. The MER reported gasoline consumption in 2017–2019 at 143.0–142.7 billion gallons annually.

[74] See Chapter 2 of the RIA for our projections of biofuels that will be supplied to satisfy the volume requirements in each year.

adverse impacts on the environment, which may include impacts on air wetlands, ecosystems and wildlife habitats, air quality, water quality, water supply, and GHG emissions.

B. Interactions Between the RFS Annual Volumes

In resetting the volumes, EPA must review the implementation of the program as required by CAA section 211(o)(2)(B)(ii). In conducting this review, we have completed a detailed assessment of the RFS program, as well as renewable fuel production and use more generally, since the beginning of the RFS program. This review is set forth at length in Chapter 1 of the RIA and in the RTC document. In this section and elsewhere in the preamble, we focus on specific aspects of our review as we deem appropriate.

In our review, we have carefully considered the carryover RIN bank [75] and carryforward deficits, which are two compliance mechanisms that have been historically important to the implementation of the RFS program and that we expect to continue to play a key role. Specifically, the RFS regulations contain provisions that allow an obligated party to satisfy their RFS obligations for a given year by using up to 20 percent of RINs generated in the previous year.[76] Similarly, the RFS regulations also allow an obligated party to carry forward a compliance deficit from one year to the next, provided the party meets their full RFS obligations in the following year.[77] These provisions operate such that any excess RINs generated in one year, or any RIN deficits, can impact the market for RINs and renewable fuels in the next year. As such, compliance with the RFS standards for one year is inherently intertwined with compliance for the prior year. Section III.B.1 below discusses the projected volume of carryover RINs (net of carryforward deficits) that will be available for use towards compliance with the 2020, 2021, and 2022 standards. We also evaluate whether we should set the 2020, 2021, and 2022 volumes at levels that would intentionally reduce the size of the carryover RIN bank, and we find that this would not be appropriate. Section III.B.2 then addresses some special considerations regarding cellulosic carryover RINs, and we also conclude that it would not be appropriate to intentionally draw down the bank of cellulosic carryover RINs by including them in the cellulosic biofuel volume requirement.

In reviewing the implementation of the program, we also recognize the difference between the ability of retroactive versus prospective volume requirements to affect renewable fuel use. As we explained in Section II, the 2020 and 2021 standards will be entirely retrospective, while the 2022 standards will apply prospectively for the remainder of 2022. In Section III.B.3 below, we explain that the retroactive 2020 and 2021 standards will not affect renewable fuel use in 2020 and 2021, respectively, but we do expect the somewhat prospective 2022 standards to significantly affect renewable fuel use in 2022. Given this dynamic, we believe that higher, market-forcing renewable fuel volumes should occur in 2022 as opposed to 2020 or 2021.

1. Treatment of Carryover RINs

Consistent with our approach in recent annual rules and the proposed rule, we have considered the availability and role of carryover RINs in setting the volume requirements for 2020, 2021, and 2022. In general, we have authority to consider the size of the carryover RIN bank in deciding whether and to what extent to exercise any of our discretionary waiver authorities.[78] EPA's approach to the consideration of carryover RINs in exercising our cellulosic waiver authority was affirmed in *Monroe Energy* and *ACE.*[79]

As noted in past RFS annual rules, carryover RINs are a foundational element of the design and implementation of the RFS program.[80] A bank of carryover RINs is extremely important in providing a liquid and well-functioning RIN market upon which success of the entire program depends, and in providing obligated parties compliance flexibility in the face of substantial uncertainties in the transportation fuel marketplace.[81] Carryover RINs enable parties ''long'' on RINs to trade them to those ''short'' on RINs instead of forcing all obligated parties to comply through physical blending. Carryover RINs also provide flexibility and reduce spikes in compliance costs in the face of a variety of unforeseeable circumstances—including weather-related damage to renewable fuel feedstocks and other circumstances potentially affecting the production and distribution of renewable fuel—that could limit the availability of RINs.

Just as the economy as a whole is able to function efficiently when individuals and businesses prudently plan for unforeseen events by maintaining inventories and reserve money accounts, we believe that the RFS program is able to function when sufficient carryover RINs are held in reserve for potential use by the RIN holders themselves, or for possible sale to others that may not have established their own carryover RIN reserves. Were there to be too few RINs in reserve, then even minor disruptions causing shortfalls in renewable fuel production or distribution or higher than expected transportation fuel demand (requiring greater volumes of renewable fuel to comply with the percentage standards that apply to all volumes of transportation fuel, including the unexpected volumes) could result in deficits and/or noncompliance by parties without RIN reserves. Moreover, because carryover RINs are individually and unequally held by market participants, a small carryover RIN bank may negatively impact the RIN market,

[75] CAA section 211(o)(5) requires that EPA establish a credit program as part of its RFS regulations, and that the credits be valid for obligated parties to show compliance for 12 months as of the date of generation. EPA implemented this requirement through the use of RINs, which are generated for the production of qualifying renewable fuels. Obligated parties can comply by blending renewable fuels themselves, or by purchasing the RINs that represent the renewable fuels from other parties that perform the blending. There are different ''D'' codes representing the different RFS standards that the various renewable fuels can be used to comply with. (*e.g.,* D3 represents cellulosic biofuel that can be used to comply with the cellulosic biofuel standard.) RINs can be used to demonstrate compliance for the year in which they are generated or the subsequent compliance year. Obligated parties can obtain more RINs than they need in a given compliance year, allowing them to ''carry over'' these excess RINs for use in the subsequent compliance year, although our regulations limit the use of these carryover RINs to 20 percent of the obligated party's RVO. For the bank of carryover RINs to be preserved from one year to the next, individual carryover RINs are used for compliance before they expire and are essentially replaced with newer vintage RINs that are then held for use in the next year. For example, vintage 2020 carryover RINs must be used for compliance in 2021, or they will expire. However, vintage 2021 RINs can then be ''banked'' for use in 2022.

[76] 40 CFR 80.1427(a)(5).

[77] 40 CFR 80.1427(b).

[78] These discretionary waiver authorities include the reset and set authorities, CAA section 211(o)(7)(F) and 211(o)(2)(B)(ii) (both of which direct EPA to establish RFS volumes based upon a ''review of the implementation of the program''), discretionary portion of the cellulosic waiver authority, CAA section 211(o)(7)(D)(i) (''the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels requirement''), the general waiver authority, CAA section 211(o)(7)(A) (''The Administrator . . . may waive the requirements''), and the BBD waiver authority with regard to the extent of the reduction in the BBD volume, CAA section 211(o)(7)(E)(ii) (''the Administrator . . . shall issue an order to reduce . . . the quantity of biomass-based diesel . . . by an appropriate quantity'').

[79] *Monroe Energy,* 750 F.3d 909; *ACE,* 864 F.3d at 713.

[80] See, *e.g.,* 72 FR 23904 (May 1, 2007).

[81] See 80 FR 77482–87 (December 14, 2015), 81 FR 89754–55 (December 12, 2016), 82 FR 58493–95 (December 12, 2017), 83 FR 63708–10 (December 11, 2018), 85 FR 7016 (February 6, 2020).

even when the market overall could satisfy the standards. In such a case, market disruptions could force the need for a retroactive waiver of the standards, undermining the market certainty so critical to the RFS program. For all of these reasons, the collective carryover RIN bank provides a necessary programmatic buffer that helps facilitate compliance by individual obligated parties, provides for smooth overall functioning of the program to the benefit of all market participants, and is consistent with the statutory provision allowing for the generation and use of credits. We anticipate that the carryover RIN bank will serve this very purpose for the still upcoming compliance with the 2019 standards for small refineries, when actual biofuel use in that year is expected to have fallen considerably short of the RFS standards.[82]

EPA can also rely on the availability of carryover RINs to support market-forcing volumes that may not be able to be met with renewable fuel production and use in that year, and in the context of the 2013 RFS rulemaking we noted that an abundance of carryover RINs available in that year, together with possible increases in renewable fuel production and import, justified maintaining the advanced and total renewable fuel volume requirements for that year at the levels specified in the statute.[83]

a. Carryover RIN Bank Size

We project a significant drawdown in the number of carryover RINs as a result of compliance with the 2019 standards. After compliance with the 2019 standards, we project that there will be approximately 1.83 billion total carryover RINs available, a decrease of 1.65 billion RINs from the previous estimate of 3.48 billion total carryover RINs in the 2020 final rule.[84] Since we are setting both the 2020 and 2021 volume requirements at the actual volume of renewable fuel consumed in those years, we project that 1.83 billion total carryover RINs will be available for compliance with the 2022 standards (including the 2022 supplemental standard) as well.

However, there remains uncertainty surrounding the ultimate number of carryover RINs that will be available for compliance with the 2020, 2021, and 2022 standards (including the 2022 supplemental standard) for several reasons, including the fact that compliance with the 2019 standards has not yet occurred for all parties. Furthermore, we note that there have been enforcement actions in past years that have resulted in the retirement of carryover RINs to make up for the generation and use of invalid RINs and/or the failure to retire RINs for exported renewable fuel. To the extent that there are enforcement actions in the future, they could have similar results and require that obligated parties or renewable fuel exporters settle past enforcement-related obligations in addition to complying with the annual standards. In light of these uncertainties, the net result could be a total carryover RIN bank larger or smaller than 1.83 billion RINs.

b. EPA's Decision Regarding the Treatment of Carryover RINs

We evaluated the volume of carryover RINs projected to be available and considered whether we should intentionally draw down the carryover RIN bank in setting the 2020, 2021, and 2022 volume requirements (including the 2022 supplemental volume). In the proposed rule we stated that we did not believe that it would be appropriate to intentionally draw down the carryover RIN bank, and we received many comments on this proposed decision. Commenters supporting EPA's proposed approach—generally obligated parties—agreed with EPA's statements that maintaining the carryover RIN bank was important to provide liquidity and maintain a functioning RIN market. Many of these commenters noted that compliance with the 2019 standards had already resulted in the significant drawdown of the carryover RIN bank and fewer carryover RINs were available for use in 2020 than in previous years. Some of these commenters also stated that revising the 2020 volumes to maintain the existing bank of carryover RINs was insufficient, and that EPA should lower volumes further to increase the number of available carryover RINs. Other commenters—generally renewable fuel producers—opposed EPA's proposal not to draw down the carryover RIN bank. These parties generally raised concerns that a large number of carryover RINs could reduce demand for renewable fuels. Some of these commenters similarly suggested that a large carryover RIN bank suppresses RIN prices, and that EPA had not demonstrated why a carryover RIN bank of 1.8 billion RINs (or even a lower volume) was insufficient to enable the RIN market to function. Our consideration of these comments is described briefly in this section, and in greater detail in Section 2 of the RTC document.

In this final rule we are maintaining the proposed approach of not intentionally drawing down the carryover RIN bank. In reaching this determination, we considered the functions of the carryover RIN bank, its projected size, the uncertainties associated with its projection, its potential impact on the production and use of renewable fuel, the ability and need for obligated parties to draw on it to comply with their obligations (both on an individual basis and on a market-wide basis), and the impacts of drawing it down on obligated parties and the fuels market more broadly. As previously described, the bank of carryover RINs provides important and necessary programmatic functions—including acting as a cost spike buffer—that will both facilitate individual compliance and provide for smooth overall functioning of the program. We believe that a balanced consideration of the possible role of carryover RINs in achieving the statutory volumes, versus maintaining an adequate bank of carryover RINs for important programmatic functions, is appropriate when EPA exercises its discretion under its statutory authorities.

Furthermore, as noted earlier, after compliance with the 2019 standards, we project that there will be a significant drawdown in the number of carryover RINs from 3.48 down to 1.83 billion RINs. This drawdown is due to a combination of factors, including higher-than-projected gasoline and diesel fuel use,[85] a shortfall in renewable fuel production and use,[86] and EPA denying all SRE petitions for 2019.[87] While there is some uncertainty as to the precise amount of the

[82] EPA extended the 2019 compliance deadline for small refineries to the first quarterly reporting deadline after the effective date of the 2021 standards (*i.e.,* this action). See 87 FR 5696 (February 2, 2022).

[83] 79 FR 49793–95 (August 15, 2013).

[84] The calculations performed to estimate the size of the carryover RIN bank can be found in the memorandum, ''Carryover RIN Bank Calculations for 2020–2022 Final Rule,'' available in the docket for this action.

[85] In establishing the 2019 standards, we projected that 180.4 billion gallons of gasoline and diesel fuel would be used in 2019. However, based on 2019 RFS compliance data, 185.8 billion gallons was actually used. See Table 1 at *https://www.epa.gov/fuels-registration-reporting-and-compliance-help/annual-compliance-data-obligated-parties-and.* This resulted in an increase in the renewable fuel volumes required by the 2019 percentage standards compared to the volumes the standards were based on.

[86] While renewable fuel use in 2019 was higher than in 2018, it was only marginally so and failed to keep up with the increase in the renewable fuel standards and the larger-than-expected increase in gasoline and diesel fuel use.

[87] EPA issued a large number of SREs in recent years, leading to significant increase in the size of the carryover RIN bank. However, EPA recently denied all SRE petitions for 2019, resulting in these small refineries—most of which had been exempt in recent years—needing to acquire RINs to demonstrate compliance or carryforward a deficit.

drawdown for the reasons noted above, it is virtually certain that the draw down will be significant in magnitude.

As we describe further in Section III.C, there was an unanticipated and significant shortfall in RIN generation in 2020 relative to the volumes that the 2020 final rule intended for the market to achieve. The shortfall is anticipated to be smaller than the 1.83 billion total carryover RINs that we project will be available in 2020. While the carryover RIN bank would likely be sufficient to cover the shortfall in renewable fuel production in 2020 on aggregate, this does not mean that all obligated parties would have access to these carryover RINs. RIN holding data indicates that just four obligated parties—which represented approximately 40 percent of the 2019 total RVO—currently hold over half of all available 2019 RINs, and nine obligated parties—which represented approximately 55 percent of the 2019 total RVO—hold over three-quarters of all available 2019 RINs.[88] Conversely, obligated parties that collectively represent approximately fifteen percent of the 2019 total RVO currently do not hold any 2019 RINs whatsoever; thus, these parties may not have access to 2019 carryover RINs to meet their 2020 obligations. Requiring compliance with the original 2020 standards could therefore cause significant disruptions in the RIN market, especially in light of the fact that at least 30 obligated parties carried compliance deficits from 2019 into 2020.[89] These parties must fully meet their 2020 obligations or they will be in non-compliance with their RFS obligations. That is, they do not have the option to carry forward a deficit for a second year in a row.[90] It is possible that these parties could purchase additional RINs on the market. However, given the shrinking size of the carryover RIN bank, the current holders of additional RINs may choose to sell their RINs only at very high costs or in the alternative choose to not sell their RINs but retain them for their own compliance purposes. Thus, and as we explain further in Section III.C, there is a substantial probability that some parties would not be able to acquire sufficient RINs to comply with the original 2020 standards.

However, by revising the 2020 standards to the actual volume of renewable fuel consumed, additional 2019 RINs will likely become available in the marketplace. Parties holding more 2019 RINs than are needed or able to be used (*i.e.,* above the 20 percent carryover limit) after the revision of the 2020 standards are also more likely to trade those RINs, making them available to other obligated parties for compliance with the 2020 standards. These RINs can also be used by small refineries to demonstrate compliance with their 2019 obligations, potentially reducing the number of obligated parties that will need to carry forward a deficit.

The advanced biofuel and total renewable fuel standards we are finalizing for 2022, moreover, are significantly higher than the volume of renewable fuel used in 2020 and 2021. As we explain further in Sections III.E and IV, while we believe that the market is capable of achieving the 2022 standards (including the 2022 supplemental standard), those standards are market-forcing and represent a significant increase in renewable fuel use from the levels used in 2020 and 2021. The market may fall short of using such levels of biofuels, in which case obligated parties may rely on carryover RINs to achieve compliance. We believe that preserving the carryover RIN bank to provide this buffer in the event of a shortfall is important. Given these factors, as well as the uneven holding of carryover RINs among obligated parties noted above, we believe that further increasing the standards with the intent to draw down the carryover RIN bank could lead to significant deficit carryovers and non-compliance by some obligated parties that own relatively few or no carryover RINs. We do not believe this is an appropriate outcome. Therefore, consistent with the approach we have taken in recent annual rules, we are not setting the 2020, 2021, and 2022 volume requirements (including the 2022 supplemental standard) at levels that would intentionally draw down the bank of carryover RINs.

We are not determining that 1.83 billion RINs is a bright-line threshold for the number of carryover RINs that provides sufficient market liquidity and allows the carryover RIN bank to play its important programmatic functions. As in past years, we are instead evaluating, on a case-by-case basis, the size of the carryover RIN bank in the context of the RFS standards and the broader transportation fuel market at this time. Based upon this holistic, case-by-case evaluation, we are concluding that it would be inappropriate to intentionally reduce the number of carryover RINs by establishing higher volumes than what the market achieved in 2020 or 2021 or what we anticipate the market is capable of achieving in 2022. Conversely, while an even larger carryover RIN bank may provide greater assurance of market liquidity, we do not believe it would be appropriate to set the standards at levels specifically designed to increase the number of carryover RINs available to obligated parties. As we explain further in Sections III.D and E, for instance, given the market-forcing intent of the RFS program, it would be inappropriate to establish the 2020 and 2021 volumes below the levels the market actually used simply to increase the carryover RIN bank.

2. Consideration of Cellulosic Carryover RINs

Section 211(o)(7)(D)(i) of the CAA requires EPA to set the applicable volume of cellulosic biofuel at the ''projected volume available during [the] calendar year.'' EPA has consistently interpreted the statutory phrase ''projected volume available'' to refer to the volume of qualifying cellulosic biofuel projected to be produced or imported and available for use as transportation fuel in the U.S. in that year. This is equivalent to the projected number of cellulosic RINs generated in the year that are available for obligated parties to use for compliance. Since we first exercised the cellulosic waiver authority in the 2010 annual rule, we have never included cellulosic carryover RINs in this projection.

In the proposed rule we requested comment on whether to include cellulosic carryover RINs as part of the ''projected volume available.'' Under this interpretation of the cellulosic waiver authority, the ''projected volume available'' would include the projected volume of cellulosic biofuel plus the volume of available cellulosic carryover RINs from the prior year. EPA received a number of comments on this issue, including those supporting EPA's interpretation of ''projected volume available'' in previous rules and those supporting an interpretation of this phrase that would include available carryover RINs. Both groups of commenters argued that their preferred interpretation was more consistent with the statutory language and the policy goals of the RFS program. Commenters opposed to including cellulosic carryover RINs in the projected volume available generally argued that cellulosic carryover RINs provided obligated parties important compliance

[88] See ''2019 RIN Holding Data as of March 1, 2022,'' available in the docket for this action. Carryover RIN holdings are presented in relation to the 2019 total RVO as this is the most recent year for which EPA has compliance data.

[89] This number is based on 2019 compliance reports submitted to EPA to date. There is still some uncertainty in the number of obligated parties that will carry a deficit into 2020 as EPA has extended the deadline for small refineries to submit their 2019 compliance reports. See 87 FR 5969 (February 2, 2022).

[90] See 40 CFR 80.1427(b).

flexibility, just like other categories of carryover RINs. They further argued that cellulosic carryover RINs were especially important in light of the uncertainty associated with cellulosic biofuel production projections. Conversely, commenters that supported including cellulosic carryover RINs in the projected volume available generally argued that despite the continued rapid growth in cellulosic biofuel volumes, excess cellulosic carryover RINs could result in lower cellulosic RIN prices, as happened in 2019 and 2020. Lower cellulosic RIN prices in turn could negatively affect investment in cellulosic biofuel production. These commenters stated that adopting this new interpretation would ensure that there was a strong market for cellulosic biofuel and cellulosic RINs in the future and would result in increased investment in cellulosic biofuel production and ultimately increased cellulosic biofuel production. Finally, these commenters generally suggested that the existence of cellulosic waiver credits adequately addressed obligated parties' need for compliance flexibility.

In this rule we are finalizing cellulosic biofuel volumes for 2020–2022 that are based on the volume of qualifying cellulosic biofuel projected to be produced or imported and available for use as transportation fuel in the U.S. in that year. This is equivalent to the projected number of cellulosic RINs generated in the year that are available for obligated parties to use for compliance. Consistent with EPA's longstanding approach, we have not included available cellulosic carryover RINs in our projection of the projected volume available. The statutory term ''projected volume available'' does not directly address the topic of carryover RINs. Indeed, the cellulosic waiver provision (CAA section 211(o)(7)(D)(i)) does not mention carryover RINs at all, or otherwise refer to the statutory basis for such RINs (CAA section 211(o)(5)). Thus, we believe there are multiple possible interpretations of this ambiguous statutory provision, including the interpretation adopted by EPA in previous years.

We continue to believe that the interpretation EPA adopted in previous years strikes an appropriate balance between the interests of the cellulosic biofuel producers, those obligated to purchase and use cellulosic biofuels and cellulosic RINs, and consumers; and best ensures the ongoing smooth implementation of the RFS program.[91] Below we summarize the considerations we balanced in deciding to retain our longstanding approach in this rulemaking; further discussion is contained in the RTC document.

While we acknowledge that some aspects of the cellulosic biofuel category (such as the cellulosic waiver authority and the cellulosic waiver credits)[92] are unique, we nevertheless believe the benefits of carryover RINs, discussed in Section III.B.1, generally apply to cellulosic carryover RINs. Cellulosic waiver credits can help obligated parties satisfy their cellulosic biofuel volume obligation, but they are not a full replacement for cellulosic RINs. Rather, to satisfy their cellulosic biofuel obligation, obligated parties must retire either a cellulosic RIN or a cellulosic waiver credit plus an advanced RIN.[93] In other words, in the event of a shortfall in cellulosic RIN generation, absent cellulosic carryover RINs, the market must still rely on the advanced carryover RIN bank in addition to cellulosic waiver credits.

Furthermore, because there are no statutory volume targets for cellulosic biofuel in 2023, and because we are required to establish the cellulosic biofuel volumes for 2023 and future years on the assumption that the Administrator will not need to issue a waiver for these years under CAA section 211(o)(2)(B)(iv), we do not anticipate using the cellulosic waiver authority for 2023. This means that it is unlikely that cellulosic waiver credits will be available in 2023.[94] Including cellulosic carryover RINs in the projected volume available through 2022 would also likely result in few to no cellulosic carryover RINs available for use in 2023. Thus, changing our interpretation now to draw down the cellulosic carryover RIN bank in this rule would likely create a scenario where few or no cellulosic carryover RINs and no cellulosic waiver credits would be available in 2023. Obligated parties would thus effectively lose both important compliance flexibilities in that year. We do not believe this would be appropriate.

We recognize that the potential for lower cellulosic RIN prices could have a directionally negative impact on cellulosic biofuel investment. The market circumstances that resulted in lower cellulosic RIN prices in 2019–2020, however, appears to be the result of more than just the availability of cellulosic carryover RINs. Similar volumes of cellulosic carryover RINs, and higher levels of available cellulosic carryover RINs as a percentage of the cellulosic biofuel requirement, were available in prior years when cellulosic RIN prices were also much higher relative to 2019–2020.[95] EPA's assessment of the drop in cellulosic RIN prices in 2019–2020 suggests that there were multiple contributing factors, including a new projection methodology for cellulosic biofuel that under-projected cellulosic biofuel production in 2018[96] and the granting of a significant number of SREs for 2017 and 2018.

In projecting cellulosic biofuel production for 2022 using the most recent available data, and denying pending SRE petitions in a separate action, we are addressing several of the factors that we believe led to the drop in cellulosic RIN prices in 2019–2020. Most immediately, we expect the size of the cellulosic carryover RIN bank to drop from 49 million to 38 million RINs following 2019 compliance. We are continuing to project significant increases in cellulosic biofuel availability through 2022, based upon a methodology that takes neutral aim at accuracy. We do not expect the standards we set, moreover, to be effectively reduced by future grants of SRE petitions as they have in some past years. As discussed in Section VII, we are also finalizing regulations to allow for the production of qualifying

[91] See *Chevron USA, Inc.* v. *Natural Resources Defense Council, Inc.,* 467 U.S. 837 (1984).

[92] Cellulosic waiver credits may be purchased from EPA by obligated parties in years when EPA uses the cellulosic waiver authority to reduce the statutory volumes of cellulosic biofuel. Regulations related to cellulosic waiver credits can be found in 40 CFR 80.1456.

[93] See 40 CFR 80.1456(c)(4).

[94] Moreover, unlike with carryover RINs, obligated parties are not allowed to carry over cellulosic waiver credits for use in the following year or use them to meet deficits from the prior year. See 40 CFR 80.1456(b)(1), (4). Thus, although cellulosic waiver credits are available for 2022, obligated parties will not be able to carry those over for use in 2023.

[95] The number of cellulosic carryover RINs available for use in 2016 and 2017 were 39 million RINs (17 percent of the 2016 cellulosic biofuel volume requirement) and 34 million RINs (11 percent of the 2017 cellulosic biofuel volume requirement) respectively. These numbers are similar to the number of cellulosic carryover RINs available for use in 2019 and 2020 (49 million RINs or 12 percent of the 2018 cellulosic biofuel volume requirement and 38 million RINs or 6 percent of the 2020 cellulosic biofuel volume requirement). In 2016 and 2017 cellulosic RIN prices averaged $1.89 and $2.78 per RIN. In 2019 and 2020 cellulosic RIN prices averaged $1.15 and $1.49 per RIN.

[96] EPA has continued to apply this projection methodology in years following 2018, including in this rule. This same projection methodology resulted in an over-projection of cellulosic biofuel production in 2019 and 2020. As such, the methodology does not inherently result in under-projections (or over-projections) of cellulosic biofuel generally or CNG/LNG derived from biogas more specifically. Further discussion of EPA's cellulosic biofuel projection methodology can be found in Chapter 5.1 of the RIA.

renewable fuel, including cellulosic biofuel, from biointermediates. While we cannot predict future RIN prices, this combination of actions should provide a strong market signal of EPA's intention to support a robust cellulosic biofuel market.

Further, despite the drop in the cellulosic RIN price in 2019–2020, cellulosic biofuel production has increased significantly each year since 2014, demonstrating that cellulosic biofuel production can and has continued to increase despite volatility in the cellulosic RIN price.[97] We do not believe that changing our interpretation of the ''projected volume available'' to include cellulosic carryover RINs is at this point necessary in order to ensure future growth in cellulosic biofuels. Instead, we believe that the existing policies described here are sufficient to provide the market with adequate certainty for investment and growth in cellulosic biofuels. EPA will continue to monitor the cellulosic biofuel market closely and assess the efficacy of the program in providing a sufficient investment environment for cellulosic biofuels.

Finally, we note that the legal arguments made by commenters supporting a change to include cellulosic carryover RINs in the cellulosic volume, while still relevant, are less so in the context of this rulemaking. Commenters' legal arguments generally focused on an interpretation of the cellulosic waiver authority. In this rulemaking, however, we are concurrently exercising both the cellulosic waiver authority and the reset authority. Under the reset authority, we have broad discretion to establish volumes, including cellulosic biofuel volumes lower than the volume required under the cellulosic waiver. Even were EPA's interpretation of ''projected volume available'' erroneous, we would nonetheless reduce the cellulosic biofuel volumes to the final volumes we are establishing in this document (not including carryover RINs) utilizing the reset authority. Thus, regardless of whether the commenters are correct about EPA's legal authority under the cellulosic waiver, we have legal authority under the reset authority to establish volumes at the projected volume available of cellulosic biofuel, excluding any cellulosic carryover RINs.

3. Ability for the RFS Volumes To Impact Renewable Fuel Supply

In developing the volume requirements, we considered the timing of this action and its ability to impact renewable fuel production, imports, and use. Since only prospective requirements have a significant chance of affecting actual renewable fuel use, we proposed to establish higher volumes for 2022. By contrast, imposing higher volumes for 2020 or 2021 would have no effect on the production or use of renewable fuels in those years. The proposal noted that retroactively requiring volumes higher than what the market has actually supplied could create market disruption and thus interfere with program implementation without advancing program goals.

Commenters generally acknowledged that higher volume requirements for 2020 and 2021 would not impact renewable fuel production and use in those years. However, some commenters stated that revising the 2020 volumes after previously establishing them would reduce confidence in the market-forcing nature of the RFS program and could negatively impact renewable fuel production in future years. While we recognize these concerns, we believe that the unique circumstances in 2020 (described throughout Section III and especially in Section III.C) justify revising the 2020 volumes.[98]

In this rule we are finalizing volumes consistent with the proposed approach: establishing volumes for 2020 and 2021 at the level of renewable fuel used in these years and establishing higher renewable fuel volumes for 2022. With respect to 2020 and 2021, these years have already passed. Both common sense as well as our review of the implementation of the RFS program indicate that this final rule cannot retroactively affect the production or use of renewable fuels in 2020 or 2021, or consequently affect the statutory reset factors in CAA section 211(o)(2)(B)(ii)(I)–(VI) insofar as they are based on renewable fuel production or use that occurred during those years (*e.g.,* the impacts of the use of renewable fuels in 2020 and 2021 on cost, the environment, and so forth). It is possible that the proposed rule, which was signed on December 7, 2021, may have impacted renewable fuel production and use during 2021. Given that the proposal came out in December and was only a proposal and not a final rule, however, those impacts were likely to be quite limited. Any market effects of the 2020 and 2021 volumes finalized in this rule will be felt after the rule is promulgated and mediated through the carryover RIN bank. As we explain below, these mediated market effects can be evaluated with regard to the statutory factors and favor establishing 2020 and 2021 volumes at those actually used.

The situation for 2022, however, is different. We are issuing this final rule with a significant portion of the year remaining. Moreover, we are finalizing volumes using the same policy approach as in the proposal, which was issued in December 2021, albeit with some small changes due to updated data, allowing the proposal to have provided regulated entities with additional notice of the potential requirements. Thus, we believe that the RFS standards for 2022 will be able to significantly affect market decisions for renewable fuel production, import, and use in 2022, and consequently the related statutory factors. In turn, we believe it is appropriate to increase renewable fuel requirements in 2022, when this rule has a much greater chance of actually increasing renewable fuel use and production, as opposed to 2020 or 2021.

Further, there are also disadvantages to requiring higher volumes for 2020 and 2021 retroactively, or similarly, to maintaining the 2020 standards in the original final rule. Such higher volumes would cause some combination of a drawdown of the carryover RIN bank, carryforward deficits, or potentially even non-compliance by obligated parties. While we have previously found an intentional drawdown of the carryover RIN bank to be appropriate in one case, we do not think it is appropriate to do so in this rule for reasons we described above in Section III.B.1. We also do not think that intentionally relying on or effectively compelling carryforward deficits or intentionally causing non-compliance is generally appropriate.

Renewable fuel production and use in 2020 was significantly lower than what we projected in the original 2020 final rule. As discussed in Section III.C, compliance with the original 2020 standards would likely result in a significant drawdown in the number of carryover RINs available for use in 2021 and 2022. As discussed in Section III.B.1, we currently project that as a result of compliance with the 2019 standards, the number of carryover RINs available for compliance with the 2020 standards will be approximately 1.83 billion RINs, a considerable drop from the 3.48 billion total carryover RINs we projected in the 2020 final rule. We expect that as a result of revising the 2020 standards to equal the actual volume of renewable fuels consumed, the number of carryover RINs available for compliance with the 2021 and 2022

[97] See Section 5.1 of the RIA for more detail on annual cellulosic biofuel production.

[98] Further discussion of this topic can be found in Section 6 of the RTC document.

standards will remain at 1.83 billion RINs.

Were we not to modify the 2020 standards, we anticipate that the total number of carryover RINs available for compliance with the 2021 and 2022 standards would decrease substantially, to 680 million RINs, or less than 4 percent of the 2022 total renewable fuel standard.[99] This would be the lowest quantity of carryover RINs available since EPA began projecting the size of the carryover RIN bank in 2013, far below the levels of carryover RINs available to obligated parties in recent years. A well-functioning RIN market is foundational for allowing obligated parties to comply with their RFS mandates, particularly for obligated parties that do not themselves produce or blend renewable fuels. Drawing down the carryover RIN bank to this level could significantly disrupt the functionality of the RIN market.

This drawdown in the carryover RIN bank would be particularly concerning given the uneven nature of carryover RIN holdings and the number of obligated parties that carried deficits into 2020 discussed in the previous section. Taken together, these facts present a significant risk of market disruption were we to not revise the 2020 standards. A number of obligated parties that have not already carried deficits into 2020 would likely have to carry deficits into 2021. Other parties may have to carry deficits into 2022. Some parties, especially those that have already carried a deficit into 2020, may not be able to acquire sufficient RINs for compliance in 2021 or 2022.[100] If we were to leave the 2020 standards unchanged, we find that there would be a substantial probability that some obligated parties would not be able to comply with those standards or with the 2021 and 2022 standards we are finalizing in this action.

We emphasize that the above risks arise from the unanticipated shortfall in 2020 renewable fuel use and the inherent potential for future unexpected market events. In turn, noncompliance may lead to significant adverse business impacts on these parties as well as to civil penalties. Particularly given our legal duty to consider burdens on obligated parties when promulgating retroactive standards, we do not think this outcome would be fair or appropriate.

If these compliance difficulties occur, moreover, we believe that the harms would not just be felt by directly affected obligated parties but also extend to the entire fuels market and the RFS program. If insufficient RINs are available to obligated parties to meet their compliance obligations, this could negatively impact the regulatory and market certainty critical to the investments needed to increase renewable fuel volumes in 2022 and into the future. Uncertainty in the RFS program specifically, and the broader fuels market more generally, could negatively impact investment in increasing renewable fuel production and accordingly the expected future rate of production of renewable fuels. It could also negatively affect investment in the infrastructure necessary to deliver and use of greater quantities of renewable fuel. As discussed in greater detail in the RIA, biofuel production and use generally have positive impacts on climate change, energy security, job creation, and rural economic benefits. Reduced production and use of renewable fuels would therefore be expected to negatively impact these statutory factors. In particular, reduced business certainty could also deter the commercialization of novel advanced biofuels, which have the potential for lower costs and superior environmental benefits.

Retroactively reducing the 2020 volumes mitigates these concerns. Specifically, reducing the 2020 required volumes to the volumes of renewable fuel actually used in 2020 preserves an estimated carryover RIN bank of 1.83 billion RINs for use in 2021, and establishing the 2021 volumes at the volumes of renewable fuel actually used in 2021 preserves the same estimated carryover RIN bank for compliance with the market-forcing 2022 standards.

We note lesser reductions to 2020 or 2021 would give rise to similar concerns. The magnitude of those concerns would depend on how high the 2020 and 2021 volume requirements are and the resulting impact on the carryover RIN bank. We think that some of these concerns, moreover, would remain even were we to make offsetting reductions to the 2022 volumes (*e.g.,* were we to increase the 2021 volumes by 500 million gallons and decrease the 2022 volumes by the same amount). In that case, even though the aggregate incentive for renewable fuels across all three years might remain the same, retroactively requiring compliance for past years would increase the risk of market disruption. This is because while we expect a significantly higher number of RINs to be generated in 2022 than in either 2020 or 2021, compliance is still conducted on a year-by-year basis. As noted above, there are limitations on the ability of obligated parties to carry forward deficits into 2022 and consequently to leverage 2022 RIN generation to meet higher 2020 or 2021 standards.

C. Volume Requirements for 2020

We proposed to revise previously finalized 2020 total renewable fuel, advanced biofuel, and cellulosic biofuel volumes to equal the volume of such fuels actually consumed in the U.S. in 2020. We also proposed to make corresponding adjustments to the percentage standards applicable to obligated parties.[101]

As discussed previously, commenters generally acknowledged that higher volume requirements for 2020 would not impact renewable fuel production and use in 2020, but expressed concerns that revising the 2020 volumes after previously establishing them would reduce confidence in the market-forcing nature of the RFS program and could negatively impact renewable fuel production and use in future years. Many of these commenters stated that the structure of the RFS program automatically adjusted to the lower than expected demand for gasoline and diesel fuel, and that further modification of the 2020 percentage standards was thus unnecessary, especially in light of the availability of carryover RINs. Other commenters supported our proposed revisions to the previously established 2020 volume requirements, noting the impact of the COVID–19 pandemic and the shortfall in renewable fuel use relative to projections in the original 2020 final rule.

In this rule we are finalizing revised 2020 volumes and percentage standards based on the actual volumes of renewable fuel, gasoline, and diesel fuel used in 2020, consistent with the proposed rule. While we recognize the concerns raised by commenters opposing these changes, we believe that the unique circumstances in 2020 justify revising the 2020 volumes, and that we

[99] The calculations performed to project the number of carryover RINs that would be available if we did not revise the 2020 standards can be found in the memorandum, ''Carryover RIN Bank Calculations for 2020–2022 Final Rule,'' available in the docket for this action. Further discussion of the size of the advanced and cellulosic carryover RIN banks is contained in the above-cited memo, Section III.B.2, and Section 2.6 of the RTC document.

[100] The regulations at 40 CFR 80.1427(b) allows obligated parties to only carry forward a deficit if they did not carry forward a deficit from the previous calendar year; thus, an obligated party that carries forward a deficit from 2020 into 2021 may not carry forward a deficit from 2021 into 2022.

[101] As discussed in Section V, the adjustments to the percentage standards would also include changes to the non-renewable gasoline and diesel volumes to reflect actual 2020 consumption.

have the authority to do so as discussed in Sections II.C and D.

We acknowledge that we are reconsidering and revising the already finalized 2020 standards [102] after the November 30, 2019, statutory deadline for the 2020 standards in CAA section 211(o)(3)(B)(i). The revised 2020 standards are also retroactive. Barring unusual circumstances, we generally do not believe it is appropriate to reconsider and revise previously finalized RFS standards, particularly where we are doing so retroactively.[103] Nonetheless, we are doing so for 2020 because, in compliance with the statutory requirement that we review the implementation of the RFS program, we have determined that critical and unanticipated events have occurred which affected fuels markets in that year and consequently affect compliance with the RFS program. Specifically, there was a significant, unprecedented, and unforeseen shortfall in renewable fuel use in 2020 relative to the volumes that we required in the original 2020 final rule. Actual use of qualifying renewable fuel in 2020 (17.13 billion RINs) was nearly 3 billion RINs lower than the 20.09 billion RINs that the 2020 final rule projected the market could achieve. That is, the actual shortfall is 14.9 percent of the total renewable fuel volume in the original 2020 rule. This is the largest shortfall on record, in both absolute and percentage terms, since Congress enacted the RFS program.[104] This shortfall was largely due to two factors: (1) the COVID–19 pandemic, which caused an unforeseen and drastic fall in transportation fuel demand generally and in biofuel demand more specifically; and (2) EPA's projection in the 2020 rule that we would grant a large number of SREs for 2020 and our consequent decision to deny all pending 2020 SRE petitions.

In general, under the RFS program, a shortfall in gasoline and diesel fuel consumption relative to the projected volumes results in a corresponding decrease in the volume of renewable fuel required. This self-adjusting nature of the program is a function of the fact that the RFS standards are applied as a percentage to an obligated party's gasoline and diesel fuel production; the obligation to acquire RINs for compliance rises and falls along with the sum of gasoline and diesel fuel production volume. Further, historical deviations before 2020 between the volumes of gasoline and diesel fuel actually used relative to their projected volumes have been relatively small, on the order of a few percent.[105] As a result, we have historically not adjusted the RFS standards after they have been established to account for updated gasoline and diesel fuel consumption levels. This is consistent with our general policy of not reconsidering and revising previously finalized RFS standards.

However, the situation in 2020 was different. As explained further in Section III.B, the shortfalls in 2020 were both significantly larger than in any previous year (about 12 percent) and disproportionately affected gasoline more than diesel fuel.[106] This is important because, on average, finished gasoline contains more renewable content than finished diesel. The vast majority of gasoline contains at least 10 percent ethanol, mostly in the form of E10, whereas the average concentration of renewables in diesel is considerably less than 10 percent.[107] Thus, while the decrease in transportation fuel demand in 2020 proportionally decreased the required renewable fuel volume, the decrease in the demand for renewable fuel was greater given the larger drop in gasoline versus diesel fuel demand. In other words, despite the self-adjusting nature of the RFS standards in response to transportation fuel demand, the disproportionate fall in gasoline demand meant actual RIN generation still fell short of what was ultimately required for compliance.

In addition, when we promulgated the 2020 volume requirements, we did so while projecting for the first time that we would be granting a large number of SREs for 2020. Specifically, the 2020 final rule projected that EPA would grant exemptions of 7.26 billion gallons of gasoline and diesel, equivalent to approximately 770 million RINs.[108] We reallocated the projected exempted volumes onto the remaining obligated parties, thereby significantly increasing the obligations on those parties. However, EPA recently announced that we were denying pending SRE petitions before the agency, including all petitions for 2020.[109] In other words, the actual exempted volume of gasoline and diesel fuel in 2020 is zero. Were we to leave the 2020 standards unchanged, this discrepancy between projected and actual exemptions would significantly raise the effective volume obligations for all obligated parties. This effect is independent from the COVID-related transportation fuel demand effects described above.

Accounting for these factors, actual renewable fuel use in 2020 (17.13 billion RINs) was approximately 1.23 billion RINs lower than the estimated obligation for 2020 were we to leave the original 2020 percentage standards unchanged, based on available data of obligated gasoline and diesel fuel production in 2020 (18.35 billion RINs). As such, compliance with the original 2020 standards would likely result in a significant drawdown of the number of carryover RINs available for use in 2021. As we discussed in Section III.B, this would present a substantial probability of market disruption, including of noncompliance by some obligated parties.

While our analyses have focused on the availability of RINs for RFS compliance in 2020, the risks we describe must be considered in the broader context of the fuels market. As we explain in Chapter 1 of the RIA, in our review of the implementation of the RFS program, we find that the RFS program, the biofuels market, and the broader transportation fuels market are highly intertwined. This broader consideration of the larger fuels market further supports our concerns regarding maintaining the original 2020 standards. For one, 2020 follows a year (2019) in which the market already relied heavily on carryover RINs to meet the RFS obligations. As noted above, we anticipate the market to draw down the carryover RIN bank from 3.48 billion to 1.83 billion RINs to meet compliance obligations for 2019. While the 3.48 billion carryover RIN bank going into 2019 reflected a historical high, it was the result of roughly three years of accumulation.[110] That accumulation occurred during a period when EPA had incrementally raised the total renewable fuel volume each year and maintained the conventional volume at the full implied statutory volume of 15 billion gallons. At the same time, EPA had

[102] 85 FR 7016 (February 6, 2020).

[103] We have in the past modified previously finalized RFS standards, including in response to court decisions (see 80 FR 77420 (December 14, 2015), modifying the cellulosic biofuel standards), and in response to new information and petitions for reconsideration (see 79 FR 25025 (May 2, 2014)), also modifying the cellulosic biofuel standard).

[104] See Figure 1.2–4 in the RIA.

[105] See Figure 1.2–1 in the RIA.

[106] See Figure 1.2–1 in the RIA.

[107] According to EIA's January 2022 STEO diesel consumption in the U.S. in 2020 was 3.51 million barrels per day (54.0 billion gallons). Biodiesel and renewable diesel in 2020 totaled 2.50 billion gallons, which generated 3.87 billion RINs. Thus, the average gallon of diesel in the U.S. was blended with renewable fuel that generated 0.07 RINs (3.87 billion RINs/54.0 billion gallons), while the average gallon of gasoline was blended with renewable fuel that generated 0.10 RINs.

[108] 85 FR 7053, February 6, 2020.

[109] See ''June 2022 Denial of Petitions for RFS Small Refinery Exemptions,'' EPA–420–R–22–011, June 2022.

[110] See ''Carryover RIN Bank Calculations for 2020–2022 Final Rule,'' available in the docket for this action.

granted large numbers of SREs that were not accounted for in setting the standards and significantly reduced the effective RFS requirements below the volumes we established in our annual rules. More recently, we have denied pending SRE petitions, including all petitions for 2019 and 2020, and we are not aware of any circumstances that would warrant EPA granting SREs in the future that would increase the size of the carryover RIN bank akin to what occurred leading up to 2019.[111]

Were we to leave the 2020 standards unchanged, as noted above, we would expect a further drawdown of the carryover RIN bank to the lowest historical levels since we began tracking the carryover RIN bank in 2013. The associated shortfall in renewable fuel production and use in 2020 comes on the heels of an already large shortfall in renewable fuel production and use in 2019. As noted above, the dramatic reduction in the carryover RIN bank in 2019 eliminated much of the flexibility the carryover RIN bank might have otherwise provided for 2020. Moreover, a significant reduction to the number of carryover RINs for two consecutive years would only increase the general concerns associated with relying on carryover RINs to meet the RFS obligations, especially for parties that generally do not own significant quantities of carryover RINs.

Additional factors regarding the larger transportation fuels market also support our decision to revise the 2020 standards. The drop in demand for transportation fuel due to the COVID–19 pandemic had a significant impact on refiners. Refining margins (often referred to as the ''crack spread'') dropped sharply in 2020, resulting in broad losses across the refining industry in 2020.[112] [113] In response to this economic environment many refiners sought to minimize expenses to preserve available capital, taking actions such as delaying or cancelling capital expenditures.[114] At the same time, biofuel producers were also impacted by a dramatic reduction in transportation fuel demand and challenges across the supply chain for agricultural commodities, including biofuel feedstocks.[115] This combination of factors made the acquisition of the renewable fuel volumes necessary to meet the RFS obligations in 2020 uniquely challenging, both economically and practically.

Given the above reasons, we have decided to reconsider and revise the 2020 volumes to those actually used. In doing so, we recognize that since 2020 has already passed, this rulemaking has no ability to affect actual production, imports, and use of renewable fuel in 2020. As such, the impact of the rule on those statutory factors related to renewable fuel production and use during 2020 is similarly limited. Rather, this final rule seeks to ensure sufficient RINs are available for compliance. It acts to relieve burdens on obligated parties, and in some cases the potentially onerous burden of non-compliance with the RFS program, the possibility of civil penalties, and associated market disruptions. This approach also seeks to mitigate related negative impacts on the regulatory and market certainty critical to the investments needed to increase renewable fuel volumes in 2022 and into the future. As discussed in Section III.B.3, this market certainty has an impact on many of the statutory factors, including the expected future rate of production of renewable fuels, the development of infrastructure to distribute and use increased volumes of such fuels, climate change, energy security, job creation, and rural economic benefits.

As our reconsideration of the 2020 standards is retroactive, we have considered and mitigated burdens on obligated parties as required by the D.C. Circuit's caselaw on retroactive RFS standards. To begin with, as noted above, we have ensured sufficient RINs for compliance, and this factor has been key in our decision to reconsider and revise the standards to actual supply. We have also considered several other factors:

- Adequate lead time for obligated parties to comply with the revised standards.
- The availability of compliance flexibilities.
- The impact of the revised standards on those parties that may have relied on the original standards in making business decisions.
- Alternatives to revising the 2020 volume requirements to be equal to the volumes actually consumed.

Each of these factors is discussed below.

Regarding lead time for obligated parties, we note that relatively less lead time is needed given that we are reducing the stringency of their obligations, as opposed to increasing their stringency. Nonetheless, we are providing significant lead time. Earlier this year we extended the 2020 compliance deadline for obligated parties to the next quarterly reporting deadline after the 2019 compliance reporting deadline for small refineries, which in turn was extended in that same action to the next quarterly reporting deadline that is after the effective date of this rule.[116] In other words, obligated parties will have no less than 5 months after the publication of this final rule in the **Federal Register**, and no less than 11 months after the publication of the 2020–2022 proposal,[117] to comply with their 2020 obligations. Had we not adjusted the 2020 compliance deadline, obligated parties would have needed to demonstrate compliance by March 31, 2021.

Regarding the availability of compliance flexibilities, obligated parties continue to have access to carryover RINs and carryforward deficits to facilitate compliance. As discussed above, the revision of the 2020 volumes to those actually supplied preserves the carryover RIN bank and the availability of this flexibility.

Regarding potential reliance interests, we recognize that retroactively adjusting the 2020 standards may disrupt market expectations created by the prior final rule, for instance on the part of biofuel producers that made investments or other parties who transacted biofuels or RINs, based on the higher standards originally finalized. As a general matter, these expectations may not rise to the level of reliance interests recognized by the courts.[118] As discussed in Section II, EPA generally has authority to reconsider and revise prior rulemakings. Congress also specifically granted EPA multiple waiver authorities. Moreover, as shown in Section 1.9 of the RIA, RIN prices have fluctuated significantly over time. Thus, market actors may not possess legally cognizable reliance interests in specific RFS volumes or

[111] See ''June 2022 Denial of Petitions for RFS Small Refinery Exemptions,'' EPA–420–R–22–011, June 2022.

[112] Q4 2020: U.S. Refining Margins Remain Depressed; Refining Industry in Focus. Baker & O'Brien Inc.; March 12, 2021.

[113] Somasekhar, Arathy. ''U.S. oil refiners set for first profit since onset of pandemic.'' Reuters. July 28, 2021.

[114] Agarwal, Bharti. ''Effect of COVID–19 pandemic on refining and refiners.'' IHS Markit. August 2020.

[115] Aday, Serpil and Aday, Mehmet Seckin. ''Impact of COVID–19 on the food supply chain.'' Food Quality and Safety. Volume 4, Issue 4. December 2020.

[116] 87 FR 5696 (February 2, 2022).

[117] 86 FR 72436 (December 21, 2021).

[118] See *Monroe Energy, LLC* v. *EPA,* 750 F.3d 909, 919–20 (D.C. Cir. 2014) (holding that the litigant ''had no legally settled expectation'' regarding how EPA exercised its waiver authority to adjust the renewable volume obligations). See also *AFPM,* 937 F.3d 577–78 (finding it far from obvious that biofuel producers had serious reliance interests in the annual volumes).

standards or specific RIN prices. Even hypothetically assuming that some market expectations amounting to legally cognizable reliance interests exist, those expectations and interests were already confounded by the significant and unanticipated events described above, including the COVID–19 pandemic's impact on the fuels markets.

Furthermore, obligated parties who obtained additional RINs in response to the original, higher 2020 standards are not penalized in any way. To the contrary, these parties will continue to have sufficient RINs to comply with the revised, lower standards and may sell excess RINs or carry them over for 2021 compliance consistent with EPA's regulations. Similarly, biofuel producers who made investments in response to the original 2020 standards and generated additional RINs are also able to sell these RINs in the market and may continue to obtain returns on their investments as the market demands additional RINs needed to meet the 2022 standards. Although this action may reduce the market value of 2020 RINs, maintaining the current 2020 standards would force other obligated parties into noncompliance. We do not believe any potential reliance interests of RIN-holders would justify imposing the burden of non-compliance on obligated parties who had no reason to anticipate the unprecedented events of 2020. Additionally, we have extended the 2020 compliance deadline so that all parties are still able to trade and acquire RINs for compliance with the 2020 standards.[119] In all cases, we believe that revising the standards is warranted based on the events and factors described above and that we have set forth a sufficiently detailed justification for doing so.

Finally, we also considered alternatives to our final action, including revising the 2020 volumes to volumes lesser or greater than the volume of renewable fuel that was supplied, as well as leaving the original volumes from the 2020 final rule in place. We do not believe it is appropriate to retroactively modify the volumes to be lower than what the market actually used. We acknowledge that reducing the 2020 volumes further would allow the market to build up the carryover RIN bank so as to provide even greater market liquidity. This would benefit obligated parties, particularly those that carried forward deficits into 2020 or have very few or no carryover RINs. However, we do not believe this would be appropriate since the general purpose of the RFS program is to incentivize increasing production and use of renewable fuels over time. Doing so, moreover, would be unprecedented. While EPA has previously set the RFS standards at what the market actually used (like for 2014 and 2015 in the 2014–2016 rule), we have never intentionally reduced the standards with the express intent to inflate the size of the carryover RIN bank. We further discuss this issue in the RTC document.

At the same time, we do not believe that requiring higher volumes than what was actually used is appropriate. As explained above, doing so would result in some combination of potentially disruptive outcomes: (1) a reduction in the size of the carryover RIN bank; (2) obligated parties carrying deficits into 2021; and/or (3) obligated parties being out of compliance with their RFS obligations. Given the intertwined nature of compliance from year to year, we acknowledge that requiring higher volumes in 2020 may increase demand for renewable fuels in 2022. However, this rule achieves the same result simply by requiring higher volumes in 2022. Given that this rule cannot affect past years such as 2020 but can affect the future, we believe it is more appropriate to drive increasing renewable fuel demand prospectively, in 2022. Doing so also mitigates the compliance concerns, including the potential for non-compliance, described above. We discussed this issue further in Section III.B.

The above reasons also support our decision to act after the statutory deadlines for waiving the volumes and establishing the 2020 standards. We have also further and specifically assessed whether it is appropriate to exercise the reset authority after the passage of the statutory deadline and have concluded that it is. We received comments from certain stakeholders suggesting either that EPA lacked the authority to utilize the reset authority after the deadline had passed, or that our discretion is limited when utilizing the reset authority after the deadline. Commenters suggested that the reset authority only provides for a prospective waiver and cannot be used to modify volumes that have already been established. As explained in Section II.A.2, the statutory deadline for resetting the total renewable fuel volume was in December 2019 (*i.e.,* one year after the promulgation of the 2019 standards final rule).[120] The statutory deadlines for resetting the advanced biofuel and cellulosic biofuel volumes occurred even earlier. Despite being late to meet our statutory obligations, we are exercising the reset authority for several reasons.

First, doing so satisfies our statutory obligation to reset the statutory volumes. Second, we have already notified the public that we intended to exercise the reset authority.[121] This rule makes good on that intent and meets our statutory obligation. Third, the reset authority also provides EPA broad discretion to modify the renewable fuel volumes and to establish biofuel volume requirements at the volumes actually consumed in 2020. Such 2020 volumes for advanced biofuel and total renewable fuel could not be established under the cellulosic waiver authority, which was the legal basis for the original 2020 final rule.[122] Nonetheless, we believe that these are the appropriate volumes for the reasons explained above. Fourth, we acknowledge that the text of the statutory reset provision does contemplate a prospective waiver of the applicable volumes. This is not, however, different from other statutory authorities in the RFS program, which also contemplate prospective actions.[123] This includes the authority to establish volumes for 2023 and beyond under CAA section 211(o)(2)(B)(ii), which requires EPA to establish volume requirements 14 months in advance of when they apply based on the same

[119] 87 FR 5696 (February 2, 2022).

[120] We received comments suggesting that the lead time requirement in CAA section 211(o)(2)(B) also applied, such that EPA was required to promulgate modified standards by October 31, 2019 (*i.e.,* 14 months prior to the year in which the standards would take effect). Since the reset provision in CAA section 211(o)(7) provides the timing requirement specific for the reset rule (one year after the last triggering action), we believe that specific provision controls over the more general 14-month provision in CAA section 211(o)(2)(B), which applies to establishing standards under that provision more generally (including for BBD after 2012 and for all other fuel categories after 2022). In any event, whether we utilize the October 31, 2019 deadline, or the December 2019 deadline, our exercise of the reset authority is late.

[121] See 84 FR 36766 (July 29, 2019), 86 FR 72436 (December 21, 2021).

[122] The cellulosic waiver authority limits reductions in the statutory total renewable fuel and advanced biofuel volumes to no more than the reduction in the cellulosic biofuel volume. In the 2020 final rule, we exercised the cellulosic waiver to the maximum extent, resulting in an implied conventional renewable fuel volume of 15 billion gallons and an implied non-cellulosic advanced biofuel volume of 4.5 billion gallons. However, the volumes of advanced biofuel and total renewable fuel actually supplied in 2020 fell short of these numbers.

[123] See, *e.g.,* CAA section 211(o)(3)(B)(i) (requiring EPA to establish standards by November 30 of the preceding year), section (o)(7)(D)(i) (requiring EPA to determine whether or not to exercise the cellulosic waiver authority by November 30 of the preceding year), and section (o)(2)(B)(ii) (requiring EPA to establish volumes 14 months before they apply).

statutory factors as the reset authority. The D.C. Circuit has reviewed EPA's belated exercise of authority under that and other RFS provisions and has held that EPA does not lose authority to act merely as a result of a missed deadline [124] and upheld our prior rulemakings as reasonable. Finally, EPA generally has the authority to reconsider past actions establishing the RFS standards and in doing so can utilize explicit waiver authorities provided in the statute to modify volumes that we declined to use at the time of the initial promulgation of the rule to reduce volumes beyond initial reductions. Nothing in the statute indicates that the various waiver authorities (such as the reset and cellulosic waiver authorities) cannot be used together, nor does anything indicate that EPA's authorities are limited upon reconsideration of a rule. Further discussion of this topic is provided in Section 2 of the RTC document.

The revised 2020 volumes, along with the original volumes, are shown in Table III.C–1. The revised 2020 percentage standards are provided in Section V.D.

TABLE III.C–1—REVISED VOLUME REQUIREMENTS FOR 2020

[Billion RINs]

Standard	Original volume	Revised volume
Cellulosic Biofuel	0.59	0.51
Biomas-Based Diesel	[a] 2.43	[a] 2.43
Advanced Biofuel	5.09	4.63
Total Renewable Fuel	20.09	17.13

Source: EMTS (EPA Moderated Transaction System). See "RIN supply as of 2–17–22"

[a] The BBD volume for 2020 is in physical gallons (rather than RINs) and was established in the 2019 final rule (83 FR 63704, December 11, 2018). We are not revising the 2020 BBD volume in this action.

D. Volume Requirements for 2021

We proposed to establish the cellulosic biofuel, advanced biofuel, and total renewable fuel volumes for 2021 at the volumes of these fuels projected to be supplied to the U.S. in 2021. Commenters generally supported this proposed approach. Many commenters submitted updated data on renewable fuel use in 2021, or referenced publicly available data on renewable fuel use and asked that the 2021 volumes reflect this updated data. Some commenters suggested that the 2021 volumes should be set at the implied statutory levels despite the retroactive nature of the 2021 volumes and the anticipated shortfall in renewable fuel use relative to the implied statutory volumes. In this final rule we are establishing cellulosic biofuel, advanced biofuel, and total renewable fuel volumes for 2021 at the volumes of these fuels supplied to the U.S. in 2021, as proposed. However, instead of basing the 2021 volumes on a projection of the supply in 2021 as in the proposed rule, we now have and are updating the volumes based on data on the actual supply of these fuels in 2021. While this results in some changes relative to the proposed volumes for 2021, these changes are relatively small, and are consistent with our stated intent in the proposed rule to finalize volumes for 2021 consistent with the most current data available.

Given that we are establishing 2021 volumes on the same basis as the 2020 volumes (*i.e.,* at the volumes of biofuels actually used), the rationale for our 2021 volumes is similar to the rationale for our 2020 volumes. Below we present some of the key similarities and also note differences where they exist. As with 2020, because this rule is being finalized after the end of 2021, there is no longer any ability for the rule to affect renewable fuel production, imports, and consumption in the U.S. in 2021. As such, the impact of the rule on each of the statutory factors with regard to renewable fuel use and production during 2021 is similarly limited. Also, as with 2020, we could have set volumes for 2021 that were greater or lesser than the volume of renewable fuel that was actually consumed in 2021, but we do not believe that doing so would be appropriate for similar reasons. We do, however, believe that the RFS program should drive increases in renewable fuel volumes over time. Given that we are setting volumes for 2020–2022 in this rule and the fact that retrospective volumes have limited ability to affect biofuel use, we believe that increases in volume requirements are more appropriate in 2022. That is when this rule applies prospectively for part of the year and has the potential to affect actual biofuel consumption. We discuss this relationship between the three years further in Section III.B.3.

As with 2020 standards, the 2021 standards are both late (relative to the statutory deadline of November 30, 2020) and retroactive. Unlike for 2020, however, we are not modifying previously finalized standards for 2021. The lateness and retroactivity of the 2021 standards are appropriate for similar reasons as for 2020. We believe that establishing the 2021 volumes at the volumes actually used properly balances the statutory goal of increasing renewable fuel use with mitigating burdens on obligated parties. It ensures that the obligated parties should have sufficient RINs to comply. In a separate action, we have extended the compliance reporting deadline for 2021, providing additional lead time. Obligated parties will have at least 9 months after the publication of this action in the **Federal Register** before having to demonstrate compliance with their 2021 obligations.[125] We also maintain the existing compliance flexibilities for obligated parties including access to carryover RINs and carryforward deficits. As discussed above, the revision of the 2020 volumes to those actually supplied preserves the carryover RIN bank that helps facilitate compliance, including for 2021. In addition, we note that this approach, of setting volumes at those actually used, is consistent with our approach in the 2014 and 2015 standards rulemakings, which the D.C. Circuit upheld in *ACE.*

As with the 2020 volumes, the 2021 volumes also depend upon an exercise of the reset authority. We believe using the reset authority is appropriate for similar reasons as for 2020, including that we are statutorily obligated to reset 2021 volumes, we have previously informed the public that we intended to reset the volumes, and the reset authority gives us discretion to reduce the total renewable fuel volume beyond what we could establish under the

[124] See *ACE* at 718–9, *NPRA* at 154–158, *Monroe* at 920.

[125] See 40 CFR 80.1451(f)(1)(i)(B)(*3*); 87 FR 5696 (February 2, 2022).

cellulosic waiver. As with resetting the 2020 standards, we do not believe that the passage of time or the retroactive nature of this rule deprive us of our ability to exercise the reset authority. Additionally, the statute indicates that when we reset the volumes, we must do so for all remaining years in the statutory volume tables, which extend through 2022. Thus, in resetting the 2020 volumes, we are obligated to reset the 2021 and 2022 volumes.[126]

The volumes of cellulosic biofuel, advanced biofuel, and total renewable fuel that we are establishing for 2021 are shown in Table III.D–1. The BBD volume for 2021 was previously established in the 2020 final rule and is included in Table III.D–1 for context. These volumes are based on the actual consumption of renewable fuels in the U.S., as discussed in greater detail in Chapter 5 of the RIA.

TABLE III.D–1—RFS VOLUMES FOR 2021

[Billion RINs]

Category	Volume
Cellulosic Biofuel	0.56
Biomass-Based Diesel	[a] 2.43
Advanced Biofuel	5.05
Total Renewable Fuel	18.84

[a] The BBD volume for 2021 is in physical gallons (rather than RINs) and was established in the 2020 final rule (85 FR 7016, February 6, 2020). We are not revising the 2021 BBD volume in this action.

E. Volume Requirements for 2022

For 2022 we proposed a cellulosic biofuel volume that was equal to the volume of qualifying cellulosic biofuel projected to be used in the U.S. in 2022 and volumes of non-cellulosic advanced biofuel and conventional renewable fuel that were consistent with the implied statutory targets for these categories.[127] The proposed volumes for 2022 were significantly higher than the proposed volumes for 2020 and 2021.

We received numerous comments on the proposed volumes for 2022. Many commenters supported the proposed volumes and the incentives those volumes provide for increased renewable fuel production and use in the U.S. Some of these commenters suggested that even higher volumes may be appropriate, particularly higher volumes of advanced biofuel. We also received many comments arguing that the proposed volumes were too high. These comments generally raised concerns that the implied volume for conventional renewable fuel (15 billion gallons) was far above the E10 blendwall. To address these concerns these parties requested that we reduce the total renewable fuel volume by 1.2–1.5 billion gallons so that the implied conventional volume reflected the estimates of the E10 blendwall in the proposed rule. As an alternative means of reducing the implied volume of conventional renewable fuel below the blendwall, some commenters suggested that we retain the proposed volume for total renewable fuel, but increase the advanced biofuel volume requirement by 1.2–1.5 billion gallons. Finally, some commenters requested that we reduce the advanced biofuel volume. These commenters generally raised concerns about the availability and/or cost of advanced biofuel feedstocks, and the environmental impacts associated with increased use of these feedstocks to produce higher volumes of advanced biofuels.

After considering these comments and updated data on biofuel production and use, we are establishing 2022 total renewable fuel, advanced biofuel, and cellulosic biofuel volumes using the same general approach as in the proposed rule. We are establishing the cellulosic biofuel volume at the volume of qualifying cellulosic biofuel projected to be used in the U.S. in 2022. We are establishing the advanced biofuel and total renewable fuel volumes consistent with the cellulosic biofuel volume and the implied statutory targets for non-cellulosic advanced biofuel and conventional renewable fuel (5 billion gallons and 15 billion gallons, respectively). These volumes represent significant growth compared to historical volumes and compared to the volumes of these fuels used in 2020 and 2021. The cellulosic biofuel volume we are finalizing for 2022 represents a 70 million gallon increase over the volume of cellulosic biofuel used in 2021. This increase is based on the expected continued growth in biogas use. We also anticipate significant growth in the use of non-cellulosic advanced biofuels, especially in advanced renewable diesel.[128] While we expect that conventional ethanol use will fall short of the implied 15 billion gallon volume in 2022 by roughly 800 million gallons, we project that greater volumes of biodiesel and renewable diesel will be produced and imported to offset this shortfall. We discuss the 2022 BBD volume separately in Section III.F. The remainder of this section discusses our rationale for finalizing these volumes. Additional discussion, including more detailed responses to the comments mentioned above, can be found in the RIA and the RTC document.

The cellulosic biofuel volume for 2022 is equal to the projected available volume of cellulosic biofuel.[129] This volume represents the highest volume of cellulosic biofuel we can establish for 2022 given the cellulosic waiver provision, which requires EPA to reduce the statutory cellulosic biofuel volume to the projected volume available.[130] While EPA does have the authority to establish a lower cellulosic biofuel volume under the reset authority, we do not believe this would be appropriate for 2022, as discussed below.

EPA's approach to the cellulosic biofuel volume for 2022 seeks to realize the potential for GHG benefits associated with increased cellulosic biofuel production despite the relatively high costs of liquid cellulosic biofuels, and in the case of CNG/LNG derived from biogas, the impact on the price of transportation fuel. Because cellulosic biofuels through 2022 are projected to be produced from wastes or residues, their production is not expected to have significant adverse impacts on several of the statutory factors such as the price and supply of agricultural commodities, water quality and supply, and the conversion of wetlands, ecosystems, and wildlife habitat. Thus, while some of the statutory factors (such as the cost to consumers of transportation fuel and the cost to transport goods) may suggest that a volume of cellulosic biofuel lower than the volume projected to be produced in 2022 would be appropriate, we have determined that these factors are outweighed by other factors (such as climate change).

The advanced biofuel and total renewable fuel volumes strike a balance between numerous competing statutory factors. They reflect the potential for growth in the volume of renewable fuel produced and consumed in the U.S., and the potential energy security and climate change benefits that producing and consuming increasing volumes of qualifying renewable fuels provide.

[126] See CAA section 211(o)(7)(F) ("the Administrator shall promulgate a rule . . . that modifies the applicable volumes set forth in the table concerned for all years following the final year to which the waiver applies").

[127] The implied statutory volume for non-cellulosic advanced biofuel in 2022 (5 billion gallons) is the difference between the statutory volumes for advanced biofuel (21 billion gallons) and cellulosic biofuel (16 billion gallons) in 2022. Similarly, the implied statutory volume for conventional renewable fuel in 2022 (15 billion gallons) is the difference between the statutory volumes for total renewable fuel (36 billion gallons) and advanced biofuel (21 billion gallons) in 2022.

[128] See Chapters 2 and 5 of the RIA.

[129] See Chapter 5.1 of the RIA.

[130] The projected volume available must represent a "neutral aim at accuracy" *API* v. *EPA,* 706 F.3d 476 (D.C. Cir. 2013).

They also take into consideration the potential negative impacts of renewable fuels produced from crops such as corn or soybeans on environmental factors such as the conversion of wetlands, ecosystems, and wildlife habitat, water quality, and water supply.

We acknowledge that the implied conventional renewable fuel volume is higher than the volume of these fuels projected to be consumed in the U.S. in 2022. This may help incentivize the continued expansion of the infrastructure necessary to expand the use higher-level blends of ethanol, which remains the dominant form of conventional renewable fuel. In recent years, ethanol consumption beyond the E10 blendwall in the U.S. has been limited by infrastructure constraints—as well as other factors—to a volume significantly lower than the volume of ethanol produced in the U.S. and the total production capacity of the U.S. ethanol industry. If these infrastructure constraints can be overcome, domestic ethanol consumption and ultimately domestic ethanol production could increase, and this could result in job creation, rural economic development, higher corn prices, and a greater supply of agricultural commodities. Despite the incentive for higher-level ethanol blends, it is our expectation that ethanol use will fall short of 15 billion gallons. We project that additional volumes of conventional biodiesel and renewable diesel could be supplied in 2022 to fulfill a portion of that shortfall, including renewable fuels that are grandfathered under 40 CFR 80.1403 and are thus not required to meet the minimum 20 percent GHG reduction required for all qualifying renewable fuel. These fuels would most likely be produced in foreign facilities and from foreign grown feedstocks. This may cause additional adverse environmental impacts and would not provide the same benefits to domestic job creation and rural economic development but could still provide energy security benefits.

In addition, based on past experience, the shortfall in conventional renewable fuel volumes needed to meet 15 billion gallons means that obligated parties will likely need to look to other sources of renewable fuel beyond conventional renewable fuels to meet their compliance obligations for 2022. While we are establishing the non-cellulosic portion of the advanced biofuel standard at the full implied statutory volume of 5 billion gallons, our assessment of potential supply indicates that additional volume, particularly of advanced renewable diesel, will likely be used in 2022. This means that if, as expected, the market falls short of the implied volume of conventional renewable fuel in 2022, as has happened in several years in the past, excess volumes of advanced biofuel beyond what is needed to meet the advanced biofuel volume will likely be used to fulfill some portion of the shortfall.

Finally, while we are projecting that sufficient biodiesel and renewable diesel, both advanced and conventional, will be available to help meet the 2022 volume requirements, the market may fall short. In that case, the carryover RIN bank can still enable compliance and help avoid or mitigate potential market disruptions. As noted above, our decisions to establish the 2020 and 2021 volumes at those actually supplied preserve the carryover RIN bank. Obligated parties may use these carryover RINs to help them comply with the 2022 standards. See Section III.B for a more detailed discussion of carryover RINs.

We acknowledge that in lieu of relying on higher volumes of advanced biofuel to fulfill an expected shortfall in conventional biofuel, we could instead establish a higher advanced biofuel volume and corresponding lower conventional biofuel volume, while keeping the total renewable fuel volume the same. While this alternative would require larger volumes of potentially lower GHG fuels (*i.e.,* advanced biofuels), we expect the actual impact on GHG emissions to be minimal given that much of the shortfall in conventional biofuel is expected to be made up with additional volumes of advanced biofuels regardless. Moreover, since the vast majority of ethanol is made from corn starch and therefore cannot qualify as advanced biofuel regardless of its GHG reductions,[131] this alternative would reduce incentives for increased use of higher-level ethanol blends and may negatively affect investment in infrastructure for the distribution of such blends. By contrast, maintaining the statutory implied volume of conventional renewable fuel preserves greater incentives for investment in the infrastructure for higher-level ethanol blends and therefore has the potential to induce greater renewable fuel consumption in future years. Moreover, the advanced carryover RIN bank going into 2022 is expected to be very low, further favoring a lower advanced biofuel standard.[132]

We note that this approach of maintaining the statutory implied conventional and non-cellulosic advanced biofuel volumes is inherently consistent with the volumes Congress itself established in EISA. It is also consistent with EPA's policy in prior years, during which we have never established prospective volume requirements lower than the implied statutory volume targets, with a single exception.[133] While we have discretion to establish different volumes, we continue to believe that maintaining the implied statutory volumes strikes the proper balance based upon our consideration of the reset factors.

As with 2020 and 2021, the 2022 standards are being promulgated late; that is, after the statutory deadline of November 30, 2021. Since this rule is being finalized during 2022, the 2022 standards will be partially retroactive and partially prospective. Despite the lateness and partial retroactivity of this rule, we nonetheless believe it is appropriate to establish increased volumes for 2022. First, the 2022 volumes appropriately balance the statutory goal of increasing renewable fuel use with mitigating burdens on obligated parties. Since the 2022 standards are partially prospective, we expect it will induce the market to produce, import, and consume additional biofuels in 2022. This is in contrast to the 2020 and 2021 standards, which as noted above, are entirely retroactive. Moreover, we find that the market is capable of meeting the increased 2022 volumes through increased biofuel use, and any shortfall can be met by carryover RINs. Overall, we think the 2020–2022 volumes in the aggregate strike the proper policy balance overall between the statutory purpose of increasing biofuel use with mitigating burdens on obligated parties. We further discuss the intertwined nature of these standards in Section III.B.3.

Second, we are providing significant lead time for 2022. Obligated parties will have at least 11 months after the publication of this action in the **Federal Register** before having to demonstrate compliance with their 2022 obligations.[134] Moreover, the proposed rule provided parties with additional

[131] CAA section 211(o)(1)(B)(i).

[132] See ''Carryover RIN Bank Calculations for 2020–2022 Final Rule,'' available in the docket for this action.

[133] We prospectively established a volume for conventional renewable fuel for 2016 (14.5 billion gallons) that was lower than the statutory implied volume (15 billion gallons). In doing so, we exercised our ''inadequate domestic supply'' waiver authority based largely on the limited demand for ethanol in the United States. That decision that was subsequently set aside by the D.C. Circuit in *ACE,* as exceeding our waiver authority. We further discuss the *ACE* decision and our response to the Court's remand in Section IV.

[134] See 40 CFR 80.1451(f)(1)(i)(B)(*4*); 87 FR 5696 (February 2, 2022).

advance notice. We proposed the 2022 volumes in late 2021 and are finalizing very similar volumes in this action. Specifically, we are finalizing the same implied conventional and non-cellulosic advanced biofuel volumes and a slightly lower cellulosic biofuel volume based on the same methodology with updated data.

We also continue to provide compliance flexibilities such as access to carryover RINs and carryforward deficits. As discussed above, the revision of the 2020 volumes to those actually supplied preserves the carryover RIN bank and helps facilitate compliance, including for 2022.

Finally, we have considered and rejected multiple alternatives to the 2022 volumes we are finalizing. As discussed above, these include requiring lower 2022 volumes while not revising the 2020 standards, requiring lower 2022 volumes but higher 2020 and 2021 volumes, and requiring higher 2022 advanced biofuel volumes but lower 2022 implied conventional volumes. We address additional alternatives raised by commenters for volumes for all three years in the RTC document.

We also acknowledge that we are late in resetting the 2022 volumes. We nonetheless believe that this late exercise of the reset authority is appropriate for similar reasons as for 2020 and for 2021, including that we are obligated to reset the 2022 volumes, we have previously told the public that we intended to do so, and the statute requires us to reset 2022 if we reset 2020 and 2021. Moreover, all the 2022 volumes we are resetting are also independently justified under our cellulosic waiver authority. The exercise of that authority is also late, but it is justified for substantively the same reasons as the retroactive establishment of the 2022 standards described above.

The volumes of cellulosic biofuel, BBD, advanced biofuel, and total renewable fuel we are finalizing for 2022 are shown in Table III.E–1. The BBD volume for 2022 is also included in Table III.E–1 for context, although we discuss it in Section III.F.

TABLE III.E–1—RFS VOLUMES FOR 2022

[Billion RINs]

Category	Volume
Cellulosic Biofuel	0.63
Biomass-Based Diesel	[a] 2.76
Advanced Biofuel	5.63
Total Renewable Fuel	20.63

[a] The BBD volume for 2022 is in physical gallons (rather than RINs).

F. BBD Volume for 2022

As described above, we are finalizing an advanced biofuel volume consistent with the statutory implied non-cellulosic advanced biofuel volume of 5 billion gallons. This represents an increase of 500 million gallons from the statutory implied non-cellulosic advanced biofuel volume of 4.5 billion gallons in prior years. Consistent with this and with the proposed rule, we are also increasing the BBD volume requirement by the same energy-equivalent amount (330 million physical gallons) to 2.76 billion gallons.

As in recent years, we believe that excess volumes of BBD (above 2.76 billion gallons) will be used in 2022 to satisfy the advanced biofuel standard. Historically, the BBD standard has not independently driven the use of BBD in the market. This is due to the nested nature of the standards and the competitiveness of BBD relative to other advanced biofuels. Instead, the advanced biofuel standard, and occasionally the total renewable fuel standard, have driven the use of BBD in the market. We believe this trend will continue in 2022, and that the 2022 advanced biofuel and total renewable standards will drive the use of BBD in the market in 2022.

At the same time, we think it is important to maintain space for other advanced biofuels to participate in the RFS program. Although the BBD industry has matured over the past decade, the production of other advanced biofuels continues to be relatively low and uncertain. Maintaining this space for other advanced biofuels can facilitate in the long-term increased commercialization and use of other advanced biofuels, which may have superior environmental benefits and lower costs relative to BBD. Conversely, we do not think that increasing the size of this space is necessary for 2022 given that only small quantities of these other advanced biofuels have been used in recent years relative to the space we have already provided.

The BBD volume for 2022 is consistent with our policy in recent annual rules, where we set the BBD volume consistent with the change, if any, in the non-cellulosic advanced biofuel volume. In the 2019 final rule, we set the 2020 BBD volume at 2.43 billion gallons. This was an increase from the prior year's BBD volume by the same energy-equivalent amount (330 million physical gallons) as the increase in the 2019 non-cellulosic advanced biofuel volume, which had increased by 500 million ethanol-equivalent gallons from 4 to 4.5 billion gallons. By contrast, in the 2020 final rule, when the 2020 non-cellulosic advanced biofuel volume remained constant at 4.5 billion gallons, we also maintained the 2021 BBD volume at 2.43 billion gallons. In both rules, we preserved a significant space for other advanced biofuels to compete, approximately equal to 850 million RINs (approximately equal to 566 million physical gallons). In reality, only 334 million RINs of other advanced biofuel was available in 2020 and 227 million RINs in 2021, suggesting that we do not need to further increase the space for other advanced biofuels. In this rule, we are continuing to maintain space for other advanced biofuels. Since the non-cellulosic advanced biofuel volume is increasing by 500 million gallons to 5 billion gallons in 2022, we are increasing the BBD volume by the same energy-equivalent amount, or 330 million physical gallons.[135]

We acknowledge that in finalizing the 2022 BBD volume in this action, we are establishing a late BBD volume. CAA section 211(o)(2)(B)(ii) provides that EPA shall determine the applicable volume 14 months prior to the year for which the standard will apply. That deadline (October 31, 2020) has already passed. The D.C. Circuit in *ACE* has affirmed EPA's ability to promulgate late BBD standards as long as those standards are reasonable.[136] In evaluating the reasonableness of EPA's standards, the court stated that EPA must ''consider[] various ways to minimize the hardship caused to obligated parties.'' [137] As in this case of previous annual rules, we believe that

[135] We acknowledge that this increase in the 2022 BBD volume is slightly different than our actions in the 2019 and 2020 final rules. In those rules, we were setting the BBD volumes for the subsequent year. For instance, in the 2019 rule, we increased the 2020 BBD volume based on increases in the 2019 non-cellulosic advanced volume. In this rule, we are setting the 2022 BBD and advanced volumes at the same time. In addition, because we established the 2021 cellulosic biofuel and advanced biofuel volumes retroactively at the levels actually consumed, the increase in non-cellulosic advanced biofuel from 2021 to 2022 is actually about 490 million gallons, or slightly less than the change in the implied statutory non-cellulosic advanced biofuel volume of 500 million gallons. Regardless of these differences, EPA's goal is to maintain approximately the same space for other advanced biofuels as in recent prospective annual rules. We accomplish this by raising the BBD volume by 330 million physical gallons (equivalent to 500 million ethanol-equivalent gallons). We note that even were we to raise the BBD volume by only 490 million ethanol-equivalent gallons, we expect no impact on the market given that the advanced biofuel and total renewable fuel standards are driving BBD use in 2022.

[136] *ACE* at 721.

[137] *Id.* (quoting *Monroe Energy, LLC* v. *EPA,* 750 F.3d 909, 920 (D.C. Cir. 2014)).

the advanced biofuel and total renewable fuel standards for 2022 will drive the use of BBD in the market, and thus, the BBD standard we establish is unlikely to result in additional burdens on obligated parties. Moreover, as with the other 2022 standards, we have provided parties with significant lead time. Additionally, the volume requirement we are finalizing is consistent with our treatment of the BBD volume requirement in the past (*i.e.,* increasing the BBD volume requirement in accordance with increases in the implied statutory non-cellulosic advanced volume so as to preserve space for other advanced biofuels). Further, the same compliance flexibilities available for the other standards also apply to BBD. We further discuss the BBD standard in Chapter 10 of the RIA and in the RTC document.

G. Summary of the RFS Volumes for 2020–2022

The volumes for 2020, 2021, and 2022 are summarized in Table III.G–1.

TABLE III.G–1—RFS VOLUMES FOR 2020, 2021, AND 2022

[Billion RINs]

Category	2020	2021	2022
Cellulosic Biofuel	0.51	0.56	0.63
Biomass-Based Diesel [a]	[b] 2.43	[c] 2.43	2.76
Advanced Biofuel	4.63	5.05	5.63
Total Renewable Fuel	17.13	18.84	20.63

[a] The BBD volumes are in physical gallons (rather than RINs).
[b] The BBD volume for 2020 was established in the 2019 final rule (83 FR 63704, December 11, 2018).
[c] The BBD volume for 2021 was established in the 2020 final rule (85 FR 7016, February 6, 2020).

H. Quantitative Impacts of the Volumes

As one aspect of our analysis, we estimated certain quantitative impacts of the volumes. As explained in Chapter 2.2 of the RIA, we have used a baseline of the volumes actually supplied in 2020 to quantitatively assess the impacts of this rule, and thus the 2020 volumes have no costs or benefits. We therefore focus on the quantitative impacts of the 2021 and 2022 volumes.[138] We recognize that there are other possible baselines that could be used as a point of comparison, and that the choice of baseline significantly influences our impact analyses. A potential alternative baseline is the volumes of renewable fuels that would be used each year from 2020–2022 in the absence of RFS obligations (a ''No RFS baseline''). While we have generally not used this alternative baseline in this rule for purposes of our quantitative analysis, Chapter 2.2 of the RIA contains a brief description of what such a baseline might look like, and how using such a baseline might affect our analysis of the impacts of this rule. Moreover, many of the qualitative analyses do consider a No RFS baseline.

For some of the statutory factors (fuel costs, cost to transport goods, and energy security benefits), we were able to quantify the expected impacts and also monetize the associated societal impacts.[139] Information and specifics on how fuel costs and the cost to transport goods are calculated are presented in Chapter 9 of the RIA, while energy security benefits are discussed in Chapter 4 of the RIA. A summary of the fuel costs to society and energy security benefits are shown in Tables III.H–1 and 2. As noted above, these numbers estimate the impacts of the 2021 and 2022 volumes relative to a 2020 volumes baseline; that is, the impacts of the use of renewable fuel in 2021 and 2022 relative to the use of renewable fuel in 2020. This is not the same as estimating the causal impacts of this rule. As described earlier in this section, because this rule is retroactive, it is not expected to affect renewable fuel use or production in 2020 or 2021 or to affect the statutory factors (including costs and energy security) insofar as they are based on renewable fuel use or production in those years. While this rule is expected to cause changes in renewable fuel use and production in 2022, the renewable fuel volumes analyzed for 2022 are also impacted by other factors. These include, for instance, the increased use of ethanol as E10 given the projected increase in gasoline consumption in 2022. We further discuss these issues in Chapter 2 of the RIA.

TABLE III.H–1—FUEL COSTS OF THE FINAL VOLUMES

[2021 dollars, millions] [a]

Year	Costs [b]
2021	1,257
2022:	
Excluding Supplemental Volumes	5,260
Including Supplemental Volumes	5,720

[a] These costs represent the costs of producing and using biofuels relative to the petroleum fuels they displace. They do not include other factors, such as the potential impacts on soil and water quality.

[b] In the proposal, costs for 2022 were also presented using 3 percent and 7 percent discount rates, following guidance to federal agencies on development of regulatory analyses.[140] Since 2022 is now the current year, no discounting of future benefits is necessary for this final rule.

TABLE III.H–2—ENERGY SECURITY BENEFITS OF THE FINAL VOLUMES

[2021 dollars, millions]

Year	Benefits [a]
2021	67
2022:	
Excluding Supplemental Volumes	217
Including Supplemental Volumes	227

[a] In the proposal, energy security benefits for 2022 were also presented using 3 percent and 7 percent discount rates, following guidance to federal agencies on development of regulatory analyses.[141] Since 2022 is now the current year, no discounting of future benefits is necessary for this final rule.

[138] The below costs and benefits for both 2021 and 2022 are calculated relative to the actual volumes of renewable fuel used in 2020. The 2022 values therefore reflect the incremental volumes for both 2021 and 2022.

[139] Due to the uncertainty related to the GHG emission impacts of this rule (discussed in further detail in Chapter 3.2 of the RIA) we have not included a quantified projection of the GHG emission impacts of the rule. However, to provide perspective regarding the scope of the potential benefits, Chapter 3.2.2 of the RIA illustrates potential GHG benefits associated with the volumes in this rule using the lifecycle GHG values calculated in the 2010 RFS final rule and other prior actions.

[140] Office of Management and Budget (OMB). *Circular A–4.* September 17, 2003.

Other factors, such as job creation, the price and supply of agricultural commodities, and the impact on food prices are quantified but the societal impacts have not been monetized. We also provided a quantitative estimate of the expected annual rate of future commercial production of renewable fuels. Further information can be found in the RIA. We were not able to quantify many of the impacts of this rulemaking, including those of statutory factors such as environmental impacts and rural economic development. Regardless of whether or not we were able to quantify or monetize a particular impact, we considered each of the statutory factors. As we explained in Section II, the statute does not require quantification. We also did not rely solely on the quantitative impacts to determine the policy in this rulemaking. Rather, we find that the volumes established in this rulemaking are appropriate under the reset authority when we balance all of the relevant factors, which are described throughout this preamble and the RIA.

IV. Response to ACE Remand

In addition to finalizing the applicable volume requirements and percentage standards for 2020, 2021, and 2022, in this rulemaking we are also addressing the remand of the 2014–2016 annual rule [142] by the D.C. Circuit in *ACE.*[143] Previously, in the 2020 proposal, we proposed to address the D.C. Circuit's remand by retaining the original 2016 total renewable fuel standard.[144] We received many comments both in support of and against this approach.[145] In the 2020 final rule, we deferred taking action in response to the remand.[146] We are now addressing the remand through supplemental total renewable fuel volume requirements totaling 500 million gallons spread over two years.[147] We are finalizing a 250-million-gallon supplemental standard to be applied in 2022 coupled with the intention of proposing an additional 250-million-gallon supplemental standard in a subsequent action for 2023. We are establishing the supplemental total renewable fuel volume requirement and the corresponding percentage standard for 2022 in this rulemaking. This section describes the relevant aspects of the 2014–2016 annual rule, the court's decision, EPA's responsibilities following the court's remand, and our approach.

A. Reevaluating the 2014–2016 Annual Rule

1. The 2016 Renewable Fuel Standard

On December 14, 2015, EPA promulgated a rulemaking establishing the volume requirements and percentage standards for 2014, 2015, and 2016.[148] In establishing those standards for 2016, we utilized the cellulosic waiver authority under CAA section 211(o)(7)(D) to lower the cellulosic biofuel, advanced biofuel, and total renewable fuel volume requirements, and the general waiver authority under CAA section 211(o)(7)(A) to lower total renewable fuel by an additional increment.[149]

As an initial step, under CAA section 211(o)(7)(D), we lowered the cellulosic biofuel volume requirement by 4.02 billion gallons, to the projected production of cellulosic biofuel for 2016, as required by the statute.[150] Using that same authority, we then elected to reduce the advanced biofuel and total renewable fuel volumes. We did not reduce the advanced biofuel volume requirement by the full 4.02 billion gallons that was permitted under this authority, but rather by a lesser 3.64 billion gallons that resulted in an advanced biofuel volume requirement that was ''reasonably attainable.'' [151] This allowed some advanced biofuel to ''backfill'' for the shortfall in cellulosic biofuel. We then reduced the total renewable fuel volume by an amount equivalent to the reduction in advanced biofuel in accordance with our longstanding interpretation that when making reductions to advanced biofuel and total renewable fuel under CAA section 211(o)(7)(D), the best reading of the statute is to reduce them both by the same amount.[152]

As a second step, under CAA section 211(o)(7)(A), under a finding of inadequate domestic supply, we further lowered the total renewable fuel standard by 500 million gallons for 2016.[153] In assessing ''inadequate domestic supply,'' we considered the availability of renewable fuel to consumers. Based on such demand-side considerations, we made the additional 500 million gallon reduction in the total renewable fuel requirement.

The 2016 total renewable fuel standard was challenged in court. In an opinion issued on July 28, 2017, the D.C. Circuit vacated EPA's use of the general waiver authority under a finding of inadequate domestic supply to reduce the 2016 total renewable fuel standard, the second step of setting the 2016 total renewable fuel standard.[154] The court in *ACE* held that EPA had improperly focused on the availability of renewable fuel to consumers for use in their vehicles, and that the statute instead requires a ''supply-side'' assessment of the volumes of renewable fuel that can be supplied to refiners, blenders, and importers.[155] Other components of EPA's interpretation of ''inadequate domestic supply'' were either upheld by the court in *ACE* (*e.g.,* EPA need not consider carryover RINs as a ''supply source of renewable fuel for purposes of determining the supply of renewable fuel in a given year'') or were not challenged (*e.g.,* EPA's consideration of biofuel imports as part of the domestic supply). EPA's use of the cellulosic waiver authority to provide the initial reduction in total renewable fuel was also upheld by the court. In establishing volume requirements for subsequent years, EPA has applied the court's holding and not reduced volumes under a finding of inadequate domestic supply.[156]

2. Agency Responsibility

The court in *ACE* upheld EPA's volume requirements for advanced biofuel, BBD, and cellulosic biofuel; there is, therefore, no need for EPA to adjust those 2016 final volume requirements, or to take further action with regard to these standards in light of the court's decision. The court also upheld EPA's use of the cellulosic waiver authority to reduce the 2016 total renewable fuel volume requirement. The court only vacated EPA's decision to further reduce that requirement under the ''inadequate domestic supply'' waiver authority,

[141] Office of Management and Budget (OMB). *Circular A–4.* September 17, 2003.

[142] 80 FR 77420 (December 14, 2015).

[143] 864 F.3d 691 (2017).

[144] 84 FR 36762 (July 29, 2019).

[145] See Docket No. EPA–HQ–OAR–2019–0136.

[146] 85 FR 7016 (February 6, 2020).

[147] We also refer to the supplemental total renewable fuel volume requirement as a ''supplemental standard'' throughout this preamble.

[148] 80 FR 77420 (December 14, 2015). The rule also established BBD volume for 2017.

[149] 80 FR 77439 (December 14, 2015).

[150] 80 FR 77499 (December 14, 2015).

[151] 80 FR 77427.

[152] *Id.*

[153] 80 FR 77444.

[154] *ACE,* 864 F.3d 691.

[155] *Id.* at 696, 707.

[156] We note that the precedential effect of the *ACE* decision has governed subsequent RFS annual rules. Compare, *e.g.,* 82 FR 34229 & n.82 (July 21, 2017) (2018 annual rule proposal, issued prior to *ACE*) (soliciting comment on whether it would be appropriate to exercise the inadequate domestic supply waiver authority based on the maximum reasonably achievable volume'' of renewable fuel, which incorporates demand-side considerations), with 82 FR 46177 (Oct. 4, 2017) (2018 annual rule availability of supplemental information and request for comment, issued after *ACE*) (recognizing, under *ACE,* that EPA may not consider demand-side constraints in determining inadequate domestic supply).

remanding this issue to EPA for further consideration consistent with the court's opinion.[157] EPA's obligation is thus to reevaluate the 2016 total renewable fuel volume requirement in accordance with the court's decision.

B. Consideration of Approaches for Responding to the ACE Remand

As discussed in the previous section, EPA waived 500 million gallons of total renewable fuel volume associated with the 2016 volume requirements. In 2017, after the compliance year had passed, and after obligated parties had demonstrated compliance with those requirements, we received the *ACE* court's decision rejecting EPA's use of the general waiver authority under a finding of inadequate domestic supply to reduce volumes as being beyond our statutory authority and remanding the rulemaking action back to EPA. Given that compliance demonstrations had already occurred, and we had proposed volume requirements for 2017 factoring in the 2016 standards as originally promulgated,[158] we were faced with the question of whether we should reopen 2016 compliance, or factor the waived volume into a future standard, as discussed further in this section. In this action, we are taking an initial step to address the court's remand through a supplemental standard of 250 million gallons of total renewable fuel in 2022, with the intent of proposing an additional supplemental standard of 250 million gallons of total renewable fuel to be required in 2023 in a subsequent action. As the court invalidated only the 500 million gallon total renewable fuel reduction, we are therefore limiting our response to the remand to only the 2016 total renewable fuel standard and the corresponding 500 million gallon reduction stemming from our use of the general waiver authority. Since total renewable fuel is not a subcategory nested within any other volume category, this approach will not affect the other standards.

1. Response to the ACE Remand

We proposed to address the *ACE* decision by applying a 250-million-gallon supplemental standard in 2022 with the intention of proposing an additional 250-million-gallon supplemental standard for 2023 in a subsequent rulemaking action. We received comments both in support of such an approach, and against such an action. Despite comments suggesting we should not impose a supplemental standard, or that we should impose a lesser supplemental standard, we are finalizing the supplemental standard as proposed.

Under this approach, the original 2016 standard for total renewable fuel will remain unchanged and the compliance demonstrations that obligated parties made for it will likewise remain in place. A supplemental standard for 2022 will thus avoid the difficulties associated with reopening 2016 compliance, as discussed below. This supplemental standard will have the same practical effect as increasing the 2022 total renewable fuel volume requirement by 250 million gallons, as compliance will be demonstrated using the same RINs as used for the 2022 standard. The percentage standard for the supplemental standard is calculated the same way as the 2022 percentage standards (*i.e.,* using the same gasoline and diesel fuel projections), such that the supplemental standard is additive to the 2022 total renewable fuel percentage standard. This approach will provide a meaningful remedy in response to the court's vacatur and remand in *ACE* and will effectuate the Congressionally determined renewable fuel volume for 2016, modified only by the proper exercise of EPA's waiver authorities, as upheld by the court in *ACE* and in a manner that can be implemented in the near term. It is with emphasis on these considerations that we are taking a different approach from the one proposed in the 2020 proposal.[159]

We are treating such a supplemental standard as a supplement to the 2022 standards, rather than as a supplement to standards for 2016, which has passed. In order to comply with any supplemental standard, obligated parties will need to retire available RINs; it is thus logical to require the retirement of available RINs in the marketplace at the time of compliance with this supplemental standard. As discussed below, it is no longer possible for obligated parties to comply with a 500-million-gallon 2016 obligation using 2015 and 2016 RINs as required by our regulations. Thus, compliance with a supplemental standard applied to 2016 would be impossible barring EPA reopening compliance for all years from 2016 onward. By applying the supplemental standard to 2022 instead of 2016, RINs generated in 2021 and 2022 will be used to comply with the 2022 supplemental standard. Additionally, as provided by our regulations, RINs generated in 2015 and 2016 could only be used for 2015 and 2016 compliance demonstrations,[160] and obligated parties had an opportunity at that time to utilize those RINs for compliance or sell them to other parties, while ''banking'' RINs that could be utilized for future compliance years.

In applying the supplemental standard to 2022, we are treating the supplemental standard like a 2022 standard in all respects. That is, producers and importers of gasoline and diesel fuel that are subject to the 2022 standards are also subject to the supplemental standard. The applicable deadlines for attest engagements and compliance demonstrations that apply to the 2022 standards also apply to the supplemental standard. Due to the 2022 supplemental standard being administratively included in the 2022 standard, the gasoline and diesel fuel volumes used by obligated parties to calculate their obligations to satisfy the 2022 supplemental standard will be their 2022 gasoline and diesel production and importation. Additionally, obligated parties may effectively use 2021 RINs for up to 20 percent of their 2022 supplemental standard as allowed under the RFS regulations.[161] We intend to provide more guidance for obligated parties regarding submitting annual compliance reports for the 2022 compliance year on our website closer to the 2022 annual compliance reporting deadline.[162]

As described more fully in Section III, the volume requirements for 2022 are market-forcing, requiring a growth in renewable fuel volumes that we believe is achievable. We nevertheless believe that compliance with the 2022 supplemental standard in addition to the 2022 annual standards is feasible and can be achieved through the actual use of renewable fuels, including imports, in 2022 as opposed to carryover RINs. However, if the 2022 supplemental standard cannot be fully met through the supply of additional renewable fuel volumes in 2022, it could be met through a drawdown of the carryover RIN bank.[163] After compliance with the 2019–2021 standards, the carryover RIN bank is expected to consist of approximately

[157] *Id.* at 703.

[158] 81 FR 34778 (May 31, 2016).

[159] See *FCC* v. *Fox,* 556 U.S. 502 (2009), acknowledging an agency's ability to change policy direction.

[160] 2016 RINs could also be used for up to 20 percent of an obligated party's 2017 compliance demonstrations.

[161] See 40 CFR 80.1427(a)(5).

[162] Information and guidance related to annual compliance reporting instructions for obligated parties will be available at: *https://www.epa.gov/fuels-registration-reporting-and-compliance-help/how-report-quarterly-and-annually-renewable-fuel.*

[163] See Section III.B for a discussion of carryover RINs.

1.83 billion total carryover RINs for compliance in 2022.[164] We acknowledge that the size of the carryover RIN bank may change somewhat by the 2022 compliance deadline. However, given the projected size of the carryover RIN bank in light of the revised 2020 standards, we think it is virtually certain that more than 250 million total carryover RINs will be available in 2022.

We recognize that in the 2020 proposal, we indicated that a supplemental standard would result in a drawdown of the carryover RIN bank. We do not believe that is the case today, with a 250-million-gallon supplemental standard as opposed to the full 500 million gallons, and supported by our analysis in Chapter 5 of the RIA, demonstrating that the market is capable of achieving the supplemental volumes with increased biofuel use. Nonetheless, we acknowledge that the market has the option of using carryover RINs to meet the supplemental standard. Such use would be consistent with a purpose of the carryover RIN bank. As we stated in the 2020 final rule, ''[t]he current bank of carryover RINs provides an important and necessary programmatic and cost spike buffer that will both facilitate individual compliance and provide for smooth overall functioning of the program.'' [165] As discussed in Section III.B, we continue to believe that a significant carryover RIN bank is fundamental to the functionality and success of the RFS program.

Attempting to restore waived volumes many years after the close of the compliance period brings with it significant challenges, particularly in the context of this final action where we are already setting market-forcing standards for 2022. By phasing in the 500 million gallons of total renewable fuel associated with the *ACE* remand through the implementation of two supplemental standards over two compliance years, we believe that we can lessen both the disruption to the market and the burden on obligated parties and maintain the functionality of the carryover RIN bank. Imposing two 250-million-gallon supplemental standards in two compliance years, as opposed to one 500-million-gallon supplemental standard in a single compliance year, provides additional notice for both obligated parties and the renewable fuel industry about the additional volume requirements and lessens the additional requirements for each compliance year. This should increase the likelihood that the volumes are met with additional renewable fuel use and, in turn, lessen the likelihood that the carryover RIN bank is drawn down.

In summary, we are implementing a 250-million-gallon supplemental standard in 2022 and intend to propose an additional 250-million-gallon supplemental standard in 2023, totaling 500 million gallons, which represent the reduction in the 2016 total renewable fuel volume improperly waived under the general waiver authority. This approach addresses our obligation to respond to the *ACE* remand while accounting for the unique timing of imposing a 2016 requirement in 2022. This approach allows obligated parties to comply with the 2022 supplemental standard using 2021 and 2022 RINs.

2. Consideration of Alternatives

In the proposed rule, we laid out our thinking regarding an alternative approach of reopening 2016 compliance. We also considered maintaining the 2016 standards, as finalized in 2016, and as proposed in the 2020 proposal. Finally, we considered additional reductions in 2016 volumes utilizing our cellulosic or general waiver authority as suggested by several commenters. These alternatives are further discussed, and rejected, in Section 8 of the RTC document.

C. Demonstrating Compliance With the 2022 Supplemental Standard

We will prescribe formats and procedures as specified in 40 CFR 80.1451(j) for how obligated parties will demonstrate compliance with the 2022 supplemental standard that simplifies the process in this unique circumstance.[166] Although the 2022 supplemental standard is a regulatory requirement separate from and in addition to the 2022 total renewable fuel standard, obligated parties will submit a single annual compliance report for both the 2022 annual standards and the supplemental standard. Obligated parties will only report a single number for their total renewable fuel obligation in the 2022 annual compliance report.[167] Obligated parties only need to submit a single annual attest engagement report for the 2022 compliance period that covers both the 2022 annual standards and the 2022 supplemental standard.[168] If we set a 2023 supplemental standard as intended, we intend to use the same approach for the annual compliance demonstration for the 2023 compliance period as well.

To assist obligated parties with this unique compliance situation, we intend to issue guidance with instructions on how to calculate and report the values to be submitted in the 2022 compliance reports.[169]

D. Authority and Consideration of the Benefits and Burdens

In establishing the 2016 total renewable fuel standard, EPA waived the required volume of total renewable fuel by 500 million gallons using the inadequate domestic supply general waiver authority. The use of that waiver authority was vacated by the court in *ACE* and the rule was remanded to the EPA. In order to remedy our improper use of the inadequate domestic supply general waiver authority, we find that it is appropriate to treat our authority to establish a supplemental standard at this time as the same authority used to establish the 2016 total renewable fuel volume requirement—CAA section 211(o)(3)(B)(i)—which requires EPA to establish percentage standard requirements by November 30 of the year prior to which the standards will apply and to ''ensure'' that the volume requirements ''are met.'' EPA exercised this authority for the 2016 standards once already. However, the effect of the *ACE* vacatur is that there remain 500 million gallons of total renewable fuel from the 2016 statutory volumes that were not included under the original exercise of EPA's authority under CAA section 211(o)(3)(B)(i). We are now utilizing the same authority to correct our prior action, and ''ensure'' that the

[164] As noted in Section III.B, we project that there will be 1.83 billion total carryover RINs after compliance with the 2019 standards. Since we are setting both the 2020 and 2021 volume requirements at the actual volume of renewable fuel consumed in those years, 1.83 billion total carryover RINs will be available for compliance with the 2022 standards as well. The calculations performed to estimate the number of carryover RINs currently available can be found in the memorandum, ''Carryover RIN Bank Calculations for 2020–2022 Final Rule,'' available in the docket for this action.

[165] 85 FR 7020–22 (February 6, 2020).

[166] We note that we are not changing the reporting regulations at 40 CFR 80.1451(a), as we do not believe that regulatory changes are needed to accommodate annual compliance demonstration for the 2022 supplemental standard.

[167] Obligated parties demonstrate annual compliance by following the reporting instructions entitled, ''Instructions for RFS0304: RFS Annual Compliance Report'' (RFS0304 report). A copy of these reporting instructions is available in the docket of this action. Obligated parties will combine the 2022 total renewable fuel standard with the 2022 supplemental standard in ''Field 18'' of the RFS0304 report. This combined value is then multiplied by the obligated gasoline and diesel fuel volume reported as specified in reporting instructions for ''Field 20'' of the RFS0304 report.

[168] We are not modifying the deadline for the attest engagement reports for the 2022 compliance period in this action.

[169] A link to this guidance will be available at: *https://www.epa.gov/fuels-registration-reporting-and-compliance-help/how-report-quarterly-and-annually-renewable-fuel.*

volume requirements ''are met,'' and we are doing so significantly after November 30, 2015. Therefore, we have considered how to balance benefits and burdens and mitigate hardship by our late issuance of this standard. Additionally, as we have in the past, we rely on our authority in CAA section 211(o)(2)(A)(i) to promulgate late standards.[170] CAA section 211(o)(2)(A)(i) requires that EPA ''ensure'' that ''at least'' the applicable volumes ''are met.'' [171] Because the D.C. Circuit vacated our waiver of 500 million gallons of total renewable fuel from the original 2016 standards, we are now taking action to ensure that at least the applicable volumes from 2016 are ultimately met. We have determined that the appropriate means to do so is through the use of two 250 million gallon supplemental standards, one in 2022, as finalized in this action, and in 2023, as we intend to propose in a subsequent action.

We have sought to mitigate the burdens of a late and partially retroactive standard by implementing a supplemental standard that applies for the 2022 compliance year. Although we established a total renewable fuel standard in 2016, we did so while erroneously waiving 500 million gallons of total renewable fuel through the use of our general waiver authority. In this action, we are beginning to remedy that error by requiring an additional 250 million gallon total renewable fuel volume requirement in the 2022 compliance year.[172]

As noted in Section II.C, in *ACE* and two prior cases, the court upheld EPA's authority to issue late renewable fuel standards, even those applied retroactively, so long as EPA's approach is reasonable.[173] EPA must consider and mitigate the burdens on obligated parties associated with a delayed rulemaking.[174] When imposing a late or retroactive standard, we must balance the burden on obligated parties of a retroactive standard with the broader goal of the RFS program to increase renewable fuel use.[175] The approach we are taking in this action would implement a late standard, with partially retroactive effects, as described in these cases. Obligated parties made their RIN acquisition decisions in 2016 based on the standards as established in 2016 and they may have made different decisions had we not reduced the 2016 total renewable fuel standard by 500 million gallons using the general waiver authority. Were EPA to create a supplemental standard for 2016 designed to address the use of the general waiver authority in 2016, we would be imposing a wholly retroactive standard on obligated parties, but because the supplemental standard will be complied with in the 2022 compliance year, it will instead be a late standard with partially retroactive effects. Pursuant to the court's direction, we have carefully considered the benefits and burdens of our approach and considered and mitigated the burdens to obligated parties caused by the lateness.

We acknowledge that in the 2020 proposal, we stated that a supplemental standard would ''impose a significant burden on obligated parties'' that would ''be unduly burdensome and inappropriate'' and lack ''any corresponding benefit as any additional standard cannot result in additional renewable fuel use in 2016.'' [176] Our approach mitigates the associated burdens or even entirely avoids most of the burdens we described in the 2020 proposal. As an initial matter, we believe that the combined 2022 total renewable fuel obligation and the supplemental standard can be met with actual use of renewable fuel in 2022. Additionally, the current size of the carryover RIN bank is sufficient to mitigate the burden on obligated parties from a supplemental standard and spreading the 500 million gallon volume over two compliance years also mitigates the burdens on the carryover RIN bank, should parties choose to comply utilizing carryover RINs.

We believe that the approach described in this action provides benefits that outweigh potential burdens. Consistent with the 2016 renewable fuel volume established by Congress, our supplemental standard for 2022 and intended supplemental standard for 2023 are in total equivalent to the volume of total renewable fuel that we inappropriately waived for the 2016 total renewable fuel standard. The use of these supplemental standards phased across two compliance years provides a meaningful remedy to the D.C. Circuit's vacatur of EPA's use of the general waiver authority and remand of the 2016 rule in *ACE.* While this action cannot result in additional renewable fuel used in 2016, it can result in additional fuel use in 2022. We believe that that while the additional volume in 2022 will put increased pressure on the market, it is nevertheless feasible and achievable.

We have carefully considered and designed this approach to mitigate any burdens on obligated parties. We have considered the availability of RINs to satisfy this additional requirement. We are imposing a supplemental standard to the 2022 standards that will apply in the 2022 compliance year. Doing so allows 2021 and 2022 RINs to be used for compliance with the 2022 supplemental standard, in keeping with existing RFS regulations. We believe there will be a sufficient number of 2021 and 2022 RINs to satisfy the 2022 supplemental standard.

Second, we provide significant lead-time for obligated parties by imposing this standard as supplemental to the 2022 standard. Obligated parties will have the same amount of additional time to comply with this standard as the 2022 standard, as discussed in Section III.E.

Third, we are providing multiple mechanisms to mitigate the compliance burden. One step is to designate that the response to the *ACE* remand will be a supplement to the 2022 standards. This approach not only allows the use of 2021 and 2022 RINs for compliance with the 2022 supplemental standard, as described earlier, but it also avoids the need for obligated parties to revise their 2016 (and potentially 2017, 2018, 2019, etc.) compliance demonstrations, which would be a burdensome and time-consuming process. In addition, our approach allows obligated parties to satisfy both the 2022 annual standards and the supplemental standard in a single set of compliance and attest engagement demonstrations. We are also extending the same compliance flexibility options already available for the 2022 annual standards to the 2022 supplemental standard, including allowing the use of carryover RINs and deficit carryforward subject to the conditions of 40 CFR 80.1427(b)(1). We are also applying a supplemental standard for 2022 that partially addresses the remand, and intend to address the remainder of the remanded volumes in a future year. This will allow obligated parties and renewable fuel producers additional lead time to meet the standard.

[170] In promulgating the 2009 and 2010 combined BBD standard, upheld by the D.C. Circuit in *NPRA* v. *EPA,* 630 F.3d 145 (2010), we utilized express authority under section 7545(*o*)(2). 75 FR 14670, 14718.

[171] See also CAA section 211(*o*)(2)(A)(iii)(I), requiring that ''regardless of the date of promulgation,'' EPA shall promulgate ''compliance provisions applicable to refineries, blenders, distributors, and importers, as appropriate, to ensure that the requirements of this paragraph are met.''

[172] As noted earlier, we intend to propose an additional 250-million-gallon supplemental standard for 2023 in a subsequent action.

[173] See *ACE,* 864 F.3d at 718; *Monroe Energy, LLC* v. *EPA,* 750 F.3d at 920; *NPRA,* 630 F.3d at 154–58.

[174] *ACE,* 864 F.3d at 718.

[175] *NPRA,* 630 F.3d at 154–58.

[176] 84 FR 36788 (July 29, 2019).

Lastly, we have carefully considered alternatives, including retaining the 2016 total renewable fuel volume as described in the 2020 proposal, and additional waivers.

On balance, we find that requiring an additional 250 million gallons of total renewable fuel to be complied with through a supplemental standard for 2022 (with our intention to do so again in 2023) to be an appropriate response to the court's vacatur and remand of our use of the general waiver authority to waive the 2016 total renewable fuel standard by 500 million gallons.

E. Calculating a Supplemental Percentage Standard for 2022

The formulas in 40 CFR 80.1405(c) for calculating the applicable percentage standards were designed explicitly to associate a percentage standard for a particular year with the volume requirement for that same year. The formulas are not designed to address the approach that we are establishing in this action, namely the use of a 2016 volume requirement to calculate a 2022 percentage standard. Nonetheless, we can apply the same general approach to calculating a supplemental percentage standard for 2022.

The numerator in the formula in 40 CFR 80.1405(c) is the supplemental volume of 250 million gallons of total renewable fuel. The values in the denominator remain the same as those used to calculate the 2022 percentage standards in Section V.D, which can be found in Table V.D–1. As described in Section V.D, the resulting supplemental total renewable fuel standard percentage standard for a 250-million-gallon volume requirement in 2022 is 0.14 percent.

The supplemental standard for 2022 is a requirement for obligated parties separate from and in addition to the 2022 total renewable fuel standard. The two percentage standards are listed separately in the regulations at 40 CFR 80.1405(a), but in practice obligated parties will need to demonstrate compliance with both at the same time. Thus, the two percentage standards in Section V.D are effectively additive (*i.e.,* 11.59% + 0.14% = 11.73%).

V. Percentage Standards

EPA implements the nationally applicable volume requirements by establishing percentage standards that apply to obligated parties.[177] The obligated parties are producers and importers of gasoline and diesel fuel, as defined by 40 CFR 80.1406(a). The standards are expressed as volume percentages. Each obligated party multiplies the percentage standards by the total volume of all non-renewable gasoline and diesel fuel they produce or import to determine their RVOs.[178] The RVOs are the number of RINs that the obligated party is responsible for procuring to demonstrate compliance with the RFS rule for that year. Since there are four separate standards under the RFS program, there are likewise four separate RVOs applicable to each obligated party for each year.

The volumes used to determine the 2020, 2021, and 2022 percentage standards (including the 2022 supplemental standard) are described in Sections III and IV and are shown in Table V–1.

TABLE V–1—VOLUMES FOR USE IN DETERMINING THE APPLICABLE PERCENTAGE STANDARDS

[Billion RINs]

Standard	2020	2021	2022
Cellulosic Biofuel	0.51	0.56	0.63
Biomass-Based Diesel [a]	[b] 2.43	[c] 2.43	2.76
Advanced Biofuel	4.63	5.05	5.63
Total Renewable Fuel	17.13	18.84	20.63
Supplemental Standard	n/a	n/a	0.25

[a] The BBD volumes are in physical gallons (rather than RINs).
[b] The BBD volume requirement for 2020 was established in the 2019 standards rulemaking (83 FR 63704, December 11, 2018).
[c] The BBD volume requirement for 2021 was established in the 2020 standards rulemaking (85 FR 7016, February 6, 2020).

In this section, we also reaffirm the regulatory change to the percentage standard formulas from the 2020 final rule, which account for a projection of the aggregate volume for SREs that we expect to grant for each compliance year. This section also provides our rationale for that projection of exempt gasoline and diesel volume. Additionally, we also describe our intended approach for evaluating SREs going forward.

A. Calculation of Percentage Standards

The formulas used to calculate the percentage standards applicable to obligated parties are provided in 40 CFR 80.1405(c). The formulas apply to the estimates of the volumes of non-renewable gasoline and diesel fuel—for both highway and nonroad uses—that are projected to be used in the year in which the standards will apply. EIA provides projected gasoline and diesel fuel volumes, but these include projections of ethanol and BBD used in transportation fuel. Since the percentage standards apply only to the non-renewable portions of gasoline and diesel fuel, the volumes of renewable fuel are subtracted out of the EIA projections of gasoline and diesel fuel. In addition, transportation fuels other than gasoline or diesel fuel (*e.g.,* natural gas, propane, and electricity from fossil fuels) are not currently subject to the RFS standards, and volumes of such fuels are not used in calculating the annual percentage standards or obligated parties' RVOs.

As specified in the 2010 RFS2 final rule,[179] the percentage standards are based on energy-equivalent gallons of renewable fuel, with the cellulosic biofuel, advanced biofuel, and total renewable fuel standards based on ethanol equivalence and the BBD standard based on biodiesel equivalence. However, all RIN generation is based on ethanol-equivalence. To effectuate this difference between BBD and the other three standards, the formula used to calculate the percentage standard for BBD in 40 CFR 80.1405 includes a factor of 1.5 to convert physical volumes of BBD into ethanol-equivalent volumes. We are applying the 1.5 conversion factor for the calculations of the 2020–2022 BBD percentage standards.

B. Small Refineries and Small Refiners

In CAA section 211(o)(9), Congress exempted small refineries from RFS compliance temporarily through December 31, 2010. Congress also

[177] See CAA section 211(o)(3)(B).

[178] 40 CFR 80.1407.

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

provided that small refineries could receive an extension of the exemption beyond 2010 based either on the results of a required Department of Energy (DOE) study or in response to individual SRE petitions demonstrating ''disproportionate economic hardship.'' CAA section 211(o)(9)(B)(i).

In the 2020 final rule, EPA revised certain definitions in the percentage standards formulas at 40 CFR 80.1405(c) to account for a projection of the total exempted volume of gasoline and diesel produced at small refineries, including for those exemptions granted after the final rule. We sought comment on this approach in the proposed rule associated with this action. We are reaffirming our modified definitions in this action and utilizing those definitions to calculate the projected exemptions for 2020, 2021, and 2022.

1. Reaffirmation of the Modified Definitions From the 2020 Final Rule

In the 2020 final rule, we finalized changes to the definitions of two relevant terms in the percentage standard formulas at 40 CFR 80.1405(c), GE_i and DE_i.[180] We stated that these terms represent a projection of the exempted volume of gasoline and diesel fuel, regardless of whether we had adjudicated exemptions for that year by the time of the final rule establishing the percentage standards. The term ''GE_i'', representing the volume of exempt gasoline, was defined as ''the total amount of gasoline projected to be exempt in year i, in gallons, per §§ 80.1441 and 80.1442.'' Similarly, the term ''DE_i'', representing the volume of exempt diesel, was defined as ''the total amount of diesel projected to be exempt in year i, in gallons, per §§ 80.1441 and 80.1442.''

At the time of the 2020 final rule, this approach entailed a change in policy.[181] We acknowledged that we previously did not account for SREs granted after an annual rule, and at times we even suggested that doing so was improper.[182] We set forth several rationales for our change in policy. As we explain below, our rationale for maintaining the 2020 final rule's approach largely overlaps with the rationales we previously presented, but also differs in some respects.

First, the basic legal rationale for the modified definitions remains the same. Namely, while the statute does not specifically require EPA to redistribute exempted volumes in this manner, this is a reasonable interpretation of our authority under *Chevron* v. *Natural Resources Defense Council (NRDC).*[183] Indeed, making this projection harmonizes various statutory provisions. The statute authorizes small refineries to petition for and EPA to grant an exemption based on disproportionate economic hardship ''at any time,'' [184] while also directing EPA to promulgate standards by November 30 of the prior year to ''ensure[ ]'' that the renewable fuel volumes are met.[185] In other words, small refineries may seek and EPA may grant hardship exemptions at any time, including after the percentage standards are established. Meanwhile, EPA has authority to account for a projection of these exemptions in the annual rule to ''ensure'' the renewable fuel volumes.[186] In more concrete terms, accounting for a projection of subsequently granted SREs in establishing the standards better ensures the volumes are met by increasing the standards on the non-exempt obligated parties.

Second, it remains true that this approach is consistent with our previous statements that ''the Act is best interpreted to require issuance of a single annual standard in November that is applicable in the following calendar year, thereby providing advance notice and certainty to obligated parties regarding their regulatory requirements. Periodic revisions to the standards to reflect waivers issued to small refineries or refiners would be inconsistent with the statutory text, and would introduce an undesirable level of uncertainty for obligated parties.'' [187] By projecting exempted volumes in advance of issuing annual standards, we can issue a single set of standards for each year without the need for subsequent revisions and the associated uncertainty for obligated parties.

We acknowledge that in this action we are revising the 2020 standards based in part on changes to our SRE policies that rendered the projection in the 2020 final rule inaccurate. However, as we explain in Section III.C, the reconsideration of the 2020 standards is based on unique circumstances, including the significant SRE policy changes and effects of the COVID–19 pandemic on transportation fuel use. This is not a scenario that we expect to recur on a regular or periodic basis.

Third, we believe that we can project the exempt small refinery volume with reasonable accuracy despite the uncertainties associated with this projection. In prior annual rulemakings, we had noted that ''Congress allowed for some imprecision to exist in the actual volumes of renewable fuel that are consumed as a result of the percentage standards that we set each November. . .'' [188] as well as the inherent difficulties of projecting exempted small refinery volumes.[189] However, we are projecting only the aggregate exempted volume in a given compliance year. We thus need not wrestle with the difficulties of predicting precisely which refineries will apply or the economic circumstances of specific refineries in a given compliance year. We only need to estimate the total exempted volume.

Moreover, prior to the 2020 final rule, EPA had not articulated its prospective policy to adjudicating SRE petitions for those compliance years. For instance, in the 2018 final rule, we did not state our policy to adjudicating 2018 SRE petitions. Instead, we articulated that policy in a separate memorandum issued after the annual rule.[190] Since EPA's policy to adjudicating SRE petitions affects the exempted volume, not having established this policy at the time of the annual rule made it very challenging to project the exempted volume. By contrast, in this action, we have the benefit of a stated policy for adjudicating SRE petitions. As we explain below, we have also actually adjudicated numerous SRE petitions for 2020 and 2021 based on this policy. These facts strongly augment our ability to reasonably project the exempted volume for 2020–2022.

Fourth, in the 2020 final rule, we indicated that the revised definitions resulted in reallocating a projection of significant exempted volumes for the purpose of better ensuring that the renewable fuel volumes were met. We

[180] 85 FR 7016 (February 6, 2020).

[181] See *FCC* v. *Fox Television Stations, Inc.,* 556 U.S. 502, 515 (2009).

[182] See 78 FR 49825–49826; 77 FR 1340; EPA's Br., Doc No. 1757157, D.C. Cir. No. 17–1258, *AFPM* v. *EPA* (Oct. 25, 2018) (''EPA Br. in *AFPM*'').

[183] *Chevron, U.S.A., Inc.* v. *Nat. Res. Def. Council, Inc.,* 467 U.S. 837, 842–44 (1984).

[184] CAA section 211(o)(9)(B)(i).

[185] CAA section 211(o)(3)(B)(i); see also CAA section 211(o)(2)(A)(i), (2)(A)(iii)(I), CAA section 301(a). This projection, moreover, is hardly unique in the RFS program as Congress required numerous projections in the implementation of the program. *See, e.g.,* CAA section 211(o)(7)(D) (projection of the volume of cellulosic biofuel production); (o)(3)(A) (projection of the volumes of transportation fuel, biomass-based diesel, and cellulosic biofuel).

[186] See CAA section 211(o)(2)(A)(i), (2)(A)(iii)(I), (3)(B)(i); see also CAA section 301(a).

[187] 77 FR 1340 (January 9, 2012).

[188] 77 FR 1340 (January 9, 2012).

[189] EPA Br. in *AFPM* 72–77.

[190] ''Decision on 2018 Small Refinery Exemption Petitions,'' Memorandum from Anne Idsal, Acting Assistant Administrator, Office of Air and Radiation to Sarah Dunham, Director, Office of Transportation and Air Quality. August 9, 2019. We note that this decision was subsequently remanded to EPA, and EPA issued a new decision on April 7, 2022. ''Denial of Petitions for RFS Small Refinery Exemptions,'' EPA–420–R–22–005, April 2022.

noted that the projection of significant exempt volumes was consistent not only with our prospective SRE policy at the time but also with our then-recent experience administering the RFS program and the relatively high levels of volumes exempted after the promulgation of the relevant annual rules. These facts have since changed. As we explain below, we are projecting an exempt volume of zero gallons based on our new SRE policy. Thus, the projection has no impact on the calculation of the 2020–2022 percent standards. Stated differently, even were we to apply the prior formula definitions used in the 2019 and earlier final rules, we would establish the same percent standards.

Nonetheless, we are choosing to maintain the modified definitions for several reasons. First, as we explained above, we think the modified definitions properly harmonize the statutory directives to ''ensure'' that the volumes are met with the statutory authority to grant SREs ''at any time,'' including after the promulgation of the annual standards. Second, while we are not aware of any circumstances that would warrant EPA granting SREs given the technical findings in the recent SRE denials as explained further below, the statute nonetheless continues to provide authority to grant SREs. In the event EPA does grant SREs for some future compliance year, accounting for a projection of SREs would in fact better ''ensure'' that the volumes are met. Third, as we noted in the 2020 final rule, we received numerous comments on this issue as well as a petition for reconsideration. Based on this significant stakeholder input, we conducted a comprehensive legal, policy, and technical analysis of this issue and decided to modify the definitions in that final rule. While we chose to reexamine this issue and retain the authority to further revise the definitions, we are mindful of the importance of maintaining regulatory repose and certainty where appropriate. Finally, in this action, we also received many supportive comments on our approach. While we also received some adverse comments, those commenters largely rehashed arguments that we considered and rejected at the time of the 2020 final rule. In any event, no commenter presented us with a sufficient rationale for changing course once again. We further address these comments in Section 7 of the RTC document.

2. Projection of Exempt Volumes

We are finalizing a projected exempted volume of zero gallons for all years. This was the low end of the range that we proposed, consistent with the Tenth Circuit's decision in *RFA* v. *EPA.*[191] We are finalizing this projection based on our recent actions denying pending SRE petitions for 2016–2021, including all petitions for 2020 and 2021.[192] In these actions, we stated, consistent with *RFA,* that SREs should only be granted based on hardship due to RFS compliance, not other factors. We further found, consistent with our prior actions, that that no small refinery suffers hardship due to the RFS program because all small refineries are able to pass through the RIN costs of RFS compliance onto their customers in the form of higher sales prices on gasoline and diesel fuel. Accordingly, we denied the SRE petitions. This was also the primary rationale for the low end of the projection we set forth in the proposed rule. We intend to apply this same reasoning to future SRE petitions, and we are not aware of any circumstances at the current time that would warrant EPA granting SREs for the 2020, 2021, or 2022 compliance years. Therefore, we project that there will be no exempt volume from SREs under 40 CFR 80.1405(c) for 2020, 2021, and 2022.

The decision denying all existing 2020 and 2021 SRE petitions forms the primary basis for our 2020 and 2021 projections. While the regulatory language refers to the amount of gasoline and diesel fuel projected to be exempt (*i.e.,* the volume of exempt gasoline and diesel fuel as a result of SREs), in this action we are in the unique position of having adjudicated all 2020 SRE petitions and can use the actual exempt volume of gasoline and diesel fuel. As there has been no volume exempt thus far, and we do not anticipate granting any further exemptions, the best projection for use in the 2020 percentage standard formula is zero gallons of exempt gasoline and diesel fuel. For 2021, although we have only adjudicated five petitions, we intend to apply the same reasoning to any future petitions we received for 2021. Thus, we are also projecting zero gallons of exempt gasoline and diesel fuel for 2021. Finally, for 2022, although we have not adjudicated any SRE petitions for this year, nor do we have any petitions pending before us, we intend to apply the same reasoning to future petitions for 2022. Thus, we are also projecting zero gallons of exempt gasoline and diesel fuel for 2022. This approach was supported by many commenters.

EPA's projection of zero exempt volume is the Agency's best estimate based on the information available to us at this time. However, actual decisions on future petitions must await EPA's receipt and adjudication of those petitions. We are not in this action resolving any SRE petitions or prejudging the outcome of future petitions.

C. Modification of the 2020 BBD Percentage Standard

As noted above, the percentage standards implement the nationally applicable volume requirements. Since EPA is modifying 2020–2022 cellulosic biofuel, advanced biofuel, and total renewable fuel volumes in this action, we are also establishing percentage standards corresponding to those volumes. Further, we are establishing the 2022 BBD volume and associated percentage standard using our set authority as described in Section III.F. With regard to the 2020 and 2021 BBD volumes, EPA is not revising such volumes, which were established in the 2019 and 2020 final rules, respectively.[193] Nonetheless, for the 2021 BBD standard, EPA did not previously promulgate percentage standards, and thus we do so now for the first time.[194]

We are also revising the BBD percentage standard for the 2020 volume. EPA previously promulgated the 2020 BBD volume in the 2019 final rule and the associated percentage standards in the 2020 final rule.[195] In this action, EPA is modifying only the 2020 BBD percentage standard, not the 2020 BBD volume. Specifically, we are using the same volume requirement previously promulgated (2.43 billion gallons) but updating the other inputs for calculating the standard (such as the projections of gasoline and diesel fuel consumption and exempted gasoline and diesel fuel volumes in 2020), which

[191] We also proposed a high end of the range, consistent with the SRE policy set forth in the 2020 final rule. However, that policy is no longer EPA's policy. Nor did we apply that policy in actually adjudicating any SREs for 2020, 2021, or 2022. Thus, it cannot the basis for the projection.

[192] See ''April 2022 Denial of Petitions for RFS Small Refinery Exemptions,'' EPA–420–R–22–005, April 2022; ''June 2022 Denial of Petitions for RFS Small Refinery Exemptions,'' EPA–420–R–22–011, June 2022.

[193] 83 FR 63704 (December 11, 2018); 85 FR 7016 (February 6, 2020). In this action, we are not reopening nor did we seek comment on the 2020 or 2021 BBD volume requirements.

[194] This action is consistent with past annual rules, which have generally promulgated the BBD percentage standard for the BBD volume set in the prior year's annual rule. This is due to the unique statutory timing applicable to BBD, where EPA must set the volume 14 months in advance but promulgate percentage standards by November 30 of the immediately preceding year. See CAA section 211(o)(2)(B)(ii), (o)(3)(B)(i).

[195] 85 FR 7049 (February 6, 2020).

we term ''inputs'' in the remainder of this section. The full list of inputs is set forth in Section V.D below.

We are updating the inputs because it is logical for all of the 2020 percentage standards to be calculated using the same inputs. This is consistent with EPA's policy since the beginning of the RFS program, where we have generally calculated all the percentage standards for a given year based on the same inputs. Here, because we are updating the inputs for the other 2020 percentage standards, we also are modifying the inputs for the 2020 BBD percentage standard. This approach is supported by the nested nature of the standards, where BBD is a subset of the advanced biofuel and total renewable fuel standards, and compliance with all three standards is accomplished in part by using the same RINs. We believe it would not be appropriate to use updated inputs for the other standards, while simultaneously using what is now outdated data for the BBD standard alone.

Additionally, the inputs we are using in this action are quite different from the inputs used in the 2020 final rule. As discussed in Sections II.D. and III.C., the projections for gasoline and diesel fuel consumption in 2020 final rule, which were used to establish the BBD standard, are significantly different than the actual gasoline and diesel fuel consumed in 2020. Relative to the 2020 final rule, we are also using different projections of exempted gasoline and diesel fuel, as discussed in the prior section.

Finally, we note that our modification of the 2020 BBD percentage standard is not anticipated to have any significant real-world impacts. The modification results in an increase in the BBD percentage standard, which will increase the number of RINs required for compliance with this standard. However, even were we to retain the original, lower standard, we would nonetheless expect the same number of BBD RINs to be used for 2020 compliance given that BBD is nested within the advanced biofuel category and additional BBD RINs will be used to comply with that standard.

D. Percentage Standards for 2020–2022

The formulas in 40 CFR 80.1405 for the calculation of the percentage standards require the specification of a total of 14 variables comprising the renewable fuel volume requirements, projected gasoline and diesel demand for all states and territories where the RFS program applies, renewable fuels projected by EIA to be included in the gasoline and diesel demand, and projected exempt volumes of gasoline and diesel fuel. The values of all the variables used for this rule are shown in Table V.D–1 for the applicable 2020, 2021, and 2022 standards (including the 2022 supplemental standard).[196]

TABLE V.D–1—VOLUMES FOR TERMS IN CALCULATION OF THE PERCENTAGE STANDARDS [a]

Term	Description	2020	2021	2022	2022 Supplemental
RFV_{CB}	Required volume of cellulosic biofuel	0.51	0.56	0.63	0
RFV_{BBD}	Required volume of biomass-based diesel [b]	2.43	2.43	2.76	0
RFV_{AB}	Required volume of advanced biofuel	4.63	5.05	5.63	0
RFV_{RF}	Required volume of renewable fuel	17.13	18.84	20.63	0.25
G	Projected volume of gasoline	123.11	134.50	138.61	138.61
D	Projected volume of diesel	49.96	49.92	56.15	56.15
RG	Projected volume of renewables in gasoline	12.64	13.96	14.31	14.31
RD	Projected volume of renewables in diesel	2.16	2.08	2.45	2.45
GS	Projected volume of gasoline for opt-in areas	0	0	0	0
RGS	Projected volume of renewables in gasoline for opt-in areas.	0	0	0	0
DS	Projected volume of diesel for opt-in areas	0	0	0	0
RDS	Projected volume of renewables in diesel for opt-in areas.	0	0	0	0
GE	Projected volume of gasoline for exempt small refineries.	0.00	0.00	0.00	0.00
DE	Projected volume of diesel for exempt small refineries	0.00	0.00	0.00	0.00

[a] Except where otherwise noted, the required volumes (*i.e.,* the first four rows of the table) are in billion RINs. All other volumes are in billion gallons (not billion RINs).

[b] The BBD volume used in the formula represents physical gallons. The formula contains a 1.5 multiplier to convert this physical volume to ethanol-equivalent volume.

Projected volumes of gasoline and diesel, and the renewable fuels contained within them, were derived from EIA's January 2022 STEO. While we received 2022 transportation fuel demand projections from a letter sent by EIA on October 29, 2021, which included gasoline and diesel fuel demand projections from the October 2021 STEO, we believe it is more appropriate to use demand projections from the more recent January 2022 STEO. Using more up-to-date EIA data on projected gasoline and diesel fuel demand allows our assessment of 2022 supply—and calculation of percentage standards—to be as accurate as possible. For the same reason, we have used updated, actual gasoline and diesel fuel consumption estimates for 2020 and 2021 from EIA's Monthly Energy Review (MER).[197]

Using the volumes shown in Table V.D–1, we have calculated the percentage standards for 2020, 2021, and 2022 as shown in Table V.D–2.

[196] See the technical memoranda, ''Calculation of % standards for 2020,'' ''Calculation of % standards for 2021,'' and ''Calculation of % standards for 2022,'' available in the docket for this action.

[197] To determine the 49-state values for gasoline and diesel, the amount of these fuels used in Alaska is subtracted from the totals provided by EIA because petroleum-based fuels used in Alaska do not incur RFS obligations. The Alaska fractions are determined from the June 25, 2021 EIA State Energy Data System (SEDS), Energy Consumption Estimates. In addition, fuel used in ocean-going vessels is also subtracted from the total because it is excluded from the definition of transportation fuel by the statute. This volume is provided directly by EIA.

TABLE V.D–2—PERCENTAGE STANDARDS

Category	2020 (percent)	2021 (percent)	2022 (percent)
Cellulosic Biofuel	0.32	0.33	0.35
Biomass-Based Diesel	2.30	2.16	2.33
Advanced Biofuel	2.93	3.00	3.16
Renewable Fuel	10.82	11.19	11.59
Supplemental Standard	n/a	n/a	0.14

VI. Administrative Actions

A. Assessment of the Domestic Aggregate Compliance Approach

The RFS regulations specify an ''aggregate compliance'' approach for demonstrating that planted crops and crop residue from the U.S. comply with the ''renewable biomass'' requirements that address lands from which qualifying feedstocks may be harvested.[198] In the 2010 RFS2 rulemaking, EPA established a baseline number of acres for U.S. agricultural land in 2007 (the year of EISA enactment) and determined that as long as this baseline number of acres is not exceeded, it is unlikely, based on our assessment of historical trends and economic considerations, that new land outside of the 2007 baseline is being devoted to crop production. The regulations specify, therefore, that renewable fuel producers using planted crops or crop residue from the U.S. as feedstock in renewable fuel production need not undertake individual recordkeeping and reporting related to documenting that their feedstocks come from qualifying lands, unless EPA determines through one of its annual evaluations that the 2007 baseline acreage of 402 million acres agricultural land has been exceeded.

The regulations promulgated in 2010 require EPA to make an annual finding concerning whether the 2007 baseline amount of U.S. agricultural land has been exceeded in a given year. If the baseline is found to have been exceeded, then producers using U.S. planted crops and crop residue as feedstocks for renewable fuel production would be required to comply with individual recordkeeping and reporting requirements to verify that their feedstocks are renewable biomass.

Based on data provided by the USDA Farm Service Agency (FSA) and Natural Resources Conservation Service (NRCS), we have estimated that U.S. agricultural land reached approximately 382.6 million acres in 2021 and thus did not exceed the 2007 baseline acreage of 402 million acres.[199] [200]

B. Assessment of the Canadian Aggregate Compliance Approach

The RFS regulations specify a petition process through which EPA may approve the use of an aggregate compliance approach for planted crops and crop residue from foreign countries.[201] On September 29, 2011, EPA approved such a petition from the Government of Canada.[202]

The total agricultural land in Canada in 2021 is estimated at 115.8 million acres. This total agricultural land area includes 94.4 million acres of cropland and summer fallow, 11.6 million acres of pastureland and 9.8 million acres of agricultural land under conservation practices. This acreage estimate is based on the same methodology used to set the 2007 baseline acreage for Canadian agricultural land in EPA's response to Canada's petition. This acreage does not exceed the 2007 baseline acreage of 122.1 million acres.[203]

VII. Biointermediates

A. Background

In order for a fuel to be a renewable fuel under the RFS program, it must be produced from renewable biomass as defined in the statute (as well as be used to displace petroleum-based transportation fuel, heating oil, or jet fuel). The RFS regulations were designed with the assumption that renewable biomass would be converted into renewable fuel at a single facility where the connection between renewable biomass and renewable fuel would be obvious and easy to verify (*e.g.,* a renewable fuel producer purchases corn directly from several farmers in a region, crushes the corn in a mill, and then ferments the corn into ethanol, all at the same facility). The regulations therefore impose requirements on renewable fuel producers to provide EPA with information necessary to verify that their fuel was made with qualifying renewable biomass, through production processes corresponding with approved pathways, and in volumes corresponding to feedstocks used. Such information is necessary for oversight and enforcement, providing integrity and confidence in the program.

Since the RFS2 regulatory program was promulgated in 2010, however, EPA has received a number of inquiries from companies regarding the possible use of renewable biomass that has been substantially pre-processed at one facility to produce a proto-renewable fuel (referred to as a biointermediate), which would then subsequently be used at a different facility to produce renewable fuel for which RINs would be generated. For example, a number of companies have approached us with the proposed use of woody biomass or separated MSW to produce a biocrude, a pre-processed feedstock that could then be processed into renewable fuel at a crude oil refinery. In response to these requests, EPA has stated that the RFS regulations promulgated in 2010 are insufficient to generally allow RINs to

[198] 40 CFR 80.1454(g). EPA established the ''aggregate compliance'' approach in the 2010 RFS2 rule and has applied it for the U.S. in annual RFS rulemakings since then. See 75 FR 14701–04. In this final rule, we have not reexamined or reopened this policy, including the regulations at 40 CFR 80.1454(g) and 80.1457. Similarly, as further explained below, we have applied this approach for Canada since our approval of Canada's petition to use aggregate compliance in 2011. In this final rule, we have also not reexamined or reopened our decision on that petition. Any comments we received on these issues are beyond the scope of this rulemaking.

[199] For additional analysis and the underlying USDA data, see ''Assessment of Domestic Aggregate Compliance Approach 2021,'' available in the docket for this action.

[200] USDA also provided EPA with 2021 data from the discontinued Grassland Reserve Program (GRP) and Wetlands Reserve Program (WRP). Given this data, EPA estimated the total U.S. agricultural land both including and omitting the GRP and WRP acreage. In 2021, combined land under GRP and WRP totaled 2,993,177 acres. Subtracting the GRP and WRP acreage in addition to the Agriculture Conservation Easement Program acreage yields an estimate of 379.6 million total acres of U.S. agricultural land in 2021. Just subtracting the Agriculture Conservation Easement Program leads to an estimate of 382.6 million total acres of U.S. agricultural land in 2021.

[201] 40 CFR 80.1457.

[202] See ''EPA Decision on Canadian Aggregate Compliance Approach Petition'' (Docket Item No. EPA–HQ–OAR–2011–0199–0015).

[203] The data used to make this calculation can be found in ''Assessment of Canadian Aggregate Compliance Approach 2021'' located in the docket to this rule.

be generated in situations where multiple facilities are involved in the conversion of renewable biomass feedstocks into renewable fuel. The existing registration, engineering review, recordkeeping, reporting, and attest audit provisions extend only to the renewable fuel production facility under the assumption that the renewable biomass was a direct input to the facility. In the case of biointermediates, however, some steps of the fuel production process are not taking place at the renewable fuel production facility, rendering ineffective the existing oversight provisions to ensure production from renewable biomass under an EPA-approved pathway. The introduction of a biointermediate production facility without commensurate oversight provisions introduces the possibility of the same renewable biomass being claimed by multiple renewable fuel facilities, multiple RINs being generated on the same product, or RINs being generated inconsistent with an EPA-approved pathway. Additionally, without adequate oversight of the biointermediate production facility, it may be impossible to tell whether a so-called ''renewable fuel'' is in fact from renewable biomass as opposed to petroleum sources, as it is not always possible to detect a biointermediate in a finished fuel. Thus, in order to ensure that fuels produced using biointermediates comport with CAA requirements for renewable fuels, EPA is must extend its regulatory structure, including requirements for registration, engineering review recordkeeping, reporting, and attest audits, to biointermediate production, transfer, and use.

On November 16, 2016, EPA issued the proposed Renewables Enhancement and Growth Support (REGS) rule that, among other things, outlined proposed provisions to allow the use of biointermediates to produce qualifying renewable fuels under the RFS program.[204] The REGS proposal outlined a comprehensive set of compliance provisions, enforcement provisions, and oversight mechanisms for biointermediates that would have allowed biointermediates into the RFS program while maintaining oversight of the production, transfer, and use of biointermediates to make renewable fuels. A public hearing was held in Chicago, IL, on December 16, 2016, and the public comment period ended on January 17, 2017. However, EPA did not finalize the biointermediates provisions in the REGS proposal.

Since 2017, we have carefully considered public comments received in response to the proposed biointermediates provisions in the REGS proposal, as well as new information relevant to biointermediates that has become available as the industry continues to evolve. Based on those comments and our updated understanding of the renewable fuels landscape, we thought further on how best to design and implement a potential biointermediates program and decided to propose the biointermediates provisions anew.[205] While the December 2021 biointermediates proposal re-proposed many provisions of the REGS proposal, it also updated several key aspects of that proposal reflecting what we have learned since that time.

We re-proposed (*i.e.,* proposed anew) the biointermediates provisions for two main reasons. First, since the publication of the REGS proposal, we identified several areas that we wanted to modify or enhance based on new information and our updated understanding of how biointermediates may be used in the industry (based on, *e.g.,* the many new and different players as the market has continued to evolve). Second, we believed it would be useful to provide an additional opportunity for stakeholders interested in biointermediates to comment on the proposed program as a whole given the significant changes in the new proposal and to the amount of time that has passed since the REGS proposal.

In this action, we are finalizing provisions to allow for the use of biointermediates to produce qualifying renewable fuels. These provisions specify requirements that apply when renewable fuel is produced through sequential operations at more than one facility. These provisions center around the production, transfer, and use of biointermediates and the creation of new regulatory requirements related to registration, recordkeeping, and reporting for facilities producing or using a biointermediate for renewable fuel production.

B. Effect of This Action on Biointermediates Provisions Proposed in the REGS Rule

The December 2021 re-proposal of the biointermediates program superseded the previously proposed biointermediates provisions in the REGS proposal. In the December 2021 notice, we explained that we were re-proposing (*i.e.,* proposing anew) some aspects of the biointermediates provisions from the REGS proposal without changes and updating other aspects.[206] The biointermediates provisions in the December 2021 proposal thus replaced the proposed biointermediate provisions in the REGS proposal and had the effect of withdrawing that previous proposal. That is, we are now clarifying that we consider the biointermediates provisions in the 2016 REGS proposal formally withdrawn. We are not withdrawing any other portion of the REGS proposal. As we noted in the December 2021 proposal, we are not responding to any comments on the biointermediates provisions in the REGS proposal that were not resubmitted as comments on the December 2021 proposal; comments on the REGS proposal that were not resubmitted are outside the scope of this action.[207]

C. Biointermediates Regulatory Provisions

We are finalizing provisions allowing the use of biointermediates because we believe that the use of biointermediates to produce renewable fuels will be a reasonable and positive development for future growth in production, particularly of cellulosic and advanced biofuels. At the same time, a robust set of regulatory provisions for the use of biointermediates is needed in order to ensure that renewable fuels produced from biointermediates meet the statutory requirements to be produced from renewable biomass and via processes that meet the necessary greenhouse gas reduction thresholds.[208] Additionally, we need to be able to oversee the validity of RINs generated in situations where feedstocks are allowed to be processed at multiple facilities, and where partially processed feedstocks, which may appear very similar to or have the potential to actually qualify as renewable fuels themselves, are transferred between parties. In many cases, biointermediates are processed to a point where they can be used directly as fuel or as a feedstock to produce a different renewable fuel with further processing. The fact that a biointermediate can be both a potential renewable fuel and a feedstock creates opportunities for the multiple-generation of RINs for the same volume. The biointermediates program imposes regulatory requirements designed to prevent such multiple counting. Similarly, we need to ensure that non-qualifying feedstocks are not added to

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

[205] See 86 FR 72465–72474 (December 21, 2021).

[206] See 86 FR 72465 (December 21, 2021).

[207] See 86 FR 74266 (December 21, 2021).

[208] See CAA Section 211(o)(1).

biointermediates during transit and counted as qualifying for subsequent RIN generation. Finally, we must also ensure that renewable fuels produced from biointermediates are produced under EPA-approved pathways to ensure that applicable GHG threshold reductions are met. As the history of the RFS program has demonstrated, the value of RINs provides considerable incentive for fraudulent activity, and therefore it is important for the integrity of the program that mechanisms be in place to verify their validity.[209]

The finalized biointermediate provisions are designed to ensure that biointermediates are produced, transferred, and used in a manner consistent with Clean Air Act and EPA regulatory requirements. The registration, reporting, and recordkeeping requirements for biointermediate producers discussed in Section VII.C.7 will demonstrate that a biointermediate producer can make qualifying biointermediate under an approved pathway, and the biointermediate-related modifications to the renewable fuel producer's registration, reporting, and recordkeeping requirements will help ensure that biointermediates are used consistent with approved pathways to make qualifying renewable fuel. The transfer limits discussed in Section VII.C.4 coupled with the product transfer document requirements discussed in Section VII.C.6 will allow the effective tracking of biointermediates from the point the biointermediate is produced to the point the biointermediate is used to help ensure that biointermediates are not contaminated or multiple-counted for RIN generation during transport.

We are also finalizing independent third-party oversight measures to allow verification that biointermediates are produced, transferred, and used appropriately. As discussed in Section VII.C.5, biointermediate producers and renewable fuels must participate in the RFS Quality Assurance Program (QAP), which will verify production of both the biointermediate and resultant renewable fuels. As discussed in Section VII.C.8, biointermediate producers and renewable fuel producers will also have to undergo an annual attest engagement audit, which verifies that registration, reporting, and recordkeeping information is consistent with EPA's regulatory requirements for biointermediate production, transfer, and use.

As discussed in Section VII.C.9, we are also finalizing provisions that address situations where a biointermediate is improperly produced. These provisions establish which parties are liable when an improperly produced biointermediate is identified and how any RINs generated from fuel produced from the improperly produced biointermediate will be treated. We believe these provisions will provide strong incentives for biointermediate producers and renewable fuel producers to produce, transfer, and use biointermediates in a manner consistent with Clean Air Act and EPA regulatory requirements.

1. General Biointermediates Program Structure

We are finalizing the general program structure as proposed with modifications based on comments. Under today's biointermediates program, approved pathways in Table 1 to 40 CFR 80.1426 (hereafter ''Table 1'') will continue to identify the renewable biomass feedstocks and processes that are acceptable to make renewable fuel for the respective pathways; however, with the finalization of the biointermediates program, the processes specified can now be conducted across two different facilities.[210] Since biointermediates are altered from the feedstocks listed in Table 1, the regulations require renewable fuel producers to have sufficient information from the biointermediate producer to verify that the biointermediate is made from the renewable biomass feedstock listed in the approved pathway being used by the renewable fuel producer.[211] Similarly, the biointermediate producer must have sufficient documentation from the feedstock supplier(s) to demonstrate that the feedstock used to produce the biointermediate was renewable biomass. The regulations further require the renewable fuel producer to keep records and report to EPA information sufficient to verify that the biointermediate used to produce the renewable fuel is produced from renewable biomass consistent with the EPA-approved pathway. The biointermediate producer must also independently keep records and report to EPA information to demonstrate that biointermediates were produced from qualifying renewable biomass feedstocks under EPA-approved pathways.[212]

We are not changing the current system in which, with very few exceptions (*i.e.,* RINs generated for biogas to renewable CNG, renewable LNG, or renewable electricity), only the renewable fuel producer is permitted to generate RINs. This means that the party that produces renewable fuel from a biointermediate generates RINs, rather than the producer of the biointermediate. This approach is the easiest to both implement and enforce, and will involve no disruption from current practices. If we were to allow for different points of RIN generation, it would add unnecessary complexity and difficulty into the program, and introduce an opportunity for fraudulent multiple-generation of RINs for the same volume of fuel. While renewable fuel producers are not precluded from entering into contracts with biointermediate producers that could provide for transfer of some or all of the RIN value to the biointermediate producer, under the biointermediates provisions only the renewable fuel producer will be able to generate and assign the RIN within the EPA Moderated Transaction System (EMTS).

We discuss specific provisions related to the biointermediate provisions being finalized in this document below. In general, we received many public comments that were supportive of our general approach to allow to produce renewable fuels using biointermediates. We summarize and respond to all comments received relating to biointermediates in Section 10 of the RTC document.

2. Implementation Dates

We are finalizing our proposal that the biointermediates provisions will be implemented starting 60 days after the publication of the final rule in the **Federal Register**. Recognizing the amount of time that has passed since EPA first identified the need to revise the regulations in order to allow the use of biointermediates and stakeholders' continued interest in such use, we are beginning program implementation as soon as possible. As explained at proposal, the start date of the program is necessarily linked to the scope and complexity of the biointermediates

[209] We note that there has been a long history of RIN fraud in the RFS program. We detail several of the major RIN fraud civil enforcement cases on our website, available at *https://www.epa.gov/enforcement/civil-enforcement-renewable-fuel-standard-program.*

[210] We discuss lifecycle and pathway considerations for the use of biointermediates in Section VII.D.2. This section also addresses the interplay between the biointermediates program and facility-specific pathways under 40 CFR 80.1416.

[211] We discuss the product transfer document requirements for biointermediates in Section VII.C.6.

[212] We discuss the registration, reporting, and recordkeeping requirements for biointermediate producers and renewable fuel producers in Section VII.C.7.

provisions being finalized.[213] In general, public comments supported our proposal to begin implementing the biointermediate provisions as soon as possible. We also received a number of public comments suggesting a multitude of changes, many of which would have significantly increased the scope and/or complexity of the biointermediates program and thus the amount of time EPA would need to begin implementing it. While we address these suggestions individually in this preamble or the RTC document, we note that we have finalized a program that we can implement quickly and effectively so that parties can begin producing biointermediates as soon as practical.

3. Definition of Biointermediate

a. General Approach to Defining Biointermediates

We are finalizing as proposed our general approach to defining biointermediates that are allowed in the program.[214] We explained in the December 2021 proposal that the broad definition of biointermediate in the REGS proposal would have allowed any product that met that definition to be used as a biointermediate. We also noted that, based on comments received on the REGS proposal and subsequent information and experience, the one-size-fits-all regulatory framework in the REGS proposal would not actually work in all of the potential biointermediates situations anticipated. Therefore, in December 2021 we instead proposed to specifically identify permissible biointermediates by adding individual types to the definition of biointermediates. By allowing only those particular types of biointermediates for which we have adequate information and confidence in our ability to effectively oversee their production, distribution, and use, we can ensure that RINs are generated only for fuels produced from biointermediates that in turn are produced from renewable biomass under EPA-approved pathways. We also noted at proposal that, under this approach, in order for us to allow a new biointermediate into the program we would need to modify the regulatory definition of biointermediates via rulemaking. Recognizing that undergoing a rulemaking to add new biointermediates into the program could take time, we sought comment on whether we should allow for an administrative process to approve biointermediates outside of a rulemaking.

Several commenters suggested that we either revert to the proposed biointermediates definition in the REGS proposal or allow for an administrative process akin to the pathway petition process for the approval of new biointermediates.[215] These commenters suggested that a rulemaking process would take too long to allow for EPA to approve new biointermediates. They also noted that they believed that the proposed regulatory provisions provided sufficient safeguards to allow a broader range of biointermediates than the proposed definition would allow. Other commenters supported our general approach to defining biointermediates. These commenters noted that the approach balanced the allowing of needed flexibility in the RFS program to allow for renewable fuels to be produced at multiple facilities with ensuring proper oversight of a more complex production and distribution chain.

While we appreciate the desire of the commenters for greater flexibility and responsiveness, their comments did not assuage our implementation and oversight concerns. Each biointermediate has particular compliance and enforcement considerations, including how to track the biointermediate back to renewable biomass, how a biointermediate may be processed with other feedstocks to produce renewable fuel, and how a biointermediate fits within existing pathways. Furthermore, commenters failed to specify how the proposed biointermediate provisions could address our implementation and oversight concerns for any and all future potential biointermediates. While we have sufficient information on and understanding of the specific biointermediates that we proposed for inclusion in the December 2021 proposal and those additional biointermediates that we are finalizing as discussed in Section VII.C.3.c, it is difficult to anticipate whether the biointermediates program will be effective for biointermediates with as-yet unknown production, distribution, and use considerations. As such, we continue to believe that the most reasonable approach is a biointermediates program that allows us to consider and, if necessary, address these challenges on a biointermediate-by-biointermediate basis. We are thus finalizing as proposed our proposal to define the scope of the program by specifying the particular biointermediates that will be eligible to produce qualifying renewable fuels. In other words, under this approach, we are defining the specific situations in which it would be permitted to process feedstocks into renewable fuels at multiple facilities. Also under this approach, if we do not list a ''biointermediate'' explicitly in the definition of biointermediate, that purported ''biointermediate'' is not lawful for use in making renewable fuels under the RFS program. In order for a new biointermediate to be brought into the program under this approach, we will amend the regulations via notice-and-comment rulemaking to add the new biointermediate to the list, at which time we will also make any other necessary regulatory changes needed to provide proper oversight for its potentially unique circumstances.

We appreciate commenters concerned that adding new biointermediates via notice-and-comment rulemaking will take time; however, we note that we will likely continue to periodically issue rulemakings related to the RFS program to set volume requirements, promulgate new pathways, and technically amend the RFS regulatory provisions. These ongoing regulatory activities will provide ample opportunities to add new biointermediates to the program with any other necessary regulatory changes on a regular basis.

As explained at proposal, our approach to defining biointermediates is not intended to affect pre-processing steps for feedstocks in Table 1 that are limited to form changes. We recognize that it has been common practice for some feedstocks listed in Table 1 to 40 CFR 80.1426 to be pre-processed at separate facilities before they are delivered to a renewable fuel production facility and used to produce renewable fuel. We do not intend to disrupt this practice. However, in order to assure that we can verify that renewable fuel was made with qualifying renewable biomass, through production processes corresponding with approved pathways, we need to impose limits on the type of pre-processing of qualifying feedstocks that will be allowed without becoming subject to the biointermediate requirements. We believe we have appropriately balanced these interests by allowing the pre-processing of feedstocks listed in approved pathways at facilities other than the renewable fuel production facility, but only if the pre-processing results only in a form change such as chopping, crushing, grinding, pelletizing, filtering, compacting/compression, centrifuging,

[213] See 86 FR 72466 (December 21, 2021).

[214] We are finalizing the definition of biointermediate in 40 CFR 80.1401.

[215] The pathway petition process is described in 40 CFR 80.1416.

degumming, dewatering/drying, melting, or the addition of water to produce a slurry. Unlike other processes that would lead to a biointermediate, even though these form-change processes are conducted at an upstream location, the feedstock can reasonably be expected to continue to be derived from renewable biomass, be used to produce renewable fuel under an EPA-approved pathway, and EPA can be reasonably expected to be able to verify it.

In the NPRM, we sought comment on whether we should expand or narrow the types of pre-processing that should be allowed for feedstocks at facilities other than the renewable fuel production facilities that will not result in a biointermediate. Several commenters noted that we should allow for additional types of pre-processing steps. Based on these comments, we are adding the bleaching and degumming of vegetable oils as non-prohibited pre-processing steps. These pre-processing steps are consistent with our stated intent in the proposal to avoid disrupting existing renewable fuel production processes where renewable biomass is not substantially altered in a manner that would make us question our ability to oversee the program. We have not included pre-processing steps that raise concerns over our ability to ensure that a biointermediate was produced from renewable biomass. Allowing such processes would require additional regulatory oversight, such as the biointermediate provisions being finalized in this document.

To implement this approach, we are finalizing a prohibition on the production of a renewable fuel at more than one facility unless the renewable fuel production facility is using a biointermediate as defined in 40 CFR 80.1401 or is using feedstocks identified in Table 1 to 40 CFR 80.1426 that were pre-processed at a different facility and the pre-processing was limited to chopping, crushing, grinding, pelletizing, filtering, compacting, compression, centrifuging, degumming, dewatering/drying, melting, or the addition of water to produce a slurry. Our intent with this prohibition is to make clear the specific situations where feedstocks will be allowed to be processed at multiple facilities without being subject to the biointermediates provisions.

b. Biocrude, Free Fatty Acid (FFA) Feedstock, and Undenatured Ethanol

In the NPRM, we proposed an initial list of biointermediates that included biocrude, FFA feedstock, and undenatured ethanol. We proposed these three biointermediates because we believed they could effectively be accommodated by the proposed biointermediates provisions. We noted that these biointermediates are likely to be available in measurable quantities in the near future and that our proposed biointermediate regulations could ensure proper compliance oversight and enforcement.[216] We also noted that since parties exist that are relatively close to or already capable of producing renewable fuels from biocrude, FFA feedstock, and undenatured ethanol, it is relatively clear to us how they will do so and what the compliance oversight issues might be with these biointermediates. Because we had sufficient knowledge and understanding to be confident that our biointermediates regulations can ensure proper compliance and oversight, proposed that it would be appropriate to allow the use of these biointermediates to produce renewable fuel under a biointermediates program.

All commenters that spoke to the issue of inclusion of biocrude, FFA feedstock, and undenatured ethanol supported the inclusion of these biointermediates into the program. As supported by commenters, we are finalizing the inclusion of biocrude, FFA feedstock, and undenatured ethanol.[217]

To effectuate the inclusion of these biointermediates in the definition of the program, we proposed specific definitions of biocrude, FFA feedstock, and undenatured ethanol. We developed these proposed definitions based on discussions we had with parties that were interested in producing these biointermediates prior to the December 2021 proposal. We received several comments suggesting clarifications for each proposed definition.

Regarding biocrude, in the NPRM we proposed to define biocrude as ''a liquid biointermediate produced from renewable biomass through gasification or pyrolysis at a biointermediate production facility to be used to produce renewable fuel at a refinery as defined in 40 CFR 1090.80.'' [218] We proposed to limit biocrude to these two production processes because we believed that gasification or pyrolysis of qualifying renewable biomass to make biocrude was consistent with the existing EPA-approved pathways, specifically Row M of Table 1 to 40 CFR 80.1426. We received a number of comments suggesting that we allow for additional processes for the production of biocrude. Some commenters noted that additional processes are already covered by current pathways listed in Table 1 of 80.1426 (*e.g.,* thermo-catalytic hydrodeoxygenation listed in Row M). Others asked whether certain types of pyrolysis (*e.g.,* hydrothermal liquefaction) would be covered under the proposed definition. Finally, some commenters noted that there are a number of potential processing technologies to produce biocrude that EPA should consider adding to the proposed biocrude definition. We appreciate commenters highlighting that biointermediate producers could use other processes to make biointermediates consistent with our proposed approach. Therefore, we have modified the definition of biocrude to clarify that it must be produced from a process already covered under pathway M under Table 1 of 80.1426 (*e.g.,* pyrolysis or gasification), or a process identified in an approved pathway under 40 CFR 80.1416 for the production of renewable fuel produced from biocrude.

Due to the significant amount of energy needed to process renewable biomass, it is important that only processes we have determined are consistent with meeting the applicable GHG reduction thresholds are used to produce biocrude. We are therefore structuring the biocrude definition to clearly limit biocrude production to processes covered by an EPA-approved pathway that can account for the GHG reduction, while reducing barriers for processes that can demonstrate they meet the GHG reduction.

We also received several comments on the proposed FFA feedstock definition, and we are finalizing some suggested changes to that definition based on comments. In the NPRM, we proposed to define FFA feedstock as ''a biointermediate that is composed of at least 80 percent free fatty acids that are separated from renewable biomass.'' [219] We also proposed to include a provision that FFA feedstock must not include any free fatty acids from the refining of crude palm oil. We explained that this proposed definition is consistent with the lifecycle analysis that supported the proposed stand-alone esterification pathway in the 2020 RVO rule,[220] and that it would ensure that only those FFA

[216] See 86 FR 72466–72469 (December 21, 2021).

[217] The definitions of each of specific biointermediate allowed under the program are being promulgated at 40 CFR 80.1401.

[218] See 86 FR 72475 (December 21, 2021).

[219] See 86 FR 72485 (December 21, 2021).

[220] See 84 FR 36801 (July 29, 2019) for the proposed esterification pathway and 86 FR 72473–72474 (December 21, 2021) for a discussion of FFA feedstocks and the proposed esterification pathway.

feedstocks that would fall under currently approved pathways would be used to produce renewable fuels.

We are finalizing changes to the FFA feedstock definition in two areas based on suggestions from public commenters. First, several commenters suggested that the 80 percent requirement was too restrictive and may limit the use of many FFA feedstocks that could currently be produced and used in the market. These commenters suggested that we reduce the limit to 50 or 60 percent. As explained in the RTC document, we believe these comments have merit and are therefore finalizing that FFA feedstock must contain at least 50 percent free fatty acids.

Second, one commenter suggested that we specify a test method to measure FFA concentration in FFA feedstock as part of the definition. While we generally agree with the idea of a biointermediate producer specifying how they intend to measure FFA concentration, we want to ensure that we are accommodating the number of test methods that could be used to measure FFA concentration. Therefore, in response to this suggestion, we are finalizing a requirement for biointermediate producers that make FFA feedstock to submit as part of registration a description of the method they will use to determine FFA concentration in FFA feedstock. In acting on registrations, EPA will either approve use of the proposed measurement method or require an alternate method.

Regarding undenatured ethanol, we proposed to define the specific biointermediate as ''ethanol that has not been denatured as required in 27 CFR parts 19 through 21.'' We received a comment suggesting that we expand the definition of undenatured ethanol to include specially denatured alcohols under the Department of Treasury's Alcohol and Tobacco Tax and Trade Bureau (TTB) requirements at 27 CFR parts 20 and 21. Specially denatured alcohols (SDAs) are alcohols that are denatured to make them unfit for human consumption, but not in a manner that qualifies them as denatured fuel ethanol under EPA's fuel quality regulations at 40 CFR part 1090 or industry specifications at ASTM International (ASTM) D4806. The commenter suggested that these alcohols could be used to make renewable fuel and that TTB requires specific tracking of SDAs to ensure that they are not used for human consumption. We believe, as commenters suggest, that SDAs should qualify as a biointermediate. We recognize that parties that may wish to produce ethanol for use as a biointermediate must comport with TTB requirements for the distribution of the ethanol to renewable fuel production facilities, and those parties may wish to utilize the provisions of 27 CFR parts 20 and 21 to create SDAs instead of either obtaining waivers to TTB requirements to distribute undenatured ethanol or denaturing the ethanol to create denatured fuel ethanol (which can render the ethanol no longer suitable for use to produce a renewable fuel). We did not intend to exclude SDAs from the program and have expanded the definition of undenatured ethanol to include SDAs as suggested. However, as we discuss in more detail in the RTC document, TTB requirements are not a substitute for the biointermediates provisions as TTB's provisions are not intended to demonstrate that renewable fuels were produced consistent with CAA and EPA regulatory requirements.

We also note that we received a number of comments asking to clarify the treatment of foreign produced undenatured ethanol. We discuss this issue in Section VII.C.9.

c. Additional Allowed Biointermediates

Recognizing that there may be additional potential biointermediates that are consistent with our criteria for inclusion in the program at this time (*i.e.,* in this rulemaking), we sought comment on other potential biointermediates for inclusion in the final rule. In the NPRM, we noted that we would consider adding a potential biointermediate in the final rulemaking if its production, transfer, and use to produce renewable fuel would be sufficiently and appropriately covered by the regulatory framework we were proposing. Specifically, we noted our intention to base our consideration of potential additional biointermediates on whether the proposed biointermediates provisions would adequately limit opportunities to generate fraudulent RINs through multiple-counting, whether we could ascertain that feedstocks used to produce the potential biointermediate qualify as renewable biomass using an EPA-approved pathway, and whether there are any unique considerations for the potential biointermediate that would require further regulatory requirements to ensure that generated RINs are valid. We asked that commenters suggesting a potential additional biointermediate specifically address these criteria in their comments. We also asked commenters to provide information describing the type of potential biointermediate, the potential volume of renewable fuel(s) that could be produced from it, and the timeline for its development and ultimate production. Finally, we noted that we intended to finalize only those potential biointermediates that meet the criteria described above: would be effectively overseen under the proposed compliance and oversight provisions, have a low likelihood of being susceptible to generation of fraudulent RINs, can be verified as being produced from renewable biomass, and would not require further regulatory provisions.

We received comments suggesting several additional biointermediates for inclusion in the final rule. We note that many commenters did not supply adequate information for us to determine whether it would be appropriate, based on our criteria, to include a potential biointermediate in the program. In such cases, given our uncertainty regarding whether the regulatory provisions would be sufficient to oversee production and use of the biointermediate, we have not added the potential biointermediate to the list at this time. We discuss each of these potential biointermediates specifically in the RTC document.

However, some commenters did provide enough information for us to determine that we can appropriately include the potential biointermediate under the biointermediates provisions. In these cases, commenters adequately described the potential biointermediate and described how the proposed biointermediate provisions would be sufficient to mitigate the generation of fraudulent RINs. Based on the suggestions and descriptions from comments, we are finalizing the addition of five additional biointermediates in the final rulemaking. Specifically, we are adding the following to the biointermediates definition in this action: biomass-based sugars, digestate, glycerin, biodiesel distillate bottoms, and soapstock. We are also promulgating definitions, largely based commenters suggestions, for each of these specific biointermediates.[221] We note that EPA identified all of these biointermediates in the proposal as potentials for inclusion,[222] and we discuss these biointermediates and associated comments in the RTC document.

We received many comments on one particular potential biointermediate: biogas. Commenters suggested that we

[221] The definitions for biomass-based sugars, digestate, glycerin, biodiesel distillate bottoms, and soapstock will be included with other definitions specified in 40 CFR 80.1401.

[222] See ''Potential Biointermediates Memo'' located in the docket for this action, docket ID EPA–HQ–OAR–2021–0324–0271.

should allow biogas transported via commercial pipeline, sometimes called renewable natural gas or RNG, to be used as a biointermediate in the production of renewable hydrogen, renewable methanol, and a variety of other renewable fuels. Commenters also noted that many of the proposed biointermediate provisions would likely need to be revised in order for biogas to be used as a biointermediate. We are not adding biogas to the definition of biointermediate in this action. While we acknowledge the opportunities for additional advanced and cellulosic biofuels that allowing the use of biogas or RNG as a biointermediate would provide, we also note, as some commenters highlighted, that the biointermediate provisions currently being finalized are not appropriate for biogas used as a biointermediate, especially when that biogas or RNG is distributed via commercial pipeline. We neither developed nor proposed provisions that would be necessary to address the unique circumstances associated with biogas as a biointermediate. We intend to address the use of biogas as a biointermediate when we address issues related to the use of biogas to make renewable electricity (so-called ''eRINs'') in a future action.

4. Limits on Biointermediate Transfers

We are finalizing as proposed the requirement that the processing of a biointermediate must only occur at a single facility before the biointermediate is transported to a renewable fuel production facility.[223] Under this approach, only two parties would be involved in the transformation of a renewable biomass feedstock under an approved pathway into renewable fuel. While it is possible that in the future the production of certain biointermediates may require processing at multiple facilities, most if not all of the inquiries regarding biointermediates that we have received thus far have only involved two facilities: one to produce the biointermediate and another to turn it into renewable fuel. Additionally, while it is relatively straightforward for EPA to track biointermediates and enforce the applicable requirements when there is one biointermediate producer, significant implementation and enforcement concerns arise when more than one facility is involved in the production of a given biointermediate, as each extra production step adds another layer of complexity and potential for fraud to occur. Thus, the final regulations do not allow the production of biointermediates to occur at multiple facilities.

We are also finalizing as proposed the limit restricting the transfer of biointermediates from a biointermediate production facility to a single renewable fuel production facility, while renewable fuel production facilities may receive biointermediates from multiple biointermediate production facilities.[224] This limitation will significantly simplify tracking of biointermediates and therefore enable EPA to oversee RIN generation for renewable fuels produced from biointermediates. While many commenters asserted that the proposed limit would make biointermediate transfer and use more difficult, without this restriction on biointermediates transfers the use of non-qualifying feedstocks would be difficult to detect and therefore likely to occur. Additionally, we do not believe this limitation will unreasonably limit the production and use of biointermediates. In order for EPA and independent third parties to effectively audit whether qualifying biointermediates (*i.e.,* biointermediates produced from qualifying renewable biomass under an EPA-approved pathway) in the exact amounts (*i.e.,* the biointermediate did not have a RIN generated for it as a renewable fuel or have non-qualifying feedstocks added to the biointermediate during transport) were used in producing renewable fuel, all facilities that produced and used biointermediates as well as all the locations where biointermediates were distributed and stored need to be systematically audited. If there were no limits on biointermediates transfers, this could be potentially hundreds of facilities and locations located throughout the world. Such oversight would be unrealistic for EPA or independent third parties to accomplish, which would leave open opportunities for the generation of invalid or fraudulent RINs and undermine the use of real renewable fuels. If we were to allow biointermediate production facilities to transfer product to multiple renewable fuel production facilities and renewable fuel production facilities to also receive product from multiple biointermediate producers, some parties could take advantage of the increased complexity in tracking relationships and batches to use non-qualifying feedstocks to make renewable fuel or generate fraudulent RINs through multiple layers of multiple-counting.

We also note that allowing a many-to-many relationship would require both a significant investment in EPA tracking capability and a significant overhaul of the RFS quality assurance program (QAP). Both of these efforts would significantly delay the implementation of a biointermediates program. As such, we have finalized the biointermediates transfer limits as a means of quickly implementing the program while balancing our ability to ensure proper oversight. We may reconsider the limits on biointermediate transfers in the future as we gain more experience with biointermediates.

Relatedly, we are also finalizing as proposed registration provisions that require the biointermediate producer to designate as part of their registration information submitted to EPA the receiving renewable fuel production facility to which biointermediate will be transferred. Recognizing that biointermediate producers may need to periodically change the receiving renewable fuel production facility, we are allowing biointermediate producers to change their designated renewable fuel production facility no more than one time per calendar year unless, in its sole discretion, EPA determines it is appropriate to allow the biointermediate producer to change its designated renewable fuel production facility more than once in a year. An example of a situation where EPA would consider it appropriate is the closure of the receiving renewable fuel production facility. This once-a-year limitation is necessary to implement the many-to-one transfer limitation. Without such a limitation, biointermediate producers could redesignate their associated renewable fuel production facility an unlimited number of times which would undermine the purpose of the many-to-one limit (*i.e.,* establishing a set of provisions that allows us to maintain oversight).

We do not believe this registration requirement imposes an undue practical burden on transfers of biointermediates. We note that under the biointermediates program being finalized in this action, the newly designated receiving renewable fuel production facility must be registered to use the biointermediate, which in turn requires an engineering review by a professional engineer (PE) to determine that the renewable fuel

[223] The regulatory requirements pertaining to limits on biointermediate transfers are being promulgated at 40 CFR 80.1476(g).

[224] Informally, this type of relationship is called a ''many-to-one'' relationship. Under this approach, many biointermediate production facilities can only transfer biointermediates to a single renewable fuel production facility. In contrast, under a ''many-to-many'' relationship biointermediate production facilities could transfer biointermediates to many renewable fuel production facilities, and renewable fuel production facilities could receive biointermediates from many biointermediate production facilities.

production facility can use the biointermediate under an approved pathway. This process can take several months to arrange for a PE to conduct the engineering review, submit the registration update to EPA, and have it ultimately accepted by EPA. Also, as discussed in Section VII.C.5, both the biointermediate and renewable fuel producers must have their respective facilities audited under the QAP program, which also contributes to the amount of time needed to change the designated receiving renewable fuel production facility. Consequently, because of the time to conduct new engineering reviews and have new QAPs approved by EPA, limiting biointermediate producers to changing the designated receiving renewable fuel producer once per calendar year does not in fact impose any additional restriction.

These biointermediate transfer provisions will both enable the production and use of biointermediates and enhance our ability to provide compliance and enforcement oversight. Based on our discussions with parties interested in the production and use of biointermediates, we believe that in most cases parties intend for a single renewable fuel production facility to receive all biointermediate produced from a biointermediate production facility. The biointermediates transfer provisions are also designed to be consistent with our understanding of how biointermediate transfers would be contracted by biointermediate and renewable fuel productions and how renewable fuel production facilities would be designed to accommodate the use of biointermediates. We intend to review the limits on biointermediate transfers in the future as we gain more experience with the biointermediates program.

5. RFS Quality Assurance Program (QAP) and Biointermediates

We are finalizing revisions to the RFS QAP to expand coverage to biointermediate production and use as proposed.[225] The existing RFS QAP provides for auditing of renewable fuel production facilities by independent third-party auditors who review feedstock elements, process elements, and RIN generation elements to determine if renewable fuel production is consistent with EPA requirements. These independent third-party auditors verify the RINs generated from renewable fuel production facilities that participate in QAP. Under this action, we are finalizing our proposed requirement for both biointermediate producers and renewable fuel producers that use biointermediates to participate in the RFS QAP program. Independent third-party auditors will review feedstock and process elements for biointermediate production facilities to verify, among other things, that biointermediates are produced using renewable biomass and via processes consistent with the applicable renewable fuel pathway(s). Mandatory participation of both the biointermediate and renewable fuel producers will help ensure that RINs generated from biointermediates are valid, which in turn will allow EPA to balance the competing priorities of allowing the timely use of biointermediates for the production of renewable fuel in the near term and establishing a program that we can effectively oversee for the long term.

Additionally, in order for a renewable fuel producer to generate a Q–RIN, we are finalizing a requirement that both the biointermediate producer and the renewable fuel producer must have in place an EPA-approved pathway-specific QAP. This is necessary to provide the level of assurance that is expected from the RFS QAP. If we allowed the renewable fuel producer to generate Q–RINs without the biointermediate producer's information being verified, it could undermine the level of compliance assurance provided by Q–RINs. Furthermore, allowing the production and use of biointermediates to go unverified would provide increased opportunity for the use of unapproved feedstocks and the generation of fraudulent RINs through multiple-counting. Having an independent third-party auditor verify the production of both the biointermediate and the renewable fuel is necessary to help oversee the added complexity that results from having renewable fuel processing occur at two different facilities. Finally, since the focus of the QAP system is the validity of RINs and both the biointermediate producer and the renewable fuel producer must follow approved pathway processes for RINs to be valid, it would not be appropriate to allow the generation of Q–RINs without a QAP for the biointermediate producer.

Further, we are finalizing a requirement that the biointermediate producer and renewable fuel producer must use the same QAP vendor to ensure consistent oversight of the two facilities. We believe that the same auditor should verify both the biointermediate and renewable fuel production facility to ensure that the corresponding records, product transfer documents, and reported information agree between the two facilities. If we allowed separate auditors to verify the biointermediate and renewable fuel production facilities, the auditors may not be able to effectively implement their QAP and track biointermediate production, distribution, and use. We note that we are finalizing regulatory text that makes it clear our intent to require that the same independent auditor verify both the biointermediate producer and renewable fuel producer which was missing from the proposed regulations in the NPRM.[226]

6. Product Transfer Documents (PTDs)

We are finalizing, with modifications relative to proposal, PTD requirements for the transfer of custody and title of biointermediates from the biointermediate production facility to the renewable fuel production facility.[227] [228] PTD requirements are needed to provide renewable fuel producers using biointermediates the information they need to ensure the validity of RINs they generate. Under the biointermediates requirements being finalized in this action, the biointermediate producer must transfer to the renewable fuel producer PTDs for each batch of biointermediate. Since renewable fuel producers must have information about the feedstocks and processes used to produce biointermediates in order to ensure that they are generating valid RINs, the biointermediate PTD regulations require parties to transfer more information than is included in typical PTD requirements in the fuels regulations. The PTD must contain information

[225] The RFS QAP provisions are located throughout 40 CFR part 80, subpart M. In this action, we are modifying the regulatory RFS QAP regulatory provisions at 40 CFR 80.1469, 80.1471, and 80.1471 as well as creating a new section at 40 CFR 80.1477 that describes the verification of biointermediates specifically.

[226] See 86 FR 72470 (December 21, 2021) (''Further, we are proposing that the biointermediate producer and renewable fuel producer must use the same QAP vendor to ensure consistent oversight of the two facilities.'').

[227] PTD requirements for biointermediates, renewable fuels, and RINs under the RFS program are described at 40 CFR 80.1453.

[228] A transfer of title for a biointermediate is when one party (the transferer) transfers ownership of a batch or a portion of a batch of biointermediate to another party (the transferee). A transfer of custody for a biointermediate is when the transferer transfers physical custody of the batch or portion of a batch to the transferee without transferring ownership of the biointermediate. Such transfers of custody are common in the distribution of feedstocks, blendstocks, and fuels whereby those products are distributed via pipelines, railcars, and trucks operated by parties that never take title to the product being transferred. We anticipate that the distribution of biointermediates will be the same as other products covered by EPA's fuel quality and RFS programs.

related to the feedstock, volume, and processes used in the production of the biointermediate. Additionally, to the extent that any portion of the biointermediate is not derived from renewable biomass, biointermediate producers are required to identify the renewable content (expressed by weight or volume percent as appropriate) of the biointermediate that can be used to make renewable fuel for which RINs could be generated. If applicable, biointermediate producers must also convey information regarding the cellulosic content (by weight or volume percent as appropriate) of the biointermediate. Information on these breakdowns, if applicable, must be transferred via the PTD to the renewable fuel producer so it can properly generate RINs for renewable fuel produced from the biointermediate. In all situations where a renewable fuel producer is required to utilize information related to the production of a biointermediate under 40 CFR 80.1426(f) to generate RINs, the biointermediate producer must transfer with PTDs records describing applicable calculations to the renewable fuel producer. For example, a biointermediate producer must transfer records that include all of the inputs and assumptions required to calculate the feedstock energy according to equations in 40 CFR 80.1426(f)(3)–(4), including the mass of the feedstock or biointermediate (M), average moisture content of the feedstock or biointermediate (m), converted fraction (CF), and the energy content of the feedstock or biointermediate components converted into renewable fuel (E). Copies of these records must be transferred on each occasion when any party transfers title of a biointermediate.

Several commenters noted that including PTD requirements for transfers of custody and title for biointermediate transfers would be a departure from similar PTD requirements for renewable fuels, which only require PTDs to accompany transfers of title. Other commenters contended that it is unnecessary to include information and copies of records related to the production of the biointermediate for each party that takes custody of the biointermediates, as it is only the renewable fuel producer that ultimately needs the records demonstrating that the biointermediate was produced from renewable biomass under an EPA-approved pathway. Other commenters argued even further that no PTD requirements were necessary at all for transfers of biointermediates as such information would be documented using customary business practices that include necessary information on bills of lading.

While we acknowledge commenters' concerns about the potential burdens of requiring PTD for biointermediates transfers of custody as well as title, PTDs for custodial transfers of biointermediates are necessary to address our concerns over potential multiple-counting of biointermediates for RIN generation and contamination of biointermediates with non-qualifying feedstocks during distribution. PTDs accompanying transfers of custody of products establish a paper trail that can be verified by third-party auditors and EPA. This is particularly important in the case of biointermediates because, unlike most other feedstocks covered under the RFS program (*e.g.,* corn starch), biointermediates can often be used as both a renewable fuel and a feedstock. This potential dual use significantly increases the opportunities for multiple-counting of a single volume as both a biointermediate and a renewable fuel, and for associated RIN fraud.

However, we recognize that much of the information that we proposed to require be transferred along with each custody transfer of a batch of biointermediate is only necessary for the renewable fuel producer. Therefore, we are requiring that only the basic identifying information for the batch of biointermediate be included on PTDs for transfers of custody.[229] We note that this approach is consistent with how we handle transfers of custody for gasoline and diesel fuel under 40 CFR part 1090, which also applies to the transfer of most renewable fuels, such as denatured ethanol and biodiesel, under the RFS program.[230] We believe, as some commenters suggested, that basic identifying information for batches of biointermediates is likely already included on bills of lading[231] for the distribution of biointermediates and similar products; as such, requiring this information be provided via a PTD for custody transfers will not be unnecessarily burdensome. However, it is important to also require this information via PTDs for custody transfers so that parties will keep such information in a standardized format for third-party and EPA auditing. We also note, that without regulatory PTD requirements, parties would likely not maintain PTDs for periods of time consistent with the record retention periods under the RFS program.[232]

We also received comments on our proposed PTD requirements that the information we proposed to require for transfers of title[233] of biointermediates is unnecessary to track their distribution. However, as discussed more thoroughly in Section VII.C.1, because the renewable fuel producer is ultimately responsible for the validity of any RINs generated from the biointermediate, it is necessary that the renewable fuel producer receive sufficient information from the biointermediate producer to demonstrate that the biointermediate, and therefore the renewable fuel, was produced from renewable biomass under an approved pathway. It would therefore be inappropriate not to require the transfer of any of this information between the biointermediate and renewable fuel producers. We also point out that even if some of the information specified in the PTD requirements for biointermediates is covered as part of customary business practice, not all of it is, and parties may not keep the PTDs as records in a way that is conducive to third-party and EPA oversight. We are therefore finalizing PTD provisions requiring that the information necessary to demonstrate that the biointermediate was produced from renewable biomass and via a process included under an EPA-approved pathway be included for transfers of title for the biointermediate.

We are not finalizing proposed changes to PTD requirements for RINs generated from renewable fuel produced from biointermediates. In the NPRM, we proposed that RIN PTDs would need to identify that the RINs were generated for renewable fuels produced from biointermediates as well as the EPA-issued company and facility numbers of the biointermediate producer. We explained that by requiring such information on the RIN PTDs, parties that transfer or use such RINs would better understand whether they were transferring and using RINs generated from renewable fuels produced from

[229] For reference, these elements include the name and address of the transferor and transferee, the transferor's and transferee's EPA-issued registration numbers, the volume of biointermediate being transferred, the date of the transfer, and the location of the biointermediate at the time of the transfer.

[230] See 40 CFR part 1090, subpart L.

[231] A bill of lading is a document issued by a carrier to a shipper that details the type, quantity, and destination of the goods being carried. Under EPA's fuels programs, parties have typically included PTD language requirements on bills of lading for the product being transferred; however, EPA does not specify which specific document that EPA's PTD language requirements is included on as long as a document containing the applicable, required PTD language accompanies the transfer.

[232] The record retention requirements for RFS are located at 40 CFR 80.1454(n).

[233] In general, we expect titles of transfer to occur primarily between biointermediate and renewable fuel producers.

biointermediates. All commenters, including those that we believed would appreciate such information, opposed the additional requirement for RIN PTDs. These commenters noted that they could already obtain such information and that inclusion of such information on PTDs may cause RINs from biointermediates to not be traded and would be unnecessarily disruptive to existing RIN transactions. We appreciate the commenters' concerns and are, therefore, not finalizing the proposed RIN PTD language. Although we are not finalizing the proposed RIN PTD language, we stress here again that it is a violation of the RFS regulations to transfer or use an invalid RIN and it is incumbent upon all parties to undertake due diligence to ascertain the validity of RINs that they transfer or use to meet an RVO.

7. Registration, Reporting, and Recordkeeping Requirements

We are finalizing registration, reporting, and recordkeeping requirements related to the production, distribution, and use of biointermediates for both biointermediate producers and renewable fuel producers largely as proposed. Under the RFS program, the renewable fuel producer is always responsible for verifying and demonstrating that the renewable fuel it produces is derived from renewable biomass and was produced in accordance with an approved renewable fuel production pathway.[234] If the renewable fuel producer is using a biointermediate, however, the direct link between the renewable fuel producer and the renewable biomass supplier is lost. In such cases, the biointermediate producer is required to verify and provide records (in the form of PTDs) to the renewable fuel producer that demonstrate the feedstock used to make the biointermediate meets the definition of renewable biomass and is part of the approved renewable fuel production pathway that the renewable fuel producer intends to use to generate RINs. Therefore, additional registration, recordkeeping, and reporting requirements associated with biointermediates are needed to provide the renewable fuel producer with the information necessary to verify that the fuel they produce qualifies as renewable fuel for which RINs may be generated.

We discuss each of these requirements separately in Sections VII.C.7.a through c below.

[234] See 40 CFR 80.1473(a).

a. Registration

We are finalizing as proposed registration requirements for biointermediates producers and corresponding changes to renewable fuel producers' registration requirements to allow for the production, distribution, and use of biointermediates.[235] Under the biointermediates program, biointermediate producers must register with EPA by facility in a manner similar to renewable fuel producers. The registration information submitted by the biointermediate producer must include the basic company information (*e.g.,* company name, address of production facility, etc.) required for all EPA fuels program registrants. In addition, biointermediate producers must provide basic operational information, such as the capacity of their production facility, the processes utilized to produce the biointermediate, the feedstocks they will use, a description of their biointermediate product, and the pathway(s) they believe the biointermediate product could be used in.

Similar to renewable fuel producers, biointermediate producers must arrange for an independent third-party engineer to conduct a review for each facility. This independent third-party engineering review must include a site visit and review of the registration submission to independently evaluate the facility's ability to produce the biointermediate under an EPA-approved pathway. To implement the facility transfer limits discussed in Section VII.C.4, a biointermediate producer must identify the single renewable fuel production facility that will use its biointermediate product as part of the registration information reviewed by the third-party engineer and submitted to EPA.

In order to use a biointermediate, existing renewable fuel producers must also update their registration information to demonstrate that the renewable fuel production facility can produce qualifying renewable fuel from the biointermediate. A renewable fuel producer cannot use a biointermediate until EPA has accepted both the biointermediate producer's and the renewable fuel producer's registration materials reflecting the production and use of the biointermediate.

Similar to renewable fuel producers' registrations, biointermediate producers must submit updated registration information every three years, including a new independent third-party engineering review. In addition, biointermediate producers must update their registration materials between three-year updates if specified changes in their operations occur.[236] A biointermediate producer must also comply with any other applicable registration requirements related to the particular renewable biomass feedstock(s) that would otherwise apply to a renewable fuel producer (*e.g.,* submitting separated food waste plans and requirements related to the use of crop residue as a feedstock).

We note that acceptance by EPA of a registration submission does not represent a determination by EPA of substantive compliance with applicable regulatory requirements. Biointermediate producers, as has been the case for all renewable fuel producers since the start of the RFS program, are responsible for ensuring on a continual basis that all applicable regulatory requirements are satisfied. For biointermediate producers, this includes, but is not limited to, the requirement to produce biointermediates from renewable biomass and in compliance with EPA-approved pathways.

b. Reporting and EMTS

We are finalizing, with minor revisions based on comments received, reporting requirements for biointermediates producers that will help EPA oversee the program and that will serve as the basis for third-party verification of the production, distribution, and use of biointermediates.[237] Under the biointermediates program, biointermediate producers must submit quarterly reports to EPA that include feedstock and process information by batch, volume of the batch, renewable content of the batch, and cellulosic content of the batch (if applicable), as well as the specific renewable fuel facility where the batch of biointermediate was sent to be used for the production of renewable fuel. The biointermediate producer must also designate each batch that is intended to be used as a renewable fuel feedstock, so that the biointermediate batches are directly linked to the renewable fuel

[235] The registration requirements for biointermediate producers and the modifications to the registration requirements for renewable fuel producers are both located at 40 CFR 80.1450.

[236] See 40 CFR 80.1450(d) for changes where a biointermediate producer must update their registration information.

[237] The reporting requirements for biointermediate producers as well as the modified reporting requirements for renewable fuel producers are located at 40 CFR 80.1451. The modifications to the EMTS reporting requirements for RIN generation are located at 40 CFR 80.1452.

batches produced from that biointermediate. Like renewable fuel producers, biointermediate producers may also have to submit periodic reports based on their use of specific feedstocks or processes.

We are also finalizing as proposed changes to the periodic reporting requirements for renewable fuel producers that use a biointermediate to help EPA ensure that biointermediates are being used appropriately. These changes include the reporting of the types and quantities of biointermediates used to produce batches of renewable fuel and the processes used and proportion of renewable volume attributable to each biointermediate.[238] These revised reporting requirements will help EPA monitor compliance concerning the production and use of biointermediates by linking the volume of biointermediate produced by a biointermediate producer with the volume of renewable fuel produced by a renewable fuel producer.

We are finalizing as proposed provisions requiring that renewable fuel producers report additional information in EMTS related to the generation of RINs from renewable fuels produced from biointermediates. For EMTS, the renewable fuel producer utilizing biointermediates in the production of renewable fuel must report the type and quantity of biointermediates used for the batch and the EPA company and facility registration number for each biointermediate production facility. Renewable fuel producers utilizing biointermediates must report in EMTS the total co-products and the process(es), feedstock(s), and biointermediate(s) used and proportion of renewable volume attributable to each process and feedstock.

By the effective date of this action, we intend to complete modifications to EMTS to accommodate these updated reporting requirements for producers of renewable fuel to help track and ensure that biointermediates are used appropriately. Due to the similarity between the ways that biointermediates will be used and existing feedstocks are already being used, biointermediates use will be tracked through EMTS. In addition, aligning batches of RINs generated for renewable fuel with the biointermediate batches used to produce the fuel will help EPA ensure that volumes of biointermediates are appropriately used to generate valid RINs.

These reporting requirements and tracking in EMTS will help EPA monitor the generation of RINs for renewable fuel produced from biointermediates, thereby reducing the potential for fraud and enhancing the integrity of the program.

In the proposed rule, we sought comment on whether any additional functionality in EMTS would be helpful to implement the biointermediate program. Specifically, we sought comment on whether we should implement functionality that would allow transactors of RINs to see whether a RIN was generated from a biointermediate. We received several comments with suggestions on potential functional improvements to EMTS. We will consider such feedback as we prioritize future EMTS development.

c. Recordkeeping

We are finalizing recordkeeping requirements for biointermediate producers as proposed.[239] Under these recordkeeping requirements, biointermediate producers must comply with essentially the same feedstock and process-related recordkeeping requirements as those in place for renewable fuel producers. Since the biointermediate producer is a party between suppliers of feedstocks listed in Table 1 and the renewable fuel producer, the biointermediate producer must maintain records related to the purchase of feedstocks used to produce the biointermediate. Biointermediate producers must also maintain appropriate records that demonstrate that feedstocks meet the definition of renewable biomass. Finally, biointermediate producers must keep records of any calculations the biointermediate producer used to determine the renewable content and cellulosic content of the biointermediate, as applicable. This information must be conveyed to any renewable fuel producer that uses the biointermediate as part of the required PTDs as discussed in Section VII.C.6. Renewable fuel producers must maintain these PTDs in addition to complying with their current recordkeeping requirements.

8. Attest Engagements

We are finalizing attest engagement requirements for biointermediate producers as proposed.[240] Under the biointermediates program, biointermediate producers must undergo annual attest engagements similar to annual attest engagement requirements for renewable fuel producers. The attest engagements for biointermediate producers will help ensure that information contained in records is consistent with reported information to EPA as part of registration and periodic reporting. The attest engagement for biointermediate producers must be conducted by an outside certified public accountant or certified independent auditor following procedures specified in the regulations to determine whether the underlying records for the biointermediate, the reported information to EPA, and copies of PTDs provided to the renewable fuel producer agree. The attest auditor must also validate the list of renewable fuel producers receiving any transfer of biointermediate batches to assure that the transfer limits discussion in Section VII.C.4 are met. The attest auditor must issue a report to EPA detailing the audit, their procedures, and any findings. We are also finalizing corresponding changes to the attest engagements for renewable fuel producers to ensure that attest auditors verify records, reports, and PTDs related to the use of a biointermediate by the renewable fuel producer.

9. Liability, Prohibited Activities, and Invalid RINs Related to Biointermediates

We are finalizing with modifications provisions that establish prohibited activities related to biointermediates, how biointermediate producers and renewable fuel producers will be held liable, when biointermediates will be determined to be invalid, and provisions related to the treatment of invalid RINs related to biointermediates.

a. Liability in Cases Where a Biointermediate is Noncompliant

We are finalizing as proposed provisions that specify that both the biointermediate producer and renewable fuel producer are liable for cases where a biointermediate is determined not to comport with applicable regulatory requirements.[241] Renewable fuel producers are ultimately responsible for ensuring that any biointermediate used to produce renewable fuel complies with the applicable statutory and regulatory requirements, consistent with the

[238] The related forms for RFS producers are available at: *https://www.epa.gov/fuels-registration-reporting-and-compliance-help/how-report-quarterly-and-annually-renewable-fuel.*

[239] The recordkeeping requirements for biointermediate producers are located at 40 CFR 80.1454.

[240] The requirements for annual attest engagements for biointermediate producers and the modification for annual attest engagements for renewable fuel producers are located at 40 CFR 80.1464.

[241] The liability provisions for biointermediate producers and renewable fuel producers that use biointermediates is located at 40 CFR 80.1461.

requirement that they use qualifying feedstocks and processes to produce renewable fuels and generate RINs. Submission and EPA acceptance of feedstock and process descriptions in registration materials does not represent a determination by EPA that the actual feedstocks and processes used by a facility are in fact compliant with the RFS regulations; the responsibility of ensuring that they comply with applicable requirements on a continuing basis rests with both the renewable fuel producer and the biointermediate producer.

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

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

b. Prohibited Activities

We are finalizing as proposed several amendments and additions to the prohibited activities related to the production, distribution, and use of biointermediates.[242] Specifically, we are finalizing the following prohibited activities:

- No person may introduce into commerce for use in the production of a renewable fuel any biointermediate produced from a feedstock or through a process that is not described in the person's EPA-accepted registration information;
- No person may produce a renewable fuel at more than one facility unless the person uses a biointermediate as defined under § 80.1401 or the renewable biomass is not substantially altered;[243]
- No person may transfer a biointermediate from a biointermediate production facility to a facility other than the renewable fuel production facility specified in the biointermediate producer's EPA-accepted registration information;
- No person may isolate or concentrate non-characteristic components of the feedstock to yield a biointermediate not identified in a registration accepted by EPA; and
- No person may generate a RIN for fuel that was produced from a biointermediate for which the fuel and biointermediate were not audited under an EPA-approved quality assurance plan.
- No person may transfer a biointermediate without complying with the PTD requirements in 40 CFR 80.1453(f).

We are modifying from our proposal the prohibited act that ''no person may isolate or concentrate non-characteristic components of the feedstock to yield an intermediate product not contemplated by EPA in establishing an approved pathway that the biointermediate producer and the renewable fuel producer are using to convert renewable biomass to renewable fuel.'' [244] The purpose of this proposed prohibited act was to ensure that a biointermediate producer will not isolate or concentrate certain components of feedstocks to produce a biointermediate that will no longer comport with the EPA-approved pathway identified in the biointermediate producer's accepted registration submission. For example, if a party is registered to produce a biointermediate for the production of cellulosic biofuel, the party would be prohibited from removing all cellulosic material from a cellulosic feedstock and still representing the biointermediate as being cellulosic. However, we recognize that the proposed language did not clearly communicate our intent or the prohibited act. We are therefore rewording the prohibited act to say that no person may isolate or concentrate non-characteristic components of the feedstock to yield a biointermediate not identified in a registration accepted by EPA. The purpose of this clarification is to state that biointermediate producers may not deviate from the processes and feedstocks for the production of biointermediates that EPA has accepted and registered them to use. We note that using a biointermediate or other feedstock that is inconsistent with a facility's registration information is prohibited regardless of this specifically enumerated prohibited act as it is a violation of the RFS regulations for a party to fail to meet any requirement of 40 CFR part 80, subpart M.[245] The inclusion of this prohibited act is for emphasis and clarity.

We are also adding a prohibited activity that states that no person may transfer a biointermediate without complying with the PTD requirements at 40 CFR 80.1453(f). As described in Section VII.C.6, the PTD requirements for biointermediates are an integral aspect of ensuring that renewable fuel producers have the necessary information to generate valid RINs. PTDs are also a fundamental component of our oversight and verification provisions for biointermediates and renewable fuels produced from biointermediates. We also received a comment that asked EPA to clarify the treatment of RINs for renewable fuels produced from biointermediates that were not accompanied by PTDs or were accompanied by incomplete or non-compliant PTDs. The commenter noted that because PTD review would be part of the QAP process for biointermediates

[242] The prohibited activities related to the production, distribution, and use of biointermediates, as well as other prohibited activities under the RFS, are located at 40 CFR 80.1460.

[243] The allowable form changes, *i.e.,* form changes that do not result in substantial alteration of the renewable biomass feedstock, are described in the regulations at 40 CFR 80.1460(k)(2).

[244] 86 FR 72495.

[245] See 40 CFR 80.1460(f).

and renewable fuels produced from biointermediates, they believed it likely that the issue of RINs being generated from biointermediates without compliant PTDs would occur and that EPA should identify how those RINs would be treated. Under the scenario outlined by the commenter, the RINs would be invalid under 40 CFR 80.1431 because the regulations at 40 CFR 80.1426(a)(1)(iii) require that the renewable fuel producer meet the applicable recordkeeping requirements, which include maintaining copies of all applicable PTDs. Again, we note that regardless of the inclusion in the regulations of this specifically enumerated prohibited act, it is a violation of the RFS regulations for a party to fail to meet any requirement of 40 CFR part 80, subpart M, including the requirements to transfer and maintain compliance PTDs.[246]

We believe that these prohibited activities will provide certainty to regulated parties with regard to the production, distribution and use of biointermediates and renewable fuels made from biointermediates. These provisions will help to provide strong incentives on the part of renewable fuel producers to diligently be involved in overseeing the production, transfer, and use of biointermediates. Finally, these provisions are necessary to address the increased complexity of allowing renewable fuels to be processed at more than one production facility.

c. Invalid RINs From Biointermediates

We are finalizing as proposed provisions that address the treatment of invalid RINs generated on renewable fuels produced from biointermediates. Due to the potential complexity involved in determining the validity of RINs generated for renewable fuel produced from a biointermediate, we are requiring that if any of the RINs in any batch of renewable fuel produced from a biointermediate are deemed invalid, then all RINs generated for that batch of renewable fuel will be considered invalid except to the extent that EPA, in its sole discretion, determines that some of these RINs would be valid. Circumstances in which invalid RINs generated on renewable fuels produced from biointermediates could arise include: where multiple biointermediates and/or non-biointermediate feedstocks are simultaneously processed to make renewable fuel with the same D-code; where biointermediates and/or non-biointermediate feedstocks are simultaneously processed that result in multiple D-codes; and where biointermediates are co-processed with non-renewable biomass (*e.g.,* crude oil). Given the range of scenarios utilizing biointermediates to produce renewable fuels that would be permitted under this action and based on discussions with parties that have expressed interest in using various types of biointermediates in the future, we believe it is important to address such circumstances clearly in the regulations as apportioning which RINs were tied to which gallons of renewable fuel made in these situations is complicated.

In all cases where a RIN is generated for a batch of renewable fuel produced using a biointermediate is invalid, we are requiring that all RINs generated from the renewable fuel be presumed invalid unless EPA, in its sole discretion, determines that a portion of the RINs should remain valid. This means that even if multiple, different RIN batches would be generated in EMTS for apportioned volumes of the batch of renewable fuel, all RIN batches in their entirety would be invalid if any amount of non-qualifying biointermediate was used to generate any RIN on any volume of the renewable fuel. This will also include situations where the multiple RIN batches were for different D-codes or where multiple types of biointermediates were used. We believe this provision is appropriate to avoid having to determine specifically which RINs are invalid in situations where biointermediates are processed simultaneously with other feedstocks, as apportioning RINs based on the constituent components of a renewable fuel is highly complex when multiple biointermediates and other feedstocks, all with differing feedstock energies and volumes, are used. This provision will provide a strong incentive for renewable fuel producers to conduct due diligence oversight procedures on the biointermediate producer to avoid the invalidation of an entire batch of RINs.

We are also finalizing that, where the renewable fuel is a renewable diesel, renewable gasoline, renewable diesel blendstock, or renewable gasoline blendstock, if a RIN is invalid under 40 CFR 80.1431(a)(1), the gallon of gasoline or diesel fuel for which the RIN was generated would incur an RVO. The regulations for calculating RVOs at 40 CFR 80.1407(f)(1) already exclude ''[a]ny renewable fuel as defined in § 80.1401'' from the volume of gasoline or diesel fuel produced or imported used to calculate an obligated party's annual RVO. In many cases, RINs are determined to be invalid because the renewable fuel was not made from renewable biomass, the RINs were multiple-counted, or were otherwise invalidly generated. In such cases, any volume of renewable gasoline or renewable diesel fuel will no longer be considered renewable fuel and therefore cannot be excluded from an obligated party's RVO.

10. Foreign Biointermediate Producers

We are finalizing provisions for the use of biointermediates produced by foreign biointermediate producers. In general, foreign biointermediate producers are subject to the same regulatory requirements (*e.g.,* recordkeeping, reporting, registration, and PTD requirements) as domestic biointermediate producers. However, we are finalizing requirements for additional requirements for foreign biointermediates in two main areas.

For the first requirement, under the biointermediates program, foreign biointermediate producers must comply with requirements similar to those for foreign renewable fuel producers as described in 40 CFR 80.1466 related to inspection and audit, agent appointment for service of process, and the application of U.S. substantive and procedural laws to any civil or criminal enforcement action.[247] These requirements for foreign biointermediate producers will allow EPA to monitor the producers and carry out enforcement actions should a violation occur outside the U.S.

For the second requirement, we are finalizing a requirement that foreign biointermediate producers may only transfer their biointermediates to domestic and foreign RIN-generating renewable fuel producers. This means that foreign biointermediate producers will not be allowed to transfer their biointermediate to non-RIN-generating foreign producers. This limitation serves three purposes. One, non-RIN generating renewable fuel producers are not subject to certain requirements for registration that we believe are necessary to effectively oversee the production of biointermediates. RIN-generating renewable fuel producers are required to provide in EMTS the type

[246] See 40 CFR 80.1460(f).

[247] The primary difference between the foreign renewable fuel producer requirements under 40 CFR 80.1466 and the foreign biointermediate producer requirements under 40 CFR 80.1478 is that foreign biointermediate producers do not have to post a bond. Bonds are required in cases where a foreign party generates or owns RINs (*i.e.,* foreign RIN-generating foreign producers and foreign RIN owners). Since foreign biointermediate producers are not generating RINs, we are not requiring them to post a bond. However, if a foreign biointermediate producer would otherwise be required to post as bond by either generating or owning RINs, the bonding provisions under 40 CFR 80.1466 would apply.

and volume of the biointermediate used and the registration number of the biointermediate production facility as well as obtain a bond based on the number of RINs they produce. The existence of foreign biointermediate producer's information in EMTS allows EPA to oversee all parties in the chain of RIN generation. This information is not available if foreign biointermediates are transferred to foreign non-RIN generation renewable fuel producers. The bond provides financial assets for EPA to leverage should an issue with the validity of the RINs come into question. Without these controls, we cannot effectively oversee and enforce potential issues with foreign produced renewable fuels made from biointermediates.

Two, it is unreasonable for the importer of a renewable fuel produced from a biointermediate to maintain formal contractual relationships with the biointermediate producer,[248] each party outside of the United States that distributed the biointermediate outside of the United States, and the foreign renewable fuel producer. Importers of renewable fuel are typically domestic companies that specialize in the importation and distribution of products into the U.S. and often lack the foreign presence to effectively and independently oversee biointermediate production, transfer, and use by foreign parties. We have structured the biointermediates program to provide incentives (*e.g.,* through the treatment of invalid RINs discussed in Section VII.C.9) for renewable fuel producers to ensure that biointermediate producer complies with applicable EPA regulatory requirements. We believe the chain of parties involved in the production of renewable fuel from a biointermediate outside the U.S. is too attenuated for the importer of the renewable fuel to reasonably conduct due diligence without the safeguards imposed by EPA for RIN-generating foreign producers discussed previously.

Three, similar to the concerns highlighted for importers, we do not believe that the RFS QAP provisions would effectively cover a situation with three parties—a foreign biointermediate producer, non-RIN-generating foreign producer, and renewable fuel importer—in the chain. As discussed in Section VII.C.5, RIN-generating renewable fuel producers that use biointermediates must participate in the RFS QAP and that the same QAP auditor must verify both the foreign biointermediate producer and RIN-generating foreign producer. Adding a third-party in this chain would significantly increase the complexity of the QAP verification process and would necessitate further amendments to the RFS QAP program and associated implementation measures to verify RINs generated from such a production chain. To accommodate these three-party verification schemes (*i.e.,* verification of the biointermediate producer, the foreign renewable fuel producer, and the renewable fuel importer), we would require consider time to develop our systems and review quality assurance plans, which could significantly delay implementation of the program and acceptance of foreign biointermediates into the program.

We received comments suggesting that we exempt foreign ethanol producers that produce undenatured ethanol used as a biointermediate from the transfer limits discussed in Section VII.C.4. Specifically, commenters suggested that we exempt foreign ethanol producers that designate their undenatured ethanol as a biointermediate from the batch segregation requirement and the limit on biointermediate producers supplying only a single renewable fuel production facility.[249] As explained above, these requirements are in place to ensure that biointermediates are produced using qualifying renewable biomass under an EPA-approved pathway and are not multiple-counted for RIN generation. Commenters said that they believed that existing provisions for foreign ethanol producers under the RFS coupled with TTB requirements for the control and tracking of undenatured ethanol in the U.S. rendered the biointermediate provisions unnecessary. They noted that the proposed biointermediate provisions would likely make the transfer of foreign undenatured ethanol for use as a biointermediate infeasible. Finally, some commenters noted that foreign ethanol producers cannot meet the proposed foreign biointermediate provisions under their current production and distribution practices.

We are not finalizing any changes to the requirements for foreign biointermediate producers as they apply to foreign undenatured ethanol producers at this time. While we appreciate commenters' concerns regarding how the foreign ethanol producer provisions intersect with the biointermediates provisions, we believe that the tracking afforded by the biointermediate provisions is necessary to ensure that undenatured ethanol, including foreign undenatured ethanol, is properly produced (*i.e.,* produced from qualifying renewable biomass under an EPA-approved pathway), distributed (*i.e.* not commingled with non-qualifying undenatured ethanol), and used (*i.e.,* only used as a biointermediate and not double-counted as renewable fuel and a biointermediate). We do not believe it is appropriate at this time to create disparate regulatory regimes for different biointermediates. One of the primary goals of establishing a common regulatory framework that applies to all biointermediates is to help ensure consistency and fairness in the treatment of renewable fuels produced at multiple locations while at the same time ensuring the valid generation of RINs. Creating a separate regulatory regime for foreign undenatured ethanol is not consistent with our intent to create a common regulatory framework that could address the use of many different types of biointermediate.

Commenters failed to explain how TTB requirements, which are largely designed to ensure that undenatured ethanol is appropriately taxed, would effectively ensure that undenatured ethanol used as a biointermediate to produce renewable fuel was produced from qualifying renewable biomass and used under an EPA-approved pathway consistent with the RFS program requirements. We also note that TTB requirements only apply to domestic undenatured ethanol and do nothing to effectively track and oversee undenatured ethanol produced and distributed outside of the U.S. While we appreciate that TTB requirements for undenatured ethanol could help ensure the tracking of undenatured ethanol in the U.S., we do not believe those requirements are substitutes for the biointermediate provisions, especially as they apply to foreign biointermediate producers.

Furthermore, as mentioned above, the foreign biointermediate producer provisions largely mirror the requirements that already apply to foreign renewable fuel producers, including foreign ethanol producers. Therefore, we believe that foreign

[248] The requirements regarding the distribution of foreign renewable fuels are described at § 80.1466 and for foreign biointermediates at § 80.1478.

[249] Under the biointermediates program, foreign undenatured ethanol is not presumed to be a biointermediate. Under the provisions for foreign undenatured ethanol, the importer of the undenatured ethanol must denature the ethanol and generate RINs for the denatured fuel ethanol as a renewable fuel. However, under the biointermediates program, for any undenatured ethanol (foreign or domestic) to be used as a biointermediate, the producer of the undenatured ethanol must designate the undenatured ethanol as a biointermediate and comply with the applicable provisions for the production, transfer, and use of the undenatured ethanol as a biointermediate.

ethanol producers should already be meeting the requirements as specified in 40 CFR 80.1466, and the foreign biointermediate producer provisions should not impose any additional burden on parties that are already complying with the regulations.

D. Other Considerations Related to Biointermediates

1. C–14 Testing and Mass Balance for RIN Generation

We are finalizing provisions that ensure for the accurate measurement of renewable content in cases where biointermediates are co-processed with petroleum feedstocks at a renewable fuel production facility. Specifically, we are finalizing three options: (1) C–14 measurement using Method B of ASTM D6866, (2) C–14 measurement using Method C of ASTM D6866 (with some restrictions as explained below), and (3) facility-specific, alternative methods for measuring renewable content as approved by EPA. Under this approach, we would not allow the use of mass balance as specifically described in the regulations at 40 CFR 80.1426(f)(4)(i)(A) (*i.e.,* ''Method A''); however, we may consider other mass balance approaches when considering facility-specific, alternative methods.

We proposed that only C–14 testing, specifically Method B (accelerator mass spectrometry) of ASTM D6866, be used in cases where biointermediates are co-processed with petroleum feedstocks at a renewable fuel production facility. We explained that we were proposing to require C–14 testing because we believed that the volume of biointermediate co-processed with petroleum at a crude refinery would likely be a small fraction of the refinery's throughput, which would make it difficult to rely on a mass balance approach for RIN generation.[250] Our primary concern was, and still is, that the co-processed fuel would contain little or no renewable content from the biointermediate and that using the mass balance approach, which determines renewable content based on assumptions rather than direct measurement, could overestimate renewable content and therefore result in the generation of RINs for the nonrenewable portion of the co-processed fuel. Thus, in order to determine if and how much renewable content is actually present, we believed C–14 testing of the finished fuel would be necessary. We also sought comment on potential alternatives to direct C–14 measurement of renewable content of co-processed fuels.

We received a range of comments on our proposal. Some commenters recognized that Method B of ASTM D6866 is the most accurate way to measure renewable content in processed fuels, and with the support of these comments and for the reasons set out in the proposed rule, we are finalizing the use of Method B of ASTM D6866 as one option for the measurement of renewable content of co-processed renewable fuels from biointermediates.

Other commenters mentioned that mass balance could be more accurate than direct C–14 measurement in some circumstances, especially at lower concentrations of renewable content or when samples are contaminated with artificial C14 (the latter of which would make the test not compliant with ASTM D6866–22). However, commenters did not provide any new data or information suggesting how mass balance could more accurately measure low concentrations of renewable content. Specifically, commenters did not address how ''Method A'' as specified in the regulations at 40 CFR 80.1426(f)(4)(i)(A) could produce accurate results at low renewable fuel concentrations. As explained above, we are concerned that a mass-balance approach may not accurately estimate renewable content in a finished fuel when very small amounts of biointermediates are co-processed with petroleum fuels and are therefore finalizing our proposal that ''Method A'' cannot be used to determine renewable content for co-processed renewable fuels produced from biointermediates.

In the NPRM, we also sought comment on the potential use of Method C of ASTM D6866. We received comments asserting that this method is more cost-effective than method B. While some comments expressed concern that Method C is less accurate, especially at lower concentrations of biogenic content, other commenters stated that it should be allowed for use as it has a similar absolute uncertainty as Method B of ASTM D6866. While we appreciate that Method C is cheaper and more widely available, we still have concerns about its efficacy at lower concentrations of renewable content in co-processed fuels. Based on commenters' suggestions, we are finalizing provisions that allow for the use of Method C of ASTM D6866 when the renewable content of the co-processed fuel is at or above 10 percent. ASTM D6866–10 discusses how the increased accuracy of Method B, relative to Method C, is recommended when measuring below 10 percent renewable content, so limiting Method C to circumstances in which the renewable content at or above 10 percent balances the concern for accuracy with the cost of analysis.[251]

We received several suggestions in response to our request for other potential alternatives. Commenters suggested that statistical models could be developed based on initial C–14 validation testing which could be approved as facility-specific approaches. Other commenters requested that we allow the use of a performance-based approach to approving new methods for renewable content measurements similar to what we allow under our performance-based measurement system (PBMS) under the 40 CFR part 1090 fuel quality regulations.

While we continue to believe that direct C–14 measurement, specifically Method B of ASTM D6866, is the most accurate and precise way to determine the renewable content of co-processed fuels, we recognize that other methods, especially when tailored to a specific facility, could provide an accurate assessment of renewable content in co-processed fuels made from biointermediates. Based on commenters' suggestions that we provide a mechanism to approve facility-specific measurement procedures, we are finalizing an approach under which EPA can approve facility-specific alternatives to testing using Method B or Method C of ASTM D6866. This is consistent to what we currently allow for co-processed renewable fuels (see 40 CFR 80.1426(f)(9)(ii)), and we believe that such a facility-specific approach can potentially accommodate a wide range of alternatives. However, we note that while we may approve mass balance approaches tailored to specific facilities under this option, we would only intend to approve such an approach if the renewable fuel producer provides sufficient information about all inputs and outputs for the facility that is co-processing the biointermediate and validates assumptions used in any mass balance approach with data and testing that demonstrate that renewable biomass actually results in the production of renewable fuel.

2. Implications of Using Biointermediates for Lifecycle GHG Assessments

We are not making any changes to Table 1 to 40 CFR 80.1426 as a result

[250] See Martin R. Haverly et al., Biobased Carbon Content Quantification through AMS Radiocarbon Analysis of Liquid Fuels, 237 Fuel, 1108, (2019).

[251] See ASTM D6866–10, ''Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis,'' available in the docket for this action.

of allowing biointermediates to be used under the RFS program. Each renewable fuel pathway consists of a fuel type, feedstock, and production process. Under the RFS program, we must assess lifecycle GHG emissions for each potential pathway to determine whether it meets the GHG reduction threshold, as compared to the 2005 statutory petroleum baseline, for one or more of the four renewable fuel categories. Table 1 contains the many generally applicable pathways for which we have we assessed the lifecycle GHG emissions and assigned D codes. We are finalizing our proposed approach to creating and implementing a biointermediates program that maintains the framework of the existing pathways in Table 1 and provides that those pathways can now be followed through the production and use of a biointermediate. That is, the Table 1 pathways can now be implemented at more than one facility—a biointermediate production facility and the renewable fuel production facility.

Before this action, each pathway involved the conversion of a type of renewable biomass feedstock to a renewable fuel at one facility. The allowance of biointermediates in this action means that, under certain circumstances, a feedstock can now be processed at more than one facility. This additional flexibility does not change the requirement that to be eligible to generate RINs, fuels must be produced through an approved pathway. Although Table 1 does not explicitly list biointermediates or biointermediate processing requirements, fuels produced from biointermediates can qualify for existing Table 1 pathways. For example, row M in Table 1 includes a pathway for renewable gasoline produced from crop residue through a process of ''catalytic pyrolysis and upgrading process . . . utilizing natural gas, biogas, and/or biomass as the only process energy sources.'' Crop residue converted to biocrude via catalytic pyrolysis at one facility and then upgraded to renewable gasoline at another facility that uses only natural gas for process energy would be eligible for cellulosic biofuel (D-code 3) RINs through the row M pathway provided that all other applicable regulatory requirements are satisfied. As this example illustrates, the addition of a biointermediate does not change the pathway other than conducting the same processing steps at two facilities instead of one.

We do not believe that the additional flexibility for biointermediates provided in this action necessitates changes to Table 1 on the basis of lifecycle GHG emissions. EPA evaluated the lifecycle GHG emissions associated with each pathway before it was added to Table 1 and determined that each pathway met the applicable GHG reduction requirement corresponding to the RFS fuel category. In general, these evaluations assumed that the bulk renewable biomass would be converted to renewable fuel at one facility. Compared to these prior evaluations, allowing the processing of renewable biomass to renewable fuel to occur at more than one facility may affect the emissions associated with transporting the bulk biomass, biointermediates and renewable fuels through the supply chain. However, we expect that in most cases the overall transportation emissions would decrease or be minimally affected. We anticipate that a supply chain that includes biointermediates would likely involve a ''hub and spoke'' arrangement with multiple biointermediate production facilities, located close to biomass collection points, that supply biointermediates to a single renewable fuel production facility. Relative to a supply chain that involves conversion at one facility, the hub and spoke model would reduce transport distances of bulk biomass and add transport of biointermediates. Renewable biomass is typically less energy dense (*i.e.,* less calorific energy per ton) than the resulting biointermediate. Renewable biomass is also typically more challenging logistically to transport than biointermediates because it is often more difficult to store (*i.e.,* more likely to degrade) and less uniform in shape and consistency relative to the biointermediate. For these reasons, bulk biomass typically requires more energy and associated GHG emissions to transport relative to the resulting biointermediate. In some cases, the biointermediate supply-chain may add to the overall transport distance of materials relative to a supply chain with only one facility, but in these cases, we expect the lower GHG emissions per ton-mile of material transport to offset the longer overall distance. Thus, by replacing transport of renewable biomass with transport of biointermediates we expect the biointermediate supply chains to either reduce or not significantly affect supply chain transportation and distribution related GHG emissions. For these reasons, and given that transportation and distribution GHG emissions are often small relative to other lifecycle stages, we do not expect the allowance of biointermediates to significantly increase the lifecycle GHG emissions associated with these fuel pathways relative to our existing estimates.

Under the biointermediates provisions, all of the pathways currently applicable to renewable fuel under Table 1 would allow for the use of biointermediates provided implementation of the pathway using a biointermediate: (1) starts with the renewable biomass feedstock specified in the Table 1 pathway; (2) produces the fuel specified in the Table 1 pathway; (3) converts the renewable biomass feedstock to a biointermediate and the biointermediate to the renewable fuel using processes that are consistent with the production process requirements specified in the Table 1 pathway; and, (4) satisfies all of the other applicable regulatory requirements. Of course, qualifying renewable fuel cannot be made from a biointermediate if the fuel production pathway is not listed in Table 1 or otherwise approved by EPA.

In addition to the generally applicable pathways in Table 1, EPA has also approved many facility-specific pathways in response to petitions submitted pursuant to the process at 40 CFR 80.1416. These approvals are based on our evaluations of the GHG emissions associated with the particular processes, materials used, fuels produced, and process energy types and amounts outlined and described in each of the facility-specific petition requests. Because our lifecycle GHG analyses and pathway approvals are specific to the precise processes, materials, etc. described in petitions, we are not allowing existing facility-specific pathways to introduce the use of a biointermediate under their existing approvals. To the extent that the facility-specific determinations are already tailored to the particular circumstances of each pathway, we do not anticipate this restriction will directly affect implementation of the previously approved facility-specific pathways. In a limited number of cases, EPA previously approved facility-specific pathways that include use of a biointermediate. Existing pathway approvals that expressly allow for the use of a particular biointermediate are not affected by this action. However, if a facility producing fuel through a facility-specific pathway makes any changes in its feedstocks, processes or fuels produced that are outside the scope of its existing facility-specific pathway, including by introducing the use of a biointermediate, it would need to petition EPA for a new pathway evaluation pursuant to 40 CFR 80.1416.

As a general matter, renewable fuel produced through facility-specific pathways must be produced in

accordance with the RFS regulations at 40 CFR part 80, subpart M, including the requirements for producing renewable fuel from biointermediates that are being finalized in this action. Facility-specific petitions may also include specific conditions, as determined through the informal adjudication and pursuant to 40 CFR 80.1426(a)(1)(iii), 40 CFR 80.1416(b)(1)(vii), 80.1450(i), and 80.1451(b)(1)(ii)(W), that apply to fuel production and RIN generation. Moving forward, we intend that future facility-specific pathway approvals will allow for the use of particular biointermediates that are regulatorily defined at 40 CFR 80.1401, and that such pathways will be governed by the applicable requirements for producing renewable fuel from biointermediates, as well as any facility-specific conditions and requirements.

VIII. Amendments to Fuel Quality and RFS Regulations

This section describes the regulatory changes we are finalizing for the fuel quality and RFS programs. We address comments related to these regulatory changes in Section 11 of the RTC document.

A. BBD Conversion Factor for Percentage Standard

In the proposed rule we noted our observation that the average Equivalence Value of BBD appears to have grown over time without stabilizing, and that the average future Equivalence Value for BBD was likely to be at least 1.55. We therefore proposed replacing the factor of 1.5 in the percentage standard formula for BBD with a factor of at least 1.55. We did not propose changing any other aspect of the percentage standard formula for BBD. We received several adverse comments on this proposed definition. In light of these comments, we are not finalizing this proposed change in this rule. We will continue to monitor the average number of RINs generated per gallon of BBD, and may consider this change in a future rule.

B. Changes to Registration for Baseline Volume

We are finalizing as proposed revised registration requirements at 40 CFR 80.1450(b)(1)(v) as well as revisions to the definition of ''baseline volume'' at 40 CFR 80.1401 to allow a non-exempt (*i.e.,* non-grandfathered) renewable fuel producer to use either nameplate capacity or actual peak capacity for their facility's baseline volume if permitted capacity cannot be determined. We are not changing the requirements for establishing the baseline volume of grandfathered facilities.[252] [253] All non-grandfathered facilities with an applicable permitted capacity will continue to be required to register using that permitted capacity pursuant to 40 CFR 80.1450(b)(1)(v)(A).

We are finalizing this revision in order to allow for more up-to-date information to be used in establishing the baseline volumes of non-grandfathered facilities. The existing provision at 40 CFR 80.1450(b)(1)(v)(C) requires facilities to use actual peak capacity if the applicable air permit does not include a permitted maximum rate annual volume output. However, actual peak capacity is based on actual production tied to when EISA was enacted (*i.e.,* December 2007), which is now well more than a decade in the past. This historical peak capacity is not necessarily an accurate reflection of the facility's current production capacity. Since the passage of EISA, facilities may have improved efficiency, expanded the facility, or experienced an increase in production due to increased demand, resulting in larger production than the year used to calculate actual peak capacity. Having accurate capacity information for registered renewable fuel facilities is important for EPA in helping to identify whether facilities are generating an appropriate number of RINs.[254] This change will allow a non-exempt facility to choose whether to use actual peak capacity or nameplate capacity if permitted capacity cannot be determined. Non-exempt facilities already registered using actual peak capacity will have the option to switch to nameplate capacity at any time.[255] This change will have no impact on facilities who choose not to use this option.

C. Changes to Attest Engagements for Parties Owning RINs (''RIN Owner Only'')

We are exempting parties that transact a relatively small number of RINs from the annual attest engagement requirements. In order to qualify for this exemption, parties must be registered solely as a ''RIN Owner''. They may not be registered or engaged in any other role under the RFS program (*e.g.,* obligated party, exporter of renewable fuel, renewable fuel producer, renewable fuel importer, etc.). Until this action, such parties were required to submit an annual attest engagement under 40 CFR 80.1464(c), regardless of the number of RINs they transacted or held in a compliance year. For example, a party whose only activity was to buy and sell a single RIN in any given compliance year would have been required to complete an attest engagement for that year. Additionally, some parties that own a small number of RINs have difficulty selling small denominations of RINs (*e.g.,* hundreds of separated D6 RINs) and may end up holding those RINs until they expire. These parties would have had to then arrange for an annual attest engagement performed by a certified professional accountant (CPA) for those RINs, which can be quite costly especially when compared to the relatively low value of the small number of RINs owned.

We believe that parties who, in a given compliance year, are registered as a ''RIN Owner'' only, who transact 10,000 or fewer RINs, and who do not exceed a RIN holding threshold under 40 CFR 80.1435, should not be required to complete an attest engagement for that compliance year. A party who is registered as a ''RIN Owner Only'' does not generate RINs and does not have an RVO. We believe that the information contained in EMTS and RIN activity reports for these RIN Owners who transact a relatively small number of RINs and who do not exceed a RIN holding threshold, conveys the necessary compliance information, and that the attest engagements for these parties do not add much value relative to their expense. Many of the affected parties are smaller businesses that are required to arrange the services of a CPA to perform their annual attest engagement. Making this change to the attest engagement requirements may result in a cost savings to these typically smaller businesses, without adversely affecting RFS program oversight.

We intend that the total number of RINs transacted in the year be counted toward the 10,000 RIN limit. RINs ''transacted'' includes RINs retired for

[252] For purposes of this section, a ''grandfathered facility'' is a renewable fuel production facility that has volumes that are exempt from the renewable fuel lifecycle GHG reduction threshold under 40 CFR 80.1403(c). This provision exempts (*i.e.,* ''grandfathers'') facilities that commenced construction on or before December 19, 2007, did not discontinue construction for a period of 18 months after commencement of construction, and completed construction by December 19, 2010.

[253] For grandfathered facilities, baseline volume is the maximum volume of grandfathered fuel for which the facility is allowed to generate RINs. For non-grandfathered facilities, baseline volume is intended to indicate the maximum amount of renewable fuel that the facility is capable of producing. Actual peak capacity, however, may not be a good indicator of maximum capacity.

[254] Because the baseline volume of an exempt (*i.e.,* grandfathered) facility is by definition tied to either December 19, 2007, or December 31, 2009 (see 40 CFR 80.1403(c) and (d) and 80.1450(b)(1)(v)(B)), current production capacity is not relevant for such a facility.

[255] Facilities can also choose to keep their baseline volume as actual peak capacity.

reasons other than compliance retirements, such as the reason code ''voluntary RIN retirement.'' This means that if a party buys 5,000 RINs and sells 6,000 RINs in a year, the party will have transacted 11,000 RINs and must complete the attest engagement for that year. We are finalizing the 10,000 RIN limit based upon programmatic experience—specifically, we believe it reflects a reasonable level of activity below which the utility of the attest engagement is reduced.

D. Public Access to Information

Exemption 4 of the Freedom of Information Act (FOIA) exempts from disclosure ''trade secrets and commercial or financial information obtained from a person [that is] privileged or confidential.'' [256] In order for information to meet the requirements of Exemption 4, EPA must find that the information is either: (1) a trade secret, or (2) commercial or financial information that is: (a) obtained from a person, and (b) privileged or confidential. Information meeting these criteria is commonly referred to as ''confidential business information'' or ''CBI.'' [257]

In June 2019, the U.S. Supreme Court issued its decision in *Food Marketing Institute* v. *Argus Leader Media,* 139 S. Ct. 2356 (2019) (*Argus Leader*). *Argus Leader* addressed the meaning of ''confidential'' within the context of FOIA Exemption 4. The Court held that ''[a]t least where commercial or financial information is both customarily and actually treated as private by its owner and provided to the government under an assurance of privacy, the information is 'confidential' within the meaning of Exemption 4.'' [258] The Court identified two conditions ''that might be required for information communicated to another to be considered confidential.'' [259] Under the first condition, ''information communicated to another remains confidential whenever it is customarily kept private, or at least closely held, by the person imparting it.'' [260] The second condition provides that ''information might be considered confidential only if the party receiving it provides some assurance that it will remain secret.'' [261] The Court found the first condition necessary for information to be considered confidential within the meaning of Exemption 4, but did not address whether the second condition must also be met.

Following the issuance of the Court's opinion, the U.S. Department of Justice (DOJ) issued guidance concerning the confidentiality prong of Exemption 4, articulating ''the newly defined contours of Exemption 4'' post-*Argus Leader.*[262] Where the Government provides an express or implied indication to the submitter prior to or at the time the information is submitted to the Government that the Government would publicly disclose the information, then the submitter generally cannot reasonably expect confidentiality of the information upon submission, and the information is not entitled to confidential treatment under Exemption 4.[263]

Since the proposed rule, we have made some editorial changes to the final regulations to improve the readability of the new provisions and to harmonize the terminology used. These changes do not change the substance of the final regulations from what was proposed.

1. Treatment of Information Contained in Enforcement Actions and Invalid RIN Determinations

EPA has a longstanding practice of posting on its website or otherwise publicly releasing information describing fuels violations and invalid RIN determinations.[264] Accordingly, we are finalizing regulations to codify the types of information contained in fuels-related enforcement actions and invalid RIN determinations that are not entitled to confidential treatment pursuant to Exemption 4 of FOIA. This action covers information within notices of violation, settlement agreements, administrative complaints, civil complaints, criminal information, and criminal indictments related to EPA's fuel quality and RFS regulations in 40 CFR parts 80 and 1090 and invalid RIN determinations related to EPA's RFS regulations in 40 CFR part 80.

Since at least 2013,[265] EPA has posted on its website or otherwise publicly released information relating to violations of the fuel quality and RFS regulations. This information includes the company name and identification number, the total quantity of fuel and information relating to the exceedance of the fuel standard associated with the violation, information relating to the generation, transfer, or use of credits or RINs, and the total quantity of RINs in question. Therefore, EPA has already provided an implied indication to any submitters of such information after at least 2013 that EPA may publicly disclose such information. Accordingly, the information is not entitled to confidential treatment, and EPA intends to continue to release such information without further notice.

Through this action, we are also providing an express indication that such information is not entitled to confidential treatment and may be affirmatively disclosed to the public without providing further notice or process to the affected businesses. This action effectively serves as an advance confidentiality determination through rulemaking and covers the information identified below. Accordingly, 40 CFR 2.201 through 2.215 and 2.301 do not apply to the specified information submitted under this part and under 40 CFR part 1090, which is determined through this rulemaking to not qualify for confidential treatment. In particular, this action impacts certain information contained in EPA determinations that RINs are invalid under 40 CFR 80.1474(b)(4)(i)(C)(*2*) and (b)(4)(ii)(C)(*2*), notices of violation, settlement agreements, administrative complaints, civil complaints, criminal information, and criminal indictments. The information that EPA intends to continue release in the context of these determinations and actions includes the company name and company identification number, the facility name and facility identification number, the total quantity of fuel and information relating to the exceedance of the fuel standard associated with the violation, information relating to the generation, transfer, or use of credits or RINs, the

[256] 5 U.S.C. 552(b)(4).

[257] We note that CAA section 114(c) explicitly excludes emissions data from treatment as confidential information.

[258] *Argus Leader,* 139 S. Ct. at 2366.

[259] *Id.* at 2363.

[260] *Id.* (internal citations omitted).

[261] *Id.* (internal citations omitted).

[262] ''Exemption 4 After the Supreme Court's Ruling in Food Marketing Institute v. Argus Leader Media and Accompanying Step-by-Step Guide,'' Office of Information Policy, U.S. DOJ, (October 4, 2019), available at *https://www.justice.gov/oip/exemption-4-after-supreme-courts-ruling-food-marketing-institute-v-argus-leader-media.*

[263] See *id.*; see also ''Step-by-Step Guide for Determining if Commercial or Financial Information Obtained from a Person is Confidential under Exemption 4 of the FOIA,'' Office of Information Policy, U.S. DOJ, (updated October 7, 2019), available at *https://www.justice.gov/oip/step-step-guide-determining-if-commercial-or-financial-information-obtained-person-confidential.*

[264] See, *e.g.,* ''Clean Air Act Fuels Settlement Information,'' U.S. EPA, available at *https://www.epa.gov/enforcement/clean-air-act-fuels-settlement-information;* ''Civil Enforcement of the Renewable Fuel Standard Program,'' U.S. EPA, available at *https://www.epa.gov/enforcement/civil-enforcement-renewable-fuel-standard-program.*

[265] EPA began posting RFS enforcement-related determinations and actions in 2013. See ''Civil Enforcement of the Renewable Fuel Standard Program,'' U.S. EPA, available at *https://www.epa.gov/enforcement/civil-enforcement-renewable-fuel-standard-program.* EPA has been posting gasoline and diesel enforcement actions for much longer. See ''Clean Air Act Fuels Settlement Information,'' U.S. EPA, available at *https://www.epa.gov/enforcement/clean-air-act-fuels-settlement-information.*

total quantity of RINs in question, the batch number(s) and the D codes of the RINs in question, the time period when the RINs in question were generated or when the violation occurred, and any other information relevant to describing the violation at issue. Additionally, in response to a comment that EPA received on the NPRM, the information that EPA intends to continue to release in the context of these determinations and actions also includes information relating to an obligated party's failure to meet its RVOs. While we believe that this information is already included as information relating to the use of RINs or as any other information relevant to describing the violation at issue, we are explicitly including it in this determination for the avoidance of doubt and the sake of clarity. We are codifying this determination at 40 CFR 80.11 and 80.1402(b), as well as at 40 CFR 1090.15.

Publicly disclosing this information is important for providing transparency to stakeholders and the public with respect to violations of EPA's fuel quality and RFS programs and the relief EPA is seeking to remedy those violations through its enforcement actions. Public disclosure is also important to the successful operation and integrity of the RFS program as it may prevent parties from unwittingly transferring or attempting to use invalid RINs for compliance, in contravention of the RFS regulations, or from buying invalid RINs that they will be unable to use for compliance. For these reasons, we are providing an express indication through this final rule that such information is not entitled to confidential treatment.

2. Treatment of Information Contained in Requests Submitted Under the RFS Program

We are finalizing regulations that would help facilitate our processing of claims that RFS-related information should be withheld from public disclosure under FOIA, 5 U.S.C. 552(b)(4), as CBI. These regulations identify certain types of RFS information collected by EPA under 40 CFR part 80, subpart M, that EPA considers as not entitled to confidential treatment pursuant to Exemption 4 of the FOIA and that EPA may release without further notice.

These regulations provide an express indication that we will not consider certain basic information (identified below) incorporated into EPA actions on petitions and submissions, as well as that same information as it appears in the submissions to EPA under 40 CFR part 80, subpart M, to be entitled to confidential treatment under Exemption 4 of the FOIA. This determination will apply prospectively to submissions and requests under the RFS program received by EPA after publication of the final rule, and EPA's decisions on those submissions and requests. In particular, the provisions of 40 CFR 80.1402 will apply to all submissions to EPA under 40 CFR part 80, subpart M, including, but not limited to: SREs submitted under 40 CFR 80.1441, small refiner exemptions under 40 CFR 80.1442, pathway petitions under 40 CFR 80.1416, and compliance demonstration reports. Accordingly, such information will be released to a FOIA requester upon request without further notice to the submitter if no other FOIA exemption applies and without following EPA's procedures set forth in 40 CFR part 2, subpart B. EPA may also elect to proactively release the information without further notice to the submitter and without following EPA's procedures set forth in 40 CFR part 2, subpart B. We are codifying this determination at 40 CFR 80.1402(c) and (d).

Through this action, we are providing an express indication that such information is not entitled to confidential treatment and may be affirmatively disclosed to the public without providing further notice to affected businesses. This action effectively serves as an advance confidentiality determination through rulemaking covering the information identified below. Accordingly, the provisions of 40 CFR 2.201 through 2.215 and 2.301 do not apply to the specified information submitted under this part that is determined through this rulemaking not to qualify for confidential treatment. In particular, the information affected by this action is the submitter's name, the name and location of the facility, the date the submission was transmitted to EPA, any EPA-issued company or facility identification numbers associated with the submission, the general nature or purpose of the submission, and the relevant time period for the submission as applicable. Additionally, for submissions making requests that EPA must adjudicate (*e.g.,* new pathway petitions, petitions for exemptions or compliance flexibility, etc.), under this action, once we have adjudicated the request, we may release the following information: the submitter's name; the name and location of the facility; the date the request was transmitted to EPA; any EPA-issued company or facility identification numbers associated with the request, the general nature or purpose of the request, the relevant time period for the request, the extent to which EPA either granted or denied the request (*i.e.,* whether EPA grants a request in part and the portions granted and denied, but not EPA's basis for the decision or any information that is not provided in 40 CFR 80.1402(d)), and any relevant terms and conditions. For information submitted under 40 CFR part 80, subpart M, and not specified in the regulations at 40 CFR 80.1402, EPA will continue to evaluate such CBI claims in accordance with 40 CFR part 2, subpart B.

It is appropriate to release the information described above in the interest of transparency and to provide the public with information about entities seeking exemptions or requests under part 80, subpart M. This approach will also provide certainty to submitters regarding the release of information under 40 CFR part 80, subpart M. With this advance notice, each submitter will have certainty regarding how EPA will treat the information specified above, and, as applicable, have the discretion to decide whether to make such a request with the understanding that EPA will release certain information about the request without further notice to the submitter.

E. Clarifying the Definition of ''Agricultural Digester''

We are finalizing as proposed our clarifying amendments for the definition of ''agricultural digester'' in 40 CFR 80.1401. Row Q in Table 1 to 40 CFR 80.1426 makes renewable compressed natural gas, renewable liquefied natural gas, and renewable electricity eligible to generate cellulosic biofuel (D3) RINs if the fuel is produced from, among other feedstocks, biogas from agricultural digesters (and if the producer meets all other applicable requirements under the RFS program). An agricultural digester was previously defined at 40 CFR 80.1401 as ''an anaerobic digester that processes predominantly cellulosic materials, including animal manure, crop residues, and/or separated yard waste.'' In the preamble to the Pathways II final rule, we explained that predominantly cellulosic materials are materials that are at least 75 percent cellulose, hemi-cellulose or lignin by mass.[266] In the proposed rule, we

[266] The Pathways II final rule contained a list of feedstocks EPA determined are ''predominately cellulosic feedstocks'': ''Crop residue, slash, pre-commercial thinnings and tree residue, switchgrass, miscanthus, Arundo donax, Pennisetum purpureum, and biogas from landfills, municipal wastewater treatment facility digesters, agricultural digesters, and separated MSW digesters'' (79 FR 42130–31, July 18, 2014). EPA further determined that feedstocks with minimum average adjusted

Continued

proposed clarifying amendments to the definition of ''agricultural digester'' based on multiple questions we have received from stakeholders asking if they could generate D3 RINs for biogas produced in a digester if materials that are not predominantly cellulosic are used in the digester. We are finalizing revisions to the definition of agricultural digester to clarify that only animal manure, crop residues, and/or separated yard waste with an adjusted cellulosic content of at least 75 percent can be processed in such a digester, and that each and every material processed in an agricultural digester must have an adjusted cellulosic content of at least 75 percent. This revision does not change our interpretation or implementation of the applicable requirements but will make it easier for the regulated community to understand the extant limitations on generating D3 RINs for biogas produced in agricultural digesters.

The preamble to the Pathways II rule makes it clear that the term ''predominantly cellulosic'' means that eligible feedstocks must contain a cellulosic content of at least 75 percent, and that this term does not authorize renewable fuel producers to introduce non-predominantly cellulosic materials into an agricultural digester. In the Pathways II rulemaking, we analyzed what we understood to be the most common inputs—animal manure, crop residues, and separated yard waste—and determined that all are predominantly cellulosic.[267] Consistent with this understanding and analysis, we narrowly defined ''agricultural digester'' based on use of these three feedstocks. Allowing other materials into the digester or any materials that are not at least 75 percent cellulosic would therefore be inconsistent with the analysis underlying the rule and the definition of agricultural digester.

In addition to maintaining consistency with the Pathways II analysis, limiting the feedstocks that can be used in an agricultural digester to animal manure, crop residue, and separated yard waste also makes implementation and oversight of pathways that include biogas from agricultural digesters much more straightforward. Specifically, because EPA has already determined that these three renewable biomass feedstocks are predominantly cellulosic, no further steps are needed to demonstrate that 100 percent of the fuel produced from a digester that is limited to animal manure, crop residue, and separated yard waste is eligible to generate cellulosic RINs. Our clarification of the definition of agricultural digester does not, however, mean that parties cannot generate D3 RINs for biogas produced from other feedstocks or in other types of digesters (*e.g.,* municipal wastewater treatment facility digesters, separated MSW digesters, or other waste digesters that convert the cellulosic components of biomass to biogas). The existing pathways allow D3 RINs to be generated for renewable compressed natural gas, renewable liquified natural gas, and renewable electricity produced from ''biogas from the cellulosic components of biomass processed in other waste digesters'' under Row Q of Table 1 to 40 CFR 80.1426. For example, if the only renewable biomass inputs to an ''other waste digester'' are all predominantly cellulosic, the resulting fuel would be eligible to generate 100 percent D3 RINs, even though the digester may not be an ''agricultural digester.'' If one or more of the inputs to an ''other waste digester'' are not predominantly cellulosic, the resulting fuel may be eligible to generate D3 RINs for only the portion of the fuel that was demonstrated to be produced from cellulosic biomass through proper testing and D5 RINs for the rest of the fuel produced (under the pathway contained in Row T) as specified at 40 CFR 80.1426(f)(15)(i)(B).

Thus, the ability to generate cellulosic RINs for 100 percent of the fuel produced under the pathway in row Q is predicated on the assumption and associated requirement that all the inputs to a digester are predominantly cellulosic. In order to maintain the streamlined approach to qualifying the output of an agricultural digester as 100 percent cellulosic, we are revising the definition to provide an exclusive list of the feedstocks that such digesters may process, as well as to clarify that each and every material processed in an agricultural digester must have an adjusted cellulosic content of at least 75 percent. These revisions are consistent with the RFS regulations and the analyses undertaken for the Pathway II rule that formed the basis for the agricultural digester pathways. They are a clarification of the regulatory text, but not a change in our interpretation of our existing regulations or practice in implementing them. The revisions additionally clarify that a digester that processes a material that is less than 75 percent cellulosic content is not an agricultural digester, even if the total cellulosic content of all the processed materials taken together exceeds the 75 percent threshold.

F. Definition of ''Produced From Renewable Biomass''

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. The purpose of this proposed definition was to provide additional clarity on what fuels qualify as renewable fuel, in alignment with the statutory and regulatory definition of renewable fuel and our pre-existing interpretation of the statute and regulations. The RFS regulations include formulas to determine the number of gallon-RINs generated for fuel that is produced by co-processing renewable biomass and non-renewable feedstocks simultaneously to produce a fuel based on the share of the feedstock energy that is from renewable biomass.[268] Thus, the proposed definition was intended merely to reinforce what the regulations at 40 CFR 80.1426(f)(4) already require—that the RIN generator must base the RINs generated for a renewable fuel on the energy coming from the renewable biomass used to produce the fuel.

We received many comments on this proposed definition. Given the breadth and depth of these comments, we require additional time to consider these comments and are not finalizing a definition of ''produced from renewable biomass'' in this rule. During the pendency of our consideration, we will continue to implement our long-standing interpretation of the existing requirements at 40 CFR 80.1426(f)(4) as described above.

G. Esterification Pathway

We are adding ''esterification'' as a production process in rows F and H of Table 1 to 40 CFR 80.1426. This addition makes biodiesel, renewable diesel, heating oil, or jet fuel produced from a qualifying renewable biomass feedstock through an esterification process eligible for BBD (D4) or advanced biofuel (D5) RINs. We expect this revision to primarily result in D4 RIN generation for biodiesel produced from FFA feedstock through an esterification process.[269]

In the 2020 proposed rule, we proposed to revise rows F and H of Table 1 to 40 CFR 80.1426 by changing the existing process ''Trans-

cellulosic content of 75 percent, measured on a dry mass basis, were ''predominantly cellulosic,'' meaning fuel produced from these feedstocks would be eligible to generate 100 percent cellulosic RINs.

[267] 79 FR 42128, 42140 (July 18, 2014).

[268] The regulations at 40 CFR 80.1426(f)(4) specifying that RIN generation is based on the feedstock energy of the renewable biomass were established in the March 2010 RFS2 final rule.

[269] FFA feedstock is a biointermediate, as discussed in Section VII.C.3.b.

Esterification'' to be ''Transesterification with or without esterification pretreatment'' and adding ''esterification'' as eligible production processes.[270] In the 2020 final rule, we added ''Transesterification with or without esterification pretreatment'' to rows F and H of Table 1 to 80.1426, but we did not add the standalone esterification pathway at that time, stating that the standalone esterification process, which uses FFA feedstocks, ''remains under consideration and may be finalized in a future action.'' [271]

In the 2020–2022 proposed rule, we indicated that if we finalized the biointermediate program and included FFA feedstocks in the definition of biointermediate, then we would also finalize the standalone esterification pathway previously proposed in the 2020 proposed rule.[272] This final rule includes FFA feedstocks as one of the biointermediates specifically included in the definition of biointermediate. Thus, as stated in the proposed rule, we are finalizing the standalone esterification pathway.

The most commonly used method to produce biodiesel is transesterification, which involves reacting triglycerides with methanol, typically under the presence of a base catalyst.[273] While the main component of renewable biomass feedstocks that are fats, oils, and greases is typically triglycerides, other components, such as FFA, can also exist. Removal or conversion of the FFA from the fat, oil, or grease is important where the traditional base-catalyzed transesterification production process is used because FFA will inhibit the transesterification reaction. Esterification can be used either as a pre-treatment step or as a direct standalone process to convert FFA feedstocks to biodiesel. When esterification is used as a pre-treatment step, the FFA is converted through acid esterification and then followed with the traditional base-catalyzed transesterification of triglycerides. When standalone esterification is used, the FFA feedstock is converted directly to biodiesel via acid esterification.

H. Technical Amendments

We are making numerous technical amendments to the RFS regulations. These amendments are being made to correct minor inaccuracies, clarify, and update the current regulations. These changes are described in Table VIII.H–1 below.

TABLE VIII.H–1—MISCELLANEOUS TECHNICAL AMENDMENTS TO RFS REGULATIONS

Part and section of title 40	Description of amendment
80.1401	Amended by revising the definition of ''Foreign renewable fuel producer'' to mirror the regional applicability requirement in § 80.1426(b)(1) and clarifying that foreign ethanol producers are considered foreign renewable fuel producers, consistent with this action's biointermediate provisions.
80.1401	Amended by revising the definition of ''Renewable fuel'' to reiterate that undenatured ethanol is not renewable fuel.
80.1401, 80.1426(f)(5)(i)–(iii), (f)(5)(iv)(A) and (B), and (f)(5)(v), 80.1450(b)(1)(vii)(A) and (B) and (b)(1)(viii), 80.1451(b)(1)(ii)(R), and 80.1454(j).	Amended by moving the definitions of ''Separated yard waste,'' ''Separated food waste,'' and ''Separated municipal solid waste'' from § 80.1426(f)(5) to the RFS definitions section (§ 80.1401) and updating associated cross-references.
80.1401, 80.1426(f)(17)(i), 80.1450(b)(1)(xii), 80.1451(b)(1)(ii)(T), 80.1454(l), and 80.1468(b).	Amended by updating the incorporation by reference (IBR) for ''Standard Specification for Diesel Fuel,'' ASTM D975–13a, to now be ASTM D975–21, which is the most recent ASTM version.
80.1401 and 80.1468(b)	Amended by updating the IBR for ''Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels,'' ASTM D6751–09, to now be ASTM D6751–20a, which is the most recent ASTM version.
80.1401 and 80.1471(c)	Amended by adding a definition of ''Professional liability insurance'' consistent with its definition in 31 CFR 50.5(q) and removing the previous cross-reference to this definition in § 80.1471(c).
80.1426(f)(7)(v)(A) and 80.1468(b).	Amended by updating the IBR for ''Standard Test Methods for Analysis of Wood Fuels,'' ASTM E870–82(2006), to now be ASTM E870–82(2019), which is the most recent ASTM version.
80.1426(f)(7)(v)(B) and 80.1468(b).	Amended by updating the IBR for ''Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials,'' ASTM D4442–07, to now be ASTM D4442–20, which is the most recent ASTM version.
80.1426(f)(7)(v)(B) and 80.1468(b).	Amended by updating the IBR for ''Standard Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Meters,'' ASTM D4444–08, to now be ASTM D4444–13 (2018), which is the most recent ASTM version.
80.1426(f)(8)(ii)(B) and 80.1468(b).	Amended by updating the IBR for ''Standard Guide for the Use of the Joint American Petroleum Institute (API) and ASTM Adjunct for Temperature and Pressure Volume Correction Factors for Generalized Crude Oils, Refined Products, and Lubricating Oils: API Manual of Petroleum Measurement Standards (MPMS) Chapter 11.1,'' ASTM D1250–08, to now be ASTM D1250–19e1, which is the most recent ASTM version.
80.1426(f)(9)(ii), 80.1430(e)(2), and 80.1468(b).	Amended by updating the IBR for ''Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis,'' ASTM D6866–08, to now be ASTM D6866–22, which is the most recent ASTM version.
80.1426(f)(17)(i)	Amended by adding ''renewable gasoline,'' consistent with other related sections.
80.1426(f)(17)(i)(B)(*1*) and (*2*), 80.1450(b)(1)(xii)(B) and (C), 80.1451(b)(1)(ii)(T)(*1*), and 80.1454(l)(1).	Amended by replacing ''diesel'' with ''distillate'' to clarify that parties that blend renewable jet fuel with conventional jet fuel must currently comply with these requirements. This would remove perceived ambiguity over whether these provisions apply to producers of blended renewable jet fuel (jet fuel is not diesel fuel per the definition of ''diesel fuel'' at 40 CFR 80.2 but rather distillate fuel).

[270] 84 FR 36801 (July 29, 2019).

[271] 85 FR 7016, 7058 (February 6, 2020).

[272] 86 FR 72473 (December 21, 2021).

[273] Commonly used base catalysts include sodium hydroxide (NaOH), potassium hydroxide (KOH), and sodium methoxide ($NaOCH_3$).

TABLE VIII.H–1—MISCELLANEOUS TECHNICAL AMENDMENTS TO RFS REGULATIONS—Continued

Part and section of title 40	Description of amendment
80.1428(b)(2)	Amended to be consistent with the restriction that independent third-party auditors may not own RINs under § 80.1471(a)(3).
80.1429(b)(9)	Amended to limit the number of RINs that a party can separate when they incur an RVO due to redesignating certified-NTDF under § 80.1408. This is consistent with similar situations involving exporters of renewable fuel or importers of gasoline and diesel fuel.
80.1450(g)(11)(ii), 80.1473(f), 80.1474(b)(2) and (3), (b)(4)(i)(C), and (b)(4)(ii)(C).	Amended by updating the email address for EPA's EMTS help desk to *fuelsprogramsupport@epa.gov.*
80.1450(h)(2)(i)	Amended by changing the time for responding to EPA's notice of intent to deactivate a company's registration from 14 to 30 calendar days to allow additional time for company action.
80.1451(b)(1)(ii)(T)(*2*) and 80.1454(l)(3).	Amended to clarify reporting instructions and move the affidavit requirement from the reporting section (§ 80.1451) to the recordkeeping section (§ 80.1454).
80.1460(b)(6)	Amended to clarify that generating a RIN for fuel for which RINs have previously been generated is not a prohibited act if those RINs were generated pursuant to § 80.1426(c)(6).
80.1464(a)(3)(ii), (b)(3)(ii), and (c)(2)(ii).	Amended to modify the attest engagements requirements to be consistent with the RIN activity report requirements in § 80.1451(c)(2).
80.1464(a)(4)(ii), (b)(5)(ii), and (c)(3)(ii) and 80.1475(a)(2) and (d)(4).	Amended by updating outdated references to expired provisions of part 80 to part 1090.
80.1464(a)(7), (b)(8), (c)(7), (i)(1)(i), and (i)(2)(i).	Amended to add the requirement that the attest auditor verifies the submission of required compliance reports and states as a finding any compliance reports missing.
80.1464(b)(4)(i) and (iii)	Amended to modify the requirements to include verification of last date of independent third-party engineering review as occurring within the three-year cycle under § 80.1450(d)(3).
80.1469(c)(1)(vii)	Amended to modify the requirements for Quality Assurance Plans to allow for a renewable fuel for which RINs were previously generated to be used as a feedstock if done in accordance with § 80.1426(c)(6).
80.1471(c)	Amended to correct an erroneous reference to 31 CFR 50.5(q) to now be 31 CFR 50.4(t), and to allow comparable financial strength ratings if acceptable to EPA.
80.1475(d)(1) and (3)	Amended by correcting erroneous references to paragraph (b) to now be to paragraph (c).

IX. Statutory and Executive Order Reviews

Additional information about these statutes and Executive orders can be found at *http://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 RIA, available in the docket for this action.

B. Paperwork Reduction Act (PRA)

The information collection activities in this 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 2691.02. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

The information to be collected is necessary to implement the inclusion of biointermediates to the RFS program. Biointermediate producers and importers will be added as respondents and certain existing respondents (*e.g.,* renewable fuel producers) may have additional reporting and recordkeeping requirements related to their use of biointermediates. Recordkeeping and reporting requirements include the registration of biointermediate producers and their facilities; product transfer documentation; records retention related to the production, transfer, and use of biointermediates; annual attest engagements; quality assurance plans for biointermediates; and the submission of information related to renewable fuels produced using biointermediates. These items are discussed in detail in the supporting statement in the docket.

Respondents/affected entities: Biointermediate producers, renewable fuel producers, biointermediate importers, and third parties who submit reports for these parties.

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

Estimated number of respondents: 5,052.

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

Total estimated burden: 167,385 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: $9,262,146 (per year), all of which is 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 EPA's regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, EPA will announce that approval in the **Federal Register** and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, EPA concludes that the impact of concern for this rule is any significant adverse economic impact on small entities and that the agency is certifying that this rule will not have a significant economic impact on a substantial number of small entities if

the rule has no net burden on the small entities subject to the rule.

With respect to the biointermediate provisions, participation in the biointermediates program is purely voluntary. We do not believe that a small biointermediate producer or renewable fuel producer will choose to take advantage of the biointermediate program unless there is sufficient economic incentive for them to do so. Current small renewable fuel producers will not be compelled to use biointermediates, and as such, any costs associated with these provisions are also purely voluntary. Also, the biointermediates program will create new opportunities for small entities that may be able to build smaller operations than a full-scale renewable fuel production facility. 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 makes relatively minor corrections and modifications to those regulations. As such, we do not anticipate that there will be any significant adverse economic impact on directly regulated small entities as a result of these provisions.

The small entities directly regulated by the annual percentage standards associated with the RFS volumes are small refiners, which are defined at 13 CFR 121.201. With respect to the 2020, 2021, and 2022 percentage standards and 2022 supplemental standard, we have evaluated the impacts on small entities from two perspectives: as if the standards were a standalone action or if they are a part of the overall impacts of the RFS program as a whole.

To evaluate the impacts of the volume requirements on small entities, we have conducted a screening analysis [274] 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.[275] 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. Even if we were to assume that the cost of acquiring RINs was not recovered by obligated parties, a cost-to-sales ratio test shows that the costs to small entities of the RFS standards established in this action are far less than 1 percent of the value of their sales.[276]

While the screening analysis described above supports a certification that this rule will not have a significant economic impact on small refiners, we continue to believe that it is more appropriate to consider the standards as a part of our ongoing implementation of the overall RFS program. When considered this way, the impacts of the RFS program as a whole on small entities were addressed in the RFS2 final rule, which was the rule that implemented the entire program as required by EISA 2007.[277] As such, the Small Business Regulatory Enforcement Fairness Act (SBREFA) panel process that took place prior to the 2010 rule was also for the entire RFS program and looked at impacts on small refiners through 2022.

For the SBREFA process for the RFS2 final rule, we conducted outreach, fact-finding, and analysis of the potential impacts of the program on small refiners, which are all described in the Final Regulatory Flexibility Analysis, located in the rulemaking docket (EPA–HQ–OAR–2005–0161). This analysis looked at impacts to all refiners, including small refiners, through the year 2022 and found that the program would not have a significant economic impact on a substantial number of small entities, and that this impact was expected to decrease over time, even as the standards increased. For gasoline and/or diesel small refiners subject to the standards, the analysis included a cost-to-sales ratio test, a ratio of the estimated annualized compliance costs to the value of sales per company. From this test, we estimated that all directly regulated small entities would have compliance costs that are less than one percent of their sales over the life of the program (75 FR 14862, March 26, 2010).

We have determined that this final rule will not impose any additional requirements on small entities beyond those already analyzed, since the impacts of this rule are not greater or fundamentally different than those already considered in the analysis for the RFS2 final rule assuming full implementation of the RFS program. The cellulosic biofuel, advanced biofuel, and total renewable fuel volumes remain significantly below the statutory volume targets analyzed in the RFS2 final rule. Compared to the burden that would be imposed under the volumes that we assessed in the screening analysis for the RFS2 final rule (*i.e.,* the volumes specified in the CAA), the volume requirements in this rule reduce burden on small entities. Regarding the BBD standard, it is a nested standard within the advanced biofuel category, and as discussed in Section III.F, the 2022 BBD volume requirement is below the volume of BBD that is anticipated to be produced and used to satisfy the advanced biofuel and total renewable fuel requirements. In other words, the volume of BBD actually used in 2022 will be driven not by the 2022 BBD standard, but rather by the 2022 advanced biofuel and total renewable fuel standards. The net result of the standards being promulgated in this action is a reduction in burden as compared to implementation of the statutory volume targets assumed in the RFS2 final rule analysis.

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 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 final rule will not change the compliance flexibilities currently offered to small entities under the RFS program and available information shows that the impact on small entities

[274] See Chapter 11 of the RIA.

[275] For a further discussion of the ability of obligated parties to recover the cost of RINs see ''Denial of Petitions for Rulemaking to Change the RFS Point of Obligation,'' EPA–420–R–17–008, November 2017; ''April 2022 Denial of Petitions for RFS Small Refinery Exemptions,'' EPA–420–R–22–005, April 2022; ''June 2022 Denial of Petitions for RFS Small Refinery Exemptions,'' EPA–420–R–22–011, June 2022.

[276] A cost-to-sales ratio of 1 percent represents a typical agency threshold for determining the significance of the economic impact on small entities. See ''Final Guidance for EPA Rulewriters: Regulatory Flexibility Act as amended by the Small Business Regulatory Enforcement Fairness Act,'' November 2006.

[277] 75 FR 14670 (March 26, 2010).

from implementation of this rule will not be significant when viewed either from the perspective of it being a standalone action or a part of the overall RFS program. We have therefore concluded that this action will have no net regulatory burden for all directly regulated small entities.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of $100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. This action implements mandates specifically and explicitly set forth in CAA section 211(o), and we believe that this action represents the least costly, most cost-effective approach to achieve the statutory requirements.

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

EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive order. This action is not subject to Executive Order 13045 because it implements specific standards established by Congress in statutes (CAA section 211(o)). While this action is not covered by Executive Order 13045, a discussion of environmental health impacts is included in Chapter 3 of the RIA.

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 establishes the required renewable fuel content of the transportation fuel supply for 2020, 2021, and 2022 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) and 1 CFR Part 51

This action involves technical standards. We are updating the existing test methods and standards in the RFS regulations to more recent versions. In accordance with the requirements of 1 CFR 51.5, we are incorporating by reference the use of test methods and standards from ASTM International. A detailed discussion of these test methods and standards can be found in Section VIII.H. The standards and test methods may be obtained through the ASTM International website (*www.astm.org*) or by calling ASTM International at (877) 909–2786. (In addition to the standards and test methods listed below, ASTM E711 is also referenced in the regulatory text of this final rule. It was approved for IBR as of July 1, 2010, and no changes are being finalized.)

TABLE IX.I–1—STANDARDS AND TEST METHODS TO BE INCORPORATED BY REFERENCE

Organization and standard or test method	Description
ASTM D975–21, Standard Specification for Diesel Fuel, approved August 1, 2021.	Diesel fuel specifications that must be met to qualify for RINs for renewable fuels.
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.	Standard guide used by industry for determining temperature corrected standardized volumes under the RFS program.
ASTM D4442–20, Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials, approved March 1, 2020.	Test method used for determining moisture content of wood samples that must be met when qualifying for RINs for renewable fuels.
ASTM D4444–13 (2018), Standard Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Meters, reapproved July 1, 2018.	Test method used for determining moisture content of wood samples that must be met when qualifying for RINs for renewable fuels.
ASTM D6751–20a, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, approved August 1, 2020.	Biodiesel fuel specifications that must be met to qualify for RINs for renewable fuels.
ASTM D6866–22, Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis, approved March 15, 2022.	Radiocarbon dating test method to determine the renewable content of transportation fuel.
ASTM E870–82 (2019), Standard Test Methods for Analysis of Wood Fuels, reapproved April 1, 2019.	Test method that covers the proximate and ultimate analysis of wood fuels, as well as the determination of the gross caloric value of wood sampled and prepared by prescribed test methods and analyzed according to ASTM established procedures that must be met when qualifying for RINs for renewable fuels.

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

Due to time constraints and uncertainty about where impacts are likely to occur, EPA is able to evaluate only qualitatively the extent to which this action may result in 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). While there is the potential for GHG emission reductions as a result of this action, both positive and negative changes in air and water quality could also occur due to increases in biofuel production. Land use change to bring more corn, soy, or other crops into production in response to the action could also affect air, water, and soil quality in specific locations. These environmental changes, combined with future climate change impacts, may be unevenly distributed across geographies and thus affect different demographics, such as people of color, low income, or indigenous populations. Such effects are uncertain and challenging to predict on a granular spatial scale. A summary of our approach for considering potential EJ concerns as a result of this action can be found in Section I.J, 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 Chapter 8 of the RIA, available in the docket for this action.

K. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is a ''major rule'' as defined by 5 U.S.C. 804(2).

X. 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 amends 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. Add § 80.11 to read as follows:

§ 80.11 Confidentiality of information.

(a) Except as specified in paragraph (b) of this section, information obtained by the Administrator or his representatives pursuant to this part shall be treated, in so far as its confidentiality is concerned, in accordance with the provisions of 40 CFR part 2, subpart B.

(b) Information contained in EPA notices of violation, settlement agreements, administrative complaints, civil complaints, criminal information, and criminal indictments is not entitled to confidential treatment and therefore EPA may publicly disclose such information. Such information includes the company name and EPA-issued company identification number, the facility name and EPA-issued facility identification number, the total quantity of fuel and parameter, the time or time period when the violation occurred, information relating to the generation, transfer, or use of credits, and any other information relevant to describing the violation.

Subpart M—Renewable Fuel Standard

■ 3. Amend § 80.1401 by:

■ a. Revising the definition of ''Agricultural digester'';

■ b. Adding in alphabetical order the definition of ''Approved pathway'';

■ c. Revising the definition of ''Baseline volume'';

■ d. Adding in alphabetical order the definition of ''Biocrude'';

■ e. Revising the definition of ''Biodiesel'';

■ f. Adding in alphabetical order the definitions of ''Biodiesel distillation bottoms'', ''Biointermediate'', ''Biointermediate import facility'', ''Biointermediate importer'', ''Biointermediate producer'', ''Biointermediate production facility'', and ''Biomass-based sugars'';

■ g. Revising the definitions of ''Combined heat and power (CHP)'' and ''Co-processed'';

■ h. Adding in alphabetical order the definition of ''Digestate'';

■ i. Revising the definitions ''Facility'' and ''Foreign renewable fuel producer'';

■ j. Adding in alphabetical order the definitions of ''Free fatty acid (FFA) feedstock'' and ''Glycerin'';

■ k. Revising paragraph (1) in the definition of ''Non-ester renewable diesel'' and the definition of ''Non-renewable feedstock'';

■ l. Adding in alphabetical order the definition of ''Professional liability insurance'';

■ m. Revising the definitions of ''Quality assurance audit'' and ''Quality assurance plan'', paragraph (7) in the definition of ''Renewable biomass'', and the introductory text and paragraph (1)(i) in the definition of ''Renewable fuel''; and

■ m. Adding in alphabetical order the definitions of ''Separated food waste'', ''Separated municipal solid waste (MSW)'', ''Separated yard waste'', ''Soapstock'', and ''Undenatured ethanol''.

The revisions and additions read as follows:

§ 80.1401 Definitions.

* * * * *

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%.

* * * * *

Approved pathway means a pathway listed in Table 1 to § 80.1426 or in a petition approved under § 80.1416.

* * * * *

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.

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 § 80.1468).

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

* * * * *

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.

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

* * * * *

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.

* * * * *

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.

* * * * *

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.

* * * * *

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).

* * * * *

Foreign renewable fuel producer means a person from a foreign country or from an area outside the covered locations 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.

* * * * *

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.

* * * * *

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

* * * * *

Non-ester renewable diesel * * *

(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 § 80.1468) and can be used in an engine designed to operate on conventional diesel fuel; or

* * * * *

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

* * * * *

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.

* * * * *

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.

* * * * *

Renewable biomass * * *

(7) Separated yard waste or food waste, including recycled cooking and trap grease.

* * * * *

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.

* * * * *

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.

* * * * *

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.

* * * * *

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.

* * * * *

■ 4. Revise § 80.1402 to read as follows:

§ 80.1402 Availability of information; confidentiality of information.

(a) Beginning January 1, 2020, no claim of business confidentiality may be asserted by any person with respect to information submitted to EPA under § 80.1451(c)(2)(ii)(E), whether submitted electronically or in paper format.

(b) The following information contained in EPA determinations that RINs are invalid under § 80.1474(b)(4)(i)(C)(*2*) and (b)(4)(ii)(C)(*2*), notices of violation, settlement agreements, administrative complaints, civil complaints, criminal information, and criminal indictments arising under this subpart is not entitled to confidential treatment and the provisions of 40 CFR 2.201 through 2.215 and 2.301 do not apply:

(1) The company name.

(2) The name and location of the facility at which the fuel associated with the RINs in question was allegedly produced or imported.

(3) The EPA-issued company or facility identification number of the party that produced the fuel or generated the RINs in question.

(4) The total quantity of fuel and RINs in question.

(5) The time period when the fuel was allegedly produced.

(6) The time period when the RINs in question were generated.

(7) The batch number(s) and the D code(s) of the RINs in question.

(8) Information relating to the generation, transfer, or use of RINs.

(9) The shortfall in RINs related to an obligated party's failure to meet its renewable volume obligation.

(10) Any other information relevant to describing the violation.

(c) The following information contained in submissions under this subpart is not entitled to confidential treatment and the provisions of 40 CFR 2.201 through 2.215 and 2.301 do not apply:

(1) Submitter's name.

(2) The name and location of the facility, if applicable.

(3) The date the submission was transmitted to EPA.

(4) Any EPA-issued company or facility identification numbers associated with the submission.

(5) The purpose of the submission.

(6) The relevant time period for the submission, if applicable.

(d) The following information incorporated into EPA determinations on submissions under this subpart is not entitled to confidential treatment and the provisions of 40 CFR 2.201 through 2.215 and 2.301 do not apply:

(1) Submitter's name.

(2) The name and location of the facility, if applicable.

(3) The date the submission was transmitted to EPA.

(4) Any EPA-issued company or facility identification numbers associated with the submission.

(5) The purpose of the submission.

(6) The relevant time period of the submission, if applicable.

(7) The extent to which EPA granted or denied the request and any relevant terms and conditions.

(e) Except as otherwise specified in this section, any information submitted under this part claimed as confidential remains subject to evaluation by EPA under 40 CFR part 2, subpart B.

(f) EPA may disclose the information specified in paragraphs (a) through (d) of this section on its website, or otherwise make it available to interested parties, without additional notice or process, notwithstanding any claims that the information is entitled to confidential treatment under 40 CFR part 2, subpart B.

■ 5. Amend § 80.1405 by revising paragraph (a)(11) and adding paragraphs (a)(12) and (13) to read as follows:

§ 80.1405 What are the Renewable Fuel Standards?

(a) * * *

(11) *Renewable Fuel Standards for 2020.* (i) The value of the cellulosic biofuel standard for 2020 shall be 0.32 percent.

(ii) The value of the biomass-based diesel standard for 2020 shall be 2.30 percent.

(iii) The value of the advanced biofuel standard for 2020 shall be 2.93 percent.

(iv) The value of the renewable fuel standard for 2020 shall be 10.82 percent.

(12) *Renewable Fuel Standards for 2021.* (i) The value of the cellulosic biofuel standard for 2021 shall be 0.33 percent.

(ii) The value of the biomass-based diesel standard for 2021 shall be 2.16 percent.

(iii) The value of the advanced biofuel standard for 2021 shall be 3.00 percent.

(iv) The value of the renewable fuel standard for 2021 shall be 11.19 percent.

(13) *Renewable Fuel Standards for 2022.* (i) The value of the cellulosic biofuel standard for 2022 shall be 0.35 percent.

(ii) The value of the biomass-based diesel standard for 2022 shall be 2.33 percent.

(iii) The value of the advanced biofuel standard for 2022 shall be 3.16 percent.

(iv) The value of the renewable fuel standard for 2022 shall be 11.59 percent.

(v) The value of the supplemental total renewable fuel standard for 2022 shall be 0.14 percent.

* * * * *

■ 6. Amend § 80.1407 by revising paragraph (f)(1) to read as follows:

§ 80.1407 How are the Renewable Volume Obligations calculated?

* * * * *

(f) * * *

(1) Any renewable fuel. Renewable fuel for which a RIN is invalidly generated under § 80.1431 may not be excluded from a party's renewable volume obligations.

* * * * *

§ 80.1408 [Amended]

■ 7. Amend § 80.1408(a)(2)(i)(B) and (a)(2)(ii)(B) by removing ''§ 80.1454(t)'' and adding ''§ 80.1454(o)'' in its place.

■ 8. Amend § 80.1415 by revising paragraphs (c)(2)(ii) and (iii) to read as follows:

§ 80.1415 How are equivalence values assigned to renewable fuel?

* * * * *

(c) * * *

(2) * * *

(ii) For each feedstock, biointermediate, component, or additive

that is used to make the renewable fuel, provide a description, the percent input, and identify whether or not it is renewable biomass or is derived from renewable biomass.

(iii) For each feedstock or biointermediate that also qualifies as a renewable fuel, state whether or not RINs have been previously generated for such feedstock.

* * * * *

■ 9. Amend § 80.1416 by revising paragraphs (b)(1)(ii) and (iii) to read as follows:

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

* * * * *

(b)(1) * * *

(ii) A technical justification that includes a description of the renewable fuel, feedstock(s), and biointermediate(s) used to make it, and the production process. The justification must include process modeling flow charts.

(iii) A mass balance for the pathway, including feedstocks and biointermediates, fuels produced, co-products, and waste materials production.

* * * * *

■ 10. Amend § 80.1426 by:

■ a. Adding paragraph (a)(4);

■ b. Removing the headings from paragraphs (c)(2) and (3);

■ c. Adding paragraph (c)(8);

■ d. Revising paragraph (f)(1);

■ e. Immediately following paragraph (f)(1), in table 1 to § 80.1426 revising entries F and H;

■ f. Revising paragraph (f)(3)(vi);

■ g. Revising the heading of paragraph (f)(4);

■ h. In paragraph (f)(4)(i)(A)(*1*), revising the definitions of ''FE_R'' and ''FE_{NR}'';

■ i. Adding paragraph (f)(4)(iv);

■ j. Revising and republishing paragraph (f)(5);

■ k. Revising paragraphs (f)(7)(v)(A) and (B), (f)(8)(ii)(B), (f)(9)(ii), (f)(15)(i) introductory text, and (f)(16)(iii);

■ l. Adding a heading to paragraph (f)(17);

■ m. Revising paragraphs (f)(17)(i) introductory text and (f)(17)(i)(B)(*1*) and (*2*).

The additions and revisions read as follows:

§ 80.1426 How are RINs generated and assigned to batches of renewable fuel?

(a) * * *

(4) Where a feedstock or biointermediate is used to produce renewable fuel and is not entirely renewable biomass, RINs may only be generated for the portion of fuel that is derived from renewable biomass, as calculated under paragraph (f)(4) of this section.

* * * * *

(c) * * *

(8) RINs must not be generated for a biointermediate.

* * * * *

(f) * * *

(1) *Applicable pathways.* (i) D codes shall be used in RINs generated by producers or importers of renewable fuel according to the pathways listed in Table 1 to this section, paragraph (f)(6) of this section, or as approved by the Administrator.

(ii) In choosing an appropriate D code, producers and importers may disregard any incidental, *de minimis* feedstock contaminants that are impractical to remove and are related to customary feedstock production and transport.

(iii) Tables 1 and 2 to this section do not apply to, and impose no requirements with respect to, volumes of fuel for which RINs are generated pursuant to paragraph (f)(6) of this section.

(iv) Pathways in Table 1 to this section and advanced technologies in Table 2 to this section also apply in cases where the renewable fuel producer is using a biointermediate.

(v) For the purposes of identifying the appropriate pathway in Table 1 to this section, biointermediates used for the production of renewable fuel are considered to be equivalent to the renewable biomass from which they were derived, with the following exceptions:

(A) Oil that is physically separated from any woody or herbaceous biomass and used to produce renewable fuel shall not generate D-code 3 or 7 RINs.

(B) Sugar or starch that is physically separated from cellulosic biomass and used to produce renewable fuel shall not generate D-code 3 or 7 RINs.

(vi) If a renewable fuel producer uses a biointermediate for the production of renewable fuel, additional requirements apply to both the renewable fuel producer and the biointermediate producer as described in § 80.1476.

TABLE 1 TO § 80.1426—APPLICABLE D CODES FOR EACH FUEL PATHWAY FOR USE IN GENERATING RINS

	Fuel type	Feedstock	Production process requirements	D-code
* *	*	* *	*	*
F	Biodiesel, renewable diesel, jet fuel and heating oil.	Soy bean oil; Oil from annual covercrops; Oil from algae grown photosynthetically; Biogenic waste oils/fats/greases; *Camelina sativa* oil; Distillers corn oil; Distillers sorghum oil; Commingled distillers corn oil and sorghum oil.	One of the following: Transesterification with or without esterification pre-treatment, Esterification, or Hydrotreating; excludes processes that co-process renewable biomass and petroleum.	4
* *	*	* *	*	*
H	Biodiesel, renewable diesel, jet fuel and heating oil.	Soy bean oil; Oil from annual covercrops; Oil from algae grown photosynthetically; Biogenic waste oils/fats/greases; *Camelina sativa* oil; Distillers corn oil; Distillers sorghum oil; Commingled distillers corn oil and sorghum oil.	One of the following: Transesterification with or without esterification pre-treatment, Esterification, or Hydrotreating; includes only processes that co-process renewable biomass and petroleum.	5
* *	*	* *	*	*

* * * * *

(3) * * *

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

Table 4 to §80.1426—Number of Gallon-RINs to Assign to Batch-RINs With D Codes Dependent on Feedstock

D Code to Use in Batch-RIN	Number of Gallon-RINs
D = 3	$V_{RIN,CB} = EV * V_S * \frac{FE_3}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}$
D = 4	$V_{RIN,BBD} = EV * V_S * \frac{FE_4}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}$
D = 5	$V_{RIN,AB} = EV * V_S * \frac{FE_5}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}$
D = 6	$V_{RIN,RF} = EV * V_S * \frac{FE_6}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}$
D = 7	$V_{RIN,CD} = EV * V_S * \frac{FE_7}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}$

Where:

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

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

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

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

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

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

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

FE_3 = Feedstock energy from all feedstocks or biointermediates whose pathways have been assigned a D code of 3 under an approved pathway, in Btu.

FE_4 = Feedstock energy from all feedstocks or biointermediates whose pathways have been assigned a D code of 4 under an approved pathway, in Btu.

FE_5 = Feedstock energy from all feedstocks or biointermediates whose pathways have been assigned a D code of 5 under an approved pathway, in Btu.

FE_6 = Feedstock energy from all feedstocks or biointermediates whose pathways have been assigned a D code of 6 under an approved pathway, in Btu.

FE_7 = Feedstock energy from all feedstocks or biointermediates whose pathways have been assigned a D code of 7 under an approved pathway, in Btu.

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

$$FE = M * (1 - m) * CF * E$$

Where:

FE = Feedstock or biointermediate energy, in Btu.

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

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

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

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

(4) *Renewable fuel that is produced by co-processing renewable biomass (including a biointermediate) and non-renewable feedstocks simultaneously to produce a fuel that is partially renewable.* (i) * * *

(A) * * *

(*1*) * * *

FE_R = Feedstock energy from renewable biomass (including the renewable portion of a biointermediate) used to make the transportation fuel, in Btu.

FE_{NR} = Feedstock energy from non-renewable feedstocks (including the non-renewable portion of a biointermediate) used to make the transportation fuel, heating oil, or jet fuel, in Btu.

* * * * *

(iv) RIN-generating parties must calculate RIN volume V_{RIN} for co-processed fuels produced from a biointermediate as described in paragraph (f)(4)(i)(B) of this section and calculate the renewable fraction of a fuel R using one of the following:

(A) Method B of ASTM D6866 (incorporated by reference, see § 80.1468) as described in paragraph (f)(9)(ii) of this section.

(B) If the renewable content of the co-processed fuel is 10 percent or greater, Method C of ASTM D6866 as described in paragraph (f)(9)(ii) of this section.

(C) Any other EPA-approved method under paragraph (f)(9)(ii) of this section.

(5) *Renewable fuel produced from separated yard waste, separated food waste, and separated MSW.* (i)(A) Separated yard waste is deemed to be composed entirely of cellulosic materials.

(B) Separated food waste is deemed to be composed entirely of non-cellulosic materials, unless a party demonstrates that a portion of the feedstock is cellulosic through approval of their facility registration.

(ii)(A) A feedstock qualifies as separated yard waste or separated food waste only if it is collected according to a plan submitted to and accepted by EPA under the registration procedures specified in § 80.1450(b)(1)(vii).

(B) A feedstock qualifies as separated MSW only if it is collected according to a plan submitted to and approved by EPA.

(iii) Separation and recycling actions for separated MSW are considered to occur if:

(A) Recyclable paper, cardboard, plastics, rubber, textiles, metals, and glass that can be recycled are separated and removed from the municipal solid waste stream to the extent reasonably practicable according to a plan submitted to and approved by U.S. EPA under the registration procedures specified in § 80.1450(b)(1)(viii); and

(B) The fuel producer has evidence of all contracts relating to the disposition of paper, cardboard, plastics, rubber, textiles, metals, and glass that are recycled.

(iv)(A) The number of gallon-RINs that shall be generated for a batch of renewable fuel derived from separated yard waste shall be equal to a volume V_{RIN} and is calculated according to the following formula:

$$V_{RIN} = EV * V_S$$

Where:

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

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

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

(B) The number of gallon-RINs that shall be generated for a batch of renewable fuel derived from separated food waste shall be equal to a volume V_{RIN} and is calculated according to the following formula:

$$V_{RIN} = EV * V_S$$

Where:

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

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

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

(v) The number of cellulosic biofuel gallon-RINs that shall be generated for the cellulosic portion of a batch of renewable fuel derived from separated MSW shall be determined according to the following formula:

$$V_{RIN} = EV * V_S * R$$

Where:

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

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

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

R = The calculated non-fossil fraction of the fuel as measured by a carbon-14 dating test method as provided in paragraph (f)(9) of this section, except that for biogas-derived fuels made from separated MSW, no testing is required and R = 1.

* * * * *

(7) * * *

(v) * * *

(A) ASTM E870 or ASTM E711 for gross calorific value (both incorporated by reference, see § 80.1468).

(B) ASTM D4442 or ASTM D4444 for moisture content (both incorporated by reference, see § 80.1468).

* * * * *

(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 § 80.1468).

* * * * *

(9) * * *

(ii) Parties must use Method B or Method C of ASTM D6866 (incorporated by reference, see § 80.1468), or an alternative test method as approved by EPA.

* * * * *

(15) * * *

(i) If a producer seeking to generate D code 3 or D code 7 RINs produces a single type of renewable fuel using two or more feedstocks 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:

* * * * *

(16) * * *

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

(17) *Qualifying use demonstration for certain renewable fuels.* (i) For purposes of this section, any renewable fuel other than ethanol, biodiesel, renewable gasoline, or renewable diesel that meets the Grade No. 1–D or No. 2–D specification in ASTM D975 (incorporated by reference, see § 80.1468) is considered renewable fuel and the producer or importer may generate RINs for such fuel only if all of the following apply:

* * * * *

(B) * * *

(*1*) 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.

(*2*) 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.

* * * * *

■ 11. Amend § 80.1428 by revising paragraph (b)(2) to read as follows:

§ 80.1428 General requirements for RIN distribution.

* * * * *

(b) * * *

(2) Unless otherwise specified, any person that has registered pursuant to § 80.1450 can own a separated RIN.

* * * * *

■ 12. Amend § 80.1429 by revising paragraph (b)(9) introductory text to read as follows:

§ 80.1429 Requirements for separating RINs from volumes of renewable fuel.

* * * * *

(b) * * *

(9) Except as provided in paragraphs (b)(2) through (5) and (8) of this section, parties whose non-export renewable volume obligations are solely related to the importation of products listed in § 80.1407(c) or (e), the addition of blendstocks into a volume of finished gasoline, finished diesel fuel, or BOB, or that incur a renewable volume obligation (RVO) under § 80.1408, can only separate RINs from volumes of renewable fuel if the number of gallon-RINs separated in a calendar year is less than or equal to a limit set as follows:

* * * * *

■ 13. Amend § 80.1430 by revising paragraph (e)(2) to read as follows:

§ 80.1430 Requirements for exporters of renewable fuels.

* * * * *

(e) * * *

(2) Determination of the renewable portion of the blend using Method B or Method C of ASTM D6866 (incorporated by reference, see § 80.1468), or an alternative test method as approved by the EPA.

* * * * *

■ 14. Amend § 80.1431 by adding paragraph (a)(3) to read as follows:

§ 80.1431 Treatment of invalid RINs.

(a) * * *

(3) If any RIN generated for a batch of renewable fuel produced using a biointermediate 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.

* * * * *

§ 80.1435 [Amended]

■ 15. Amend § 80.1435(a)(4) by removing ''§ 80.1454(u)'' and adding ''§ 80.1454(p)'' in its place.

■ 16. Amend § 80.1449 by revising paragraph (a)(4)(iii) to read as follows:

§ 80.1449 What are the Production Outlook Report requirements?

(a) * * *

(4) * * *

(iii) Feedstocks, biointermediates, and production processes to be used at each production facility.

* * * * *

■ 17. Amend § 80.1450 by:

■ a. Revising paragraphs (b) introductory text, (b)(1) introductory text, (b)(1)(i), and (b)(1)(ii) introductory text;

■ b. Adding paragraph (b)(1)(ii)(B);

■ c. Revising paragraphs (b)(1)(iii), (b)(1)(iv)(A)(*1*) and (*2*), (b)(1)(iv)(B)(*3*), (b)(1)(v)(B) and (C), (b)(1)(vii)(A) introductory text, (b)(1)(vii)(B) introductory text, (b)(1)(viii) introductory text, (b)(1)(viii)(B)(*1*) through (*3*), (b)(1)(xii) introductory text, (b)(1)(xii)(B), (b)(1)(xii)(C) introductory text, (b)(1)(xiii)(A), (b)(1)(xiii)(B) introductory text, (b)(1)(xiii)(B)(*1*) and (*5*), and (b)(1)(xv) introductory text;

■ d. Adding paragraph (b)(1)(xvi);

■ e. Revising paragraphs (b)(2)(i)(A) and (B), (b)(2)(ii)(A) through (C), (b)(2)(iv), and (d);

■ f. Adding a heading to paragraph (g); and

■ g. Revising the second sentence of paragraph (g) introductory text, paragraphs (g)(5) through (7) and (9) and (g)(10)(ii), the second sentence of paragraph (g)(11)(ii), (h)(1)(i), and the last sentence of paragraph (h)(2)(i).

The revisions and additions read as follows:

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

* * * * *

(b) *Producers.* Any RIN-generating foreign producer, any non-RIN-generating foreign producer, any domestic renewable fuel producer that generates RINs, or any biointermediate producer that transfers any biointermediate for the production of a renewable fuel for RIN generation, must provide EPA the information specified under 40 CFR 1090.805 if such information has not already been provided under the provisions of this part, and must receive EPA-issued company and facility identification numbers prior to the generation of any RINs for their fuel or for fuel made with their ethanol, or prior to the transfer of any biointermediate to be used in the production of a renewable fuel for which RINs may be generated. Unless otherwise specifically indicated, all the following registration information must be submitted to EPA at least 60 days prior to the intended generation of RINs or the intended transfer of any biointermediate to be used in the production of a renewable fuel for which RINs may be generated. Renewable fuel producers may generate RINs for a renewable fuel under this part after EPA has accepted their registration and they have met all other applicable requirements under this part.

(1) A description of the types of renewable fuels, 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, ethanol, or biointermediate the renewable fuel producer or foreign ethanol producer must also provide all the following:

(i)(A) A list of all the feedstocks and biointermediates the facility intends to utilize without significant modification to the existing facility.

(B) A description of the type(s) of renewable biomass that will be used as feedstock material to produce the biointermediate, if applicable.

(C) A list of the EPA-issued company and facility registration numbers of all biointermediate producers and biointermediate production facilities that will supply biointermediates for renewable fuel production.

(ii) A description of the facility's renewable fuel, ethanol, or biointermediate production processes, including:

* * * * *

(B) For registrations indicating the production of any biointermediate, the biointermediate producer must provide all of the following:

(*1*) For each biointermediate production facility, the company name, EPA company registration number, and EPA facility registration number of the renewable fuel producer and renewable fuel production facility at which the biointermediate produced from the biointermediate production facility will be transferred and used.

(*2*) Copies of documents and corresponding calculations demonstrating production capacity of each biointermediate produced at the biointermediate production facility.

(*3*) For each type of feedstock that the biointermediate producer intends to process the biointermediate producer must provide all the following:

(*i*) A list of all the feedstocks the facility intends to utilize without significant modification to the existing facility.

(*ii*) A description of the type(s) of renewable biomass that will be used as feedstock material to produce the biointermediate.

(*4*) The approved pathway(s) that the biointermediate could be used in to produce renewable fuel.

(iii) The type(s) of co-products produced with each type of renewable fuel, ethanol, or biointermediate.

(iv) * * *

(A) * * *

(*1*) Each type of process heat fuel used at the facility to produce the renewable fuel, ethanol, or biointermediate.

(*2*) The name and address of the company supplying each process heat fuel to the renewable fuel facility, foreign ethanol facility, or biointermediate production facility.

(B) * * *

(*3*) An affidavit from the biogas supplier stating its intent to supply biogas to the renewable fuel producer, foreign ethanol producer, or biointermediate producer, and the quantity and energy content of the biogas that it intends to provide to the renewable fuel producer or foreign ethanol producer.

(v) * * *

(B) For facilities claiming the exemption described in § 80.1403(c) or (d):

(*1*) Applicable air permits issued by EPA, state, local air pollution control agencies, or foreign governmental agencies that govern the construction and/or operation of the renewable fuel facility that were:

(*i*) Issued or revised no later than December 19, 2007, for facilities described in § 80.1403(c); or

(*ii*) Issued or revised no later than December 31, 2009, for facilities described in § 80.1403(d).

(*2*) If the air permits specified in paragraph (b)(1)(v)(B)(*1*) of this section do not specify the maximum rated annual volume output of renewable fuel, copies of documents demonstrating the facility's actual peak capacity.

(C) For facilities not claiming the exemption described in § 80.1403(c) or (d) and that are exempt from air permit requirements or for which the maximum rated annual volume output of renewable fuel is not specified in their air permits, appropriate documentation demonstrating the facility's actual peak capacity or nameplate capacity.

* * * * *

(vii)(A) For a renewable fuel producer, foreign ethanol producer, or biointermediate producer using separated yard waste:

* * * * *

(B) For a renewable fuel producer, foreign ethanol producer, or biointermediate producer using separated food waste:

* * * * *

(viii) For a renewable fuel producer, foreign ethanol producer, or biointermediate producer using separated municipal solid waste:

* * * * *

(B) * * *

(*1*) Extent and nature of recycling that occurred prior to receipt of the waste material by the renewable fuel producer, foreign ethanol producer, or biointermediate producer;

(*2*) Identification of available recycling technology and practices that are appropriate for removing recycling materials from the waste stream by the fuel producer, foreign ethanol producer, or biointermediate producer; and

(*3*) Identification of the technology or practices selected for implementation by the fuel producer, foreign ethanol producer, or biointermediate producer including an explanation for such selection, and reasons why other technologies or practices were not.

* * * * *

(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 § 80.1468), biogas, or renewable electricity, all the following:

* * * * *

(B) A statement regarding whether the renewable fuel producer or importer will blend the renewable fuel into gasoline or diesel fuel or enter into a written contract for the sale and use of a specific quantity of the renewable fuel with a party who blends 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) If the renewable fuel producer or importer enters into a written contract for the sale and use of a specific quantity of the renewable fuel with a party who blends the fuel into gasoline or distillate fuel to produce a transportation fuel, heating oil, or jet fuel, provide all the following:

* * * * *

(xiii)(A) 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% average adjusted cellulosic content, and who uses only a thermochemical process to convert feedstock into renewable fuel, must provide all the following:

(*1*) Data showing the average adjusted cellulosic content of the feedstock(s) to be used to produce fuel or biointermediate, based on the average of at least three representative samples. Cellulosic content data must come from an analytical method certified by a voluntary consensus standards body or using a method that would produce reasonably accurate results as demonstrated through peer reviewed references provided to the third party engineer performing the engineering review at registration. Samples must be of representative feedstock from the primary feedstock supplier that will provide the renewable fuel or biointermediate producer with feedstock subsequent to registration.

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

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

(B) A 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 or a combination of processes to convert feedstock into renewable fuel or biointermediate, must provide all the following:

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

* * * * *

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

* * * * *

(xv) For a producer of cellulosic biofuel made from crop residue, a

foreign ethanol producer making ethanol from crop residue and seeking to have it sold after denaturing as cellulosic biofuel, or a biointermediate producer producing a biointermediate for use in the production of a cellulosic biofuel made from crop residue, provide all the following information:

* * * * *

(xvi) For FFA feedstock, the biointermediate producer must provide a description of how the biointermediate producer will determine FFA concentration.

(2) * * *

(i) * * *

(A) For a domestic renewable fuel production facility, a foreign ethanol production facility, or a biointermediate production facility, a professional engineer who is licensed by an appropriate state agency in the United States, with professional work experience in the chemical engineering field or related to renewable fuel production.

(B) For a foreign renewable fuel or foreign biointermediate production facility, an engineer who is a foreign equivalent to a professional engineer licensed in the United States with professional work experience in the chemical engineering field or related to renewable fuel production.

(ii) * * *

(A) The third-party shall not be operated by the renewable fuel producer, foreign ethanol producer, or biointermediate producer, or any subsidiary or employee of the renewable fuel producer foreign ethanol producer, or biointermediate producer.

(B) The third-party shall be free from any interest in the renewable fuel producer, foreign ethanol producer, or biointermediate producer's business.

(C) The renewable fuel producer, foreign ethanol producer, or biointermediate producer shall be free from any interest in the third-party's business.

* * * * *

(iv) The renewable fuel producer, foreign ethanol producer, or biointermediate producer must retain records of the review and verification, as required in § 80.1454(b)(6) or (i)(4), as applicable.

* * * * *

(d) *Registration updates.* (1)(i)(A) Any renewable fuel producer or any foreign ethanol producer that makes changes to their facility that will allow them to produce renewable fuel or use a biointermediate that is not reflected in the producer's registration information on file with EPA must update their registration information and submit a copy of an updated independent third-party engineering review on file with EPA at least 60 days prior to producing the new type of renewable fuel.

(B) Any biointermediate producer who makes changes to their biointermediate production facility that will allow them to produce a biointermediate for use in the production of a renewable fuel that is not reflected in the biointermediate producer's registration information on file with EPA must update their registration information and submit a copy of an updated independent third-party engineering review on file with EPA at least 60 days prior to producing the new biointermediate for use in the production of the renewable fuel.

(ii) The renewable fuel producer, foreign ethanol producer, or biointermediate producer may also submit an addendum to the independent third-party engineering review on file with EPA provided the addendum meets all the requirements in paragraph (b)(2) of this section and verifies for EPA the most up-to-date information at the producer's existing facility.

(2)(i) Any renewable fuel producer or any foreign ethanol producer that makes any other changes to a facility that will affect the producer's registration information but will not affect the renewable fuel category for which the producer is registered per paragraph (b) of this section must update their registration information 7 days prior to the change.

(ii)(A) Any biointermediate producer that makes any other changes to a biointermediate production facility that will affect the biointermediate producer's registration must update their registration information 7 days prior to the change.

(B)(*1*) Any biointermediate producer that intends to change the designated renewable fuel production facility under paragraph (b)(1)(ii)(B)(*1*) of this section for one of its biointermediate production facilities must update their registration information with EPA at least 30 days prior to transferring the biointermediate to the newly designated renewable fuel production facility.

(*2*) A biointermediate producer may only change the designated renewable fuel production facility under paragraph (b)(1)(ii)(B)(*1*) of this section for each biointermediate production facility one time per calendar year unless EPA, in its sole discretion, allows the biointermediate producer to change the designated renewable fuel production facility more frequently.

(3) All renewable fuel producers, foreign ethanol producers, and biointermediate producers must update registration information and submit an updated independent third-party engineering review according to the schedule in paragraph (d)(3)(i) or (ii) of this section, and include the information specified in paragraph (d)(3)(iii) or (iv) of this section, as applicable:

(i) For all renewable fuel producers and foreign ethanol producers registered in calendar year 2010, the updated registration information and independent third-party engineering review must be submitted to EPA by January 31, 2013, and by January 31 of every third calendar year thereafter; or

(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 first year of registration.

(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 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.

(iv) For biointermediate producers, in addition to conducting the engineering review and written report and verification required by paragraph (b)(2) of this section, the updated independent third-party engineering review must include a detailed review of the biointermediate producer's calculations used to determine the renewable biomass and cellulosic renewable biomass proportions, as required to be reported to EPA under § 80.1451(j), of a representative sample of batches of each type of biointermediate 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.

* * * * *

(g) *Independent third-party auditors.* * * * Registration information must be submitted at least 30 days prior to conducting audits of renewable fuel production or biointermediate production facilities. * * *

* * * * *

(5) *List of audited producers.* Name, address, and company and facility identification numbers of all renewable fuel production or biointermediate production facilities that the independent third-party auditor intends to audit under § 80.1472.

(6) *Audited producer associations.* An affidavit, or electronic consent, from each renewable fuel producer, foreign renewable fuel producer, or biointermediate producer stating its intent to have the independent third-party auditor conduct a quality assurance audit of any of the renewable fuel producer's or foreign renewable fuel producer's facilities.

(7) *Independence affidavits.* An affidavit stating that an independent third-party auditor and its contractors and subcontractors are independent, as described in § 80.1471(b), of any renewable fuel producer, foreign renewable fuel producer, or biointermediate producer.

* * * * *

(9) *Registration updates.* (i) Any independent third-party auditor who makes changes to its quality assurance plan(s) that will allow it to audit new renewable fuel production or biointermediate production facilities that is not reflected in the independent third-party auditor's registration information on file with EPA must update its registration information and submit a copy of an updated QAP on file with EPA at least 60 days prior to auditing new renewable fuel production or biointermediate production facilities.

(ii) Any independent third-party auditor who makes any changes other than those specified in paragraphs (g)(9)(i), (iii), and (iv) of this section that will affect the third-party auditor's registration information must update its registration information 7 days prior to the change.

(iii) Independent third-party auditors must update their QAPs at least 60 days prior to verifying RINs generated or biointermediate produced by a renewable fuel or biointermediate production facility, respectively, for a pathway not covered in the independent third-party auditor's QAPs.

(iv) Independent third-party auditors must update their QAPs at least 60 days prior to verifying RINs generated or biointermediate produced by any renewable fuel or biointermediate production facility not identified in the independent third-party auditor's existing registration.

(10) * * *

(ii) The independent third-party auditor submits an affidavit affirming that he or she has only verified RINs and biointermediates using a QAP approved under § 80.1469, notified all appropriate parties of all potentially invalid RINs as described in § 80.1471(d), and fulfilled all of his or her RIN replacement obligations under § 80.1474.

* * * * *

(11) * * *

(ii) * * * Communications should be sent to the EMTS support line (*fuelsprogramsupport@epa.gov*). * * *

* * * * *

(h) * * *

(1) * * *

(i) Unless the party is a biointermediate producer, the party has reported no activity in EMTS for twenty-four consecutive months.

* * * * *

(2) * * *

(i) * * * The party will have 30 calendar days from the date of the notification to correct the deficiencies identified or explain why there is no need for corrective action.

* * * * *

■ 18. Amend § 80.1451 by:

■ a. Revising paragraphs (b)(1)(ii)(K) and (L), the first sentence of paragraph (b)(1)(ii)(R), (b)(1)(ii)(T), (b)(1)(ii)(U) introductory text, (g)(1)(i), (g)(1)(ii) introductory text, (g)(1)(ii)(A) through (C), (K), and (L), and (g)(2)(vii) and (viii);

■ b. Redesignating paragraph (g)(2)(x) as paragraph (g)(2)(xi) and adding a new paragraph (g)(2)(x); and

■ c. Redesignating paragraphs (j) and (k) as paragraphs (k) and (l) and adding a new paragraph (j).

The revisions and additions read as follows:

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

* * * * *

(b) * * *

(1) * * *

(ii) * * *

(K) The types and quantities of feedstocks and biointermediates used.

(L) The process(es), feedstock(s), and biointermediate(s) used and proportion of renewable volume attributable to each process, feedstock, and biointermediate.

* * * * *

(R) Producers or importers of renewable fuel made from separated municipal solid waste must report the amount of paper, cardboard, plastics, rubber, textiles, metals, and glass separated from municipal solid waste for recycling. * * *

* * * * *

(T) Producers or importers 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 § 80.1468), biogas or renewable electricity, must report, on a quarterly basis, all the following for each volume of fuel:

(*1*) Total volume of renewable fuel produced or imported, total volume of renewable fuel blended into gasoline and distillate fuel by the producer or importer, and the percentage of renewable fuel in each batch of finished fuel.

(*2*) If the producer or importer generates RINs under § 80.1426(f)(17)(i)(B)(*2*), report the name, location, and contract information for each party that purchased the renewable fuel.

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

* * * * *

(g) * * *

(1)(i) RIN and biointermediate verification reports for each renewable fuel or biointermediate production facility audited by the independent third-party auditor shall be submitted according to the schedule specified in paragraph (f)(2) of this section.

(ii) The RIN and biointermediate verification reports shall include all the following information for each batch of renewable fuel produced or imported verified per § 80.1469(c), where ''batch'' means a discrete quantity of renewable fuel produced or imported and assigned a unique batch-RIN per § 80.1426(d):

(A) The RIN generator or biointermediate producer's name.

(B) The RIN generator or biointermediate producer's EPA company registration number.

(C) The renewable fuel or biointermediate producer's EPA facility registration number.

* * * * *

(K) The volume and type of each feedstock and biointermediate used to produce the verified batch.

(L) Whether the feedstocks and biointermediates used to produce each verified batch met the definition of renewable biomass.

* * * * *

(2) * * *

(vii) A list of all renewable fuel and biointermediate facilities including the EPA's company and facility registration numbers audited under an approved quality assurance plan under § 80.1469 along with the date the independent third-party auditor conducted the on-site visit and audit.

(viii) Mass and energy balances calculated for each renewable fuel and biointermediate production facility audited under an approved quality assurance plan under § 80.1469.

* * * * *

(x) A list of all biointermediates that were identified as potentially improperly produced biointermediates under § 80.1477(d).

* * * * *

(j) *Biointermediate producers.* For each biointermediate production facility, any biointermediate producer must submit quarterly reports for biointermediate batch production to EPA containing all of the information in this paragraph (j).

(1) Include all the following information for each batch of biointermediate produced:

(i) The biointermediate producer's name.

(ii) The biointermediate producer's EPA company registration number.

(iii) The biointermediate producer's EPA facility registration number.

(iv) The applicable compliance period.

(v) The production date.

(vi) The batch number.

(vii) For batches of biointermediates intended for use to produce cellulosic biofuels, the adjusted cellulosic content of each batch and certification that the cellulosic content of each batch was derived from cellulose, hemicellulose, or lignin that was derived from renewable biomass.

(viii) The volume of each batch produced.

(ix) The types and quantities of feedstocks used.

(x) The renewable fuel type(s) each batch of biointermediate was designated to be used as a feedstock material for.

(xi) The EPA company registration number and EPA facility registration number for each renewable fuel producer or foreign renewable fuel producer that received each batch.

(xii) The percentage of each batch of biointermediate that met the definition of renewable biomass and certification that this portion of the batch of biointermediate was derived from renewable biomass.

(xiii) The process(es) and feedstock(s) used and proportion of biointermediate volume attributable to each process and feedstock.

(xiv) The type of co-products produced with each batch.

(xv) The quantity of co-products produced in each quarter.

(xvi) Any additional information the Administrator may require.

(2) Quarterly reports under this paragraph (j) must be submitted according to the schedule in paragraph (f)(2) of this section.

* * * * *

■ 19. Amend § 80.1452 by redesignating paragraph (b)(16) as paragraph (b)(18) and adding new paragraphs (b)(16) and (17) to read as follows:

§ 80.1452 What are the requirements related to the EPA Moderated Transaction System (EMTS)?

* * * * *

(b) * * *

(16) The type and quantity of each biointermediate used for the batch, if applicable.

(17) The EPA facility registration number of each biointermediate production facility at which a biointermediate used for the batch was produced, if applicable.

* * * * *

■ 20. Amend § 80.1453 by adding paragraph (f) to read as follows:

§ 80.1453 What are the product transfer document (PTD) requirements for the RFS program?

* * * * *

(f)(1) On each occasion when any party transfers title or custody of a biointermediate, the transferor must provide to the transferee documents that include all of the following information:

(i) The name and address of the transferor and transferee.

(ii) The transferor's and transferee's EPA company registration and applicable facility registration numbers.

(iii) The volume of biointermediate that is being transferred.

(iv) The date of the transfer.

(v) The location of the biointermediate at the time of the transfer.

(vi) The following statement designating the volume of biointermediate as feedstock for the production of a renewable fuel: ''This volume is designated and intended for use as biointermediate in the production of renewable fuel as defined in 40 CFR 80.1401. Parties may not generate RINs on this feedstock material and it must remain segregated from all products until received by a designated renewable fuel production facility.''

(2) In addition to the information specified in paragraph (f)(1) of this section, on each occasion when any party transfers title of a biointermediate or when any party transfers a biointermediate to a renewable fuel production facility, the transferor must provide to the transferee documents that include all of the following information:

(i) The renewable fuel type the biointermediate was designated to be used as a feedstock material for by the biointermediate producer under § 80.1476(i).

(ii) The composition of the biointermediate being transferred, including:

(A) The type and quantity of each feedstock that was used to make the biointermediate.

(B) The percentage of each feedstock that is renewable biomass, rounded to two decimal places.

(C) For a biointermediate that contains both renewable and non-renewable feedstocks:

(*1*) The percentage of each feedstock that is not renewable biomass, rounded to two decimal places.

(*2*) The feedstock energy from the renewable biomass used to make the biointermediate, in Btu.

(*3*) The feedstock energy from the non-renewable biomass used to make the biointermediate, in Btu.

(*4*) The total percentage of the biointermediate that may generate RINs, rounded to two decimal places.

(*5*) The total percentage of the biointermediate that may not generate RINs, rounded to two decimal places.

(D) For a biointermediate that contains cellulosic material:

(*1*) The percentage of each feedstock that is cellulosic, rounded to two decimal places.

(*2*) The percentage of each feedstock that is non-cellulosic, rounded to two decimal places, if applicable.

(*3*) If the biointermediate is intended for use in the production of a cellulosic biofuel, the total percentage of the biointermediate that may generate cellulosic RINs, rounded to two decimal places.

(*4*) For separated municipal solid waste, the cellulosic portion of the biointermediate is equivalent to the biogenic portion.

(*5*) For separated food waste, the non-cellulosic percentage is assumed to be zero percent unless it is demonstrated to be partially cellulosic.

(*6*) For separated yard waste, 100% of separated yard waste is deemed to be cellulosic.

(*7*) The following statement: ''I certify that the cellulosic content of this feedstock was derived from cellulose, hemicellulose, or lignin that was derived from renewable biomass.''

(iii) Copies of records specified in § 80.1454(i)(3), (5), and (6) for the volume being transferred, as applicable.

■ 21. Amend § 80.1454 by:

■ a. Redesignating paragraphs (b)(3)(vii) through (xii) as paragraphs (b)(3)(viii) through (xiii), respectively, and adding a new paragraph (b)(3)(vii);

■ b. Revising paragraph (b)(6), the first sentence of paragraph (d)(4), and paragraphs (i) and (j) introductory text;

■ c. Adding a heading to paragraph (k);

■ d. Revising paragraphs (l) introductory text and (l)(1);

■ e. Redesignating paragraph (l)(3) as paragraph (l)(4) and adding a new paragraph (l)(3);

■ f. Revising the first sentence of paragraph (m) introductory text;

■ g. Redesignating paragraph (m)(10) as paragraph (m)(11) and adding a new paragraph (m)(10);

■ h. Removing paragraphs (n) through (q);

■ i. Redesignating paragraphs (s) through (v) as paragraphs (n) through (q);

■ j. Revising newly redesignated paragraph (n) introductory text;

■ k. Revising paragraph (r);

■ l. Adding new paragraphs (s) through (v); and

■ m. Removing paragraph (w).

The revisions and additions read as follows:

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

* * * * *

(b) * * *

(3) * * *

(vii) Type and quantity of biointermediates used.

* * * * *

(6) Copies of registration documents required under § 80.1450, including information on fuels and products, feedstocks, biointermediates, facility production processes, process changes, and capacity, energy sources, and a copy of the independent third party engineering review report submitted to EPA per § 80.1450(b)(2).

* * * * *

(d) * * *

(4) Domestic producers of renewable fuel or biointermediates made from any other type of renewable biomass must have documents from their feedstock supplier certifying that the feedstock qualifies as renewable biomass, describing the feedstock. * * *

* * * * *

(i) *Requirements for biointermediate producers.* In addition to any other applicable records a biointermediate producer must maintain under this section, any biointermediate producer producing a biointermediate must keep all of the following records:

(1) Product transfer documents consistent with § 80.1453(f) and associated with the biointermediate producer's activities, if any, as transferor or transferee of biointermediates.

(2) Copies of all reports submitted to EPA under § 80.1451(i).

(3) Records related to the production of biointermediates for each biointermediate production facility, including all of the following:

(i) Batch volume.

(ii) Batch number.

(iii) Type and quantity of co-products produced.

(iv) Type and quantity of feedstocks used.

(v) Type and quantity of fuel used for process heat.

(vi) Calculations per § 80.1426(f), as applicable.

(vii) Date of production.

(viii) Results of any laboratory analysis of batch chemical composition or physical properties.

(4) Copies of registration documents required under § 80.1450, including information on products, feedstocks, facility production processes, process changes, and capacity, energy sources, and a copy of the independent third party engineering review submitted to EPA per § 80.1450(b)(2)(i).

(5) Records demonstrating that feedstocks are renewable biomass, as required under paragraphs (d), (g), (h), and (j) of this section, as applicable.

(6) For any biointermediate made from Arundo donax or Pennisetum purpureum per § 80.1426(f)(14), all applicable records described in paragraph (b)(7) of this section.

(7) Records, including contracts, related to the implementation of a QAP under §§ 80.1469 and 80.1477.

(j) *Additional requirements for producers that use separated yard waste, separate food waste, separated municipal solid waste, or biogenic waste oils/fats/greases.* A renewable fuel or biointermediate producer that produces fuel or biointermediate from separated yard waste, separated food waste, separated municipal solid waste, or biogenic waste oils/fats/greases must keep all the following additional records:

* * * * *

(k) *Additional requirements for producers of renewable fuel using biogas.* * * *

* * * * *

(l) *Additional requirements for producers or importers of any renewable fuel other than ethanol, biodiesel, renewable gasoline, renewable diesel, biogas, 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 § 80.1468), biogas or renewable electricity shall keep all of the following additional records:

(1) Documents demonstrating the total volume of renewable fuel produced, total volume of renewable fuel blended into gasoline and distillate fuel, and the percentage of renewable fuel in each batch of finished fuel.

* * * * *

(3) For each batch of renewable fuel that generated RINs under § 80.1426(f)(17)(i)(B)(*2*), one or more affidavits from the party that blended or used the renewable fuel that includes all the following information:

(i) Quantity of renewable fuel received from the producer or importer.

(ii) Date the renewable fuel was received from producer.

(iii) A description of the fuel that the renewable fuel was blended into and the blend ratios for each batch, if applicable.

(iv) A description of the finished fuel, and a statement that the fuel meets all applicable standards and was sold for use as a transportation fuel, heating oil or jet fuel.

(v) Quantity of assigned RINs received with the renewable fuel, if applicable.

(vi) Quantity of assigned RINs that the end user separated from the renewable fuel, if applicable.

* * * * *

(m) *Requirements for independent third-party auditors.* * * *

(10) Copies of all reports required under § 80.1464.

* * * * *

(n) *Additional requirements for producers of renewable fuel using crop residue.* Producers of renewable fuel using crop residue must keep records of all of the following:

* * * * *

(r) *Transaction requirement.* Beginning July 1, 2010, all parties must keep transaction information sent to EMTS in addition to other records required under this section.

(1) For buy or sell transactions of separated RINs, parties must retain records substantiating the price reported to EPA under § 80.1452.

(2) For buy or sell transactions of separated RINs on or after January 1, 2020, parties must retain records demonstrating the transaction mechanism (*e.g.,* spot market or fulfilling a term contract).

(s) *Record retention requirement.* (1) The records required under paragraphs (a) through (d), (f) through (l), (n), and (r) of this section and under § 80.1453 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.

(2) The records required under paragraph (e) of this section must be kept through calendar year 2022.

(t) *Record availability requirement.* On request by the EPA, the records required under this section and under § 80.1453 must be made available to the Administrator or the Administrator's authorized representative. For records that are electronically generated or maintained, the equipment or software necessary to read the records shall be made available; or, if requested by the EPA, electronic records shall be converted to paper documents.

(u) *Record transfer requirement.* The records required in paragraphs (b)(3) and (c)(1) of this section must be transferred with any renewable fuel sent to the importer of that renewable fuel by any non-RIN-generating foreign producer.

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

■ 22. Amend § 80.1460 by revising paragraphs (b)(5) and (6) and adding paragraphs (b)(8) and (k) to read as follows:

§ 80.1460 What acts are prohibited under the RFS program?

* * * * *

(b) * * *

(5) Introduce into commerce any renewable fuel produced from a feedstock, biointermediate, or through a process that is not described in the person's registration information.

(6) Generate a RIN for fuel for which RINs have previously been generated unless the RINs were generated under § 80.1426(c)(6).

* * * * *

(8) Generate a RIN for fuel that was produced from a biointermediate for which the fuel and biointermediate were not audited under an EPA-approved quality assurance plan.

* * * * *

(k) *Biointermediate-related violations.* No person may do any of the following:

(1) Introduce into commerce for use in the production of a renewable fuel any biointermediate produced from a feedstock or through a process that is not described in the person's registration information.

(2) Produce a renewable fuel at more than one facility unless the person uses a biointermediate or the renewable biomass is not substantially altered. Form changes of renewable biomass such as bleaching through adsorption, rendering fats, chopping, crushing, grinding, pelletizing, filtering, compacting/compression, centrifuging, degumming, dewatering/drying, melting, triglycerides resulting from deodorizing, or the addition of water to produce a slurry do not constitute substantial alteration.

(3) Transfer a biointermediate from a biointermediate production facility to a facility other than the renewable fuel production facility specified in the biointermediate producer's registration under § 80.1450(b)(1)(ii)(B)(*1*).

(4) Isolate or concentrate non-characteristic components of the feedstock to yield a biointermediate not identified in a registration accepted by EPA.

(5) No person may transfer a biointermediate without complying with the PTD requirements in § 80.1453(f)

■ 23. Amend § 80.1461 by revising paragraphs (a)(1) and (2) and adding paragraph (e) to read as follows:

§ 80.1461 Who is liable for violations under the RFS program?

(a) * * *

(1) Any person who violates a prohibition under § 80.1460(a) through (d) or (g) through (k) is liable for the violation of that prohibition.

(2) Any person who causes another person to violate a prohibition under § 80.1460(a) through (d) or (g) through (k) is liable for a violation of § 80.1460(e).

* * * * *

(e) *Biointermediate liability.* When a biointermediate contained in any storage tank at any facility owned, leased, operated, controlled, or supervised by any biointermediate producer, biointermediate importer, renewable fuel producer, or foreign ethanol producer is found in violation of a prohibition described in § 80.1460(k)(1) and (3), the following persons shall be deemed in violation:

(1) Each biointermediate producer, biointermediate importer, renewable fuel producer, renewable fuel importer, or foreign ethanol producer who owns, leases, operates, controls, or supervises the facility where the violation is found.

(2) Each biointermediate producer, biointermediate importer, renewable fuel producer, renewable fuel importer, or foreign ethanol producer who manufactured, imported, sold, offered for sale, dispensed, offered for supply, stored, transported, or caused the transportation of any biointermediate that is in the storage tank containing the biointermediate found to be in violation.

(3) Each carrier who dispensed, supplied, stored, or transported any biointermediate that was in the storage tank containing the biointermediate found to be in violation, provided that EPA demonstrates, by reasonably specific showings using direct or circumstantial evidence, that the carrier caused the violation.

■ 24. Amend § 80.1463 by revising paragraph (d) to read as follows:

§ 80.1463 What penalties apply under the RFS program?

* * * * *

(d) Any person liable under § 80.1461(a) for a violation of § 80.1460(b)(1) through (4) or (6) through (8) is subject to a separate day of violation for each day that an invalid RIN remains available for an obligated party or exporter of renewable fuel to demonstrate compliance with the RFS program.

■ 25. Amend § 80.1464 by:

■ a. Removing ''§ 80.127'' everywhere it appears and adding ''40 CFR 1090.1805'' in its place;

■ b. Revising paragraph (a)(3)(ii);

■ c. Adding paragraph (a)(7);

■ d . Revising paragraph (b)(1)(v)(A);

■ e. Adding paragraph (b)(1)(v)(C);

■ f. Revising paragraphs (b)(3)(ii) and (b)(4)(i);

■ g. Adding paragraphs (b)(4)(iii) and (b)(8);

■ h. Revising paragraphs (c) introductory text and (c)(2)(ii);

■ i. Adding paragraphs (c)(6) and (7) and (h); and

■ j. Revising the heading of paragraph (i)(1), paragraphs (i)(1)(i) and (iii), the heading of paragraph (i)(2), and paragraphs (i)(2)(i) and (ii).

The revisions and additions 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 for parties that reported RIN activity for RINs assigned to a

volume of renewable fuel, the volume and type of renewable fuel owned at the end of each quarter, as represented in these documents; and state whether this information agrees with the party's reports to EPA.

* * * * *

(7) *Compliance reports.* Compare the list of compliance reports submitted to EPA during the compliance period to the reporting requirements for the entity in § 80.1451. Report as a finding any reporting requirements that were not completed.

(b) * * *

(1) * * *

(v)(A) Obtain documentation, as required under § 80.1451(b), (d), and (e), associated with feedstock and biointermediate purchases for a representative sample of feedstocks and biointermediates separately, selected in accordance with the guidelines in 40 CFR 1090.1805, of renewable fuel batches produced or imported during the year being reviewed.

* * * * *

(C) Verify that biointermediates were properly identified in the reports, as applicable.

* * * * *

(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 for parties that reported RIN activity for RINs assigned to a volume of renewable fuel, the volume of renewable fuel owned at the end of each quarter, as represented in these documents; and state whether this information agrees with the party's reports to EPA.

(4) * * *

(i) Obtain documentation of independent third-party engineering reviews required under § 80.1450(b)(2). Such documentation must include the date of the last engineering review along with date of the actual site visit by the professional engineer.

* * * * *

(iii) Verify that independent third-party engineering reviews conducted under § 80.1450(d)(3) occurred within the three-year cycle. Report as a finding if the engineering review was not updated as part of the three-year cycle under § 80.1450(d)(3).

* * * * *

(8) *Compliance reports.* Compare the list of compliance reports submitted to EPA during the compliance period to the reporting requirements for the entity in § 80.1451. Report as a finding any reporting requirements that were not completed.

(c) *Other parties owning RINs.* Except as specified in paragraph (c)(6) of this section, the following attest procedures must be completed for any party other than an obligated party or renewable fuel producer or importer that owns any RINs during a calendar year:

* * * * *

(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 for parties that reported RIN activity for RINs assigned to a volume of renewable fuel, the volume of renewable fuel owned at the end of each quarter, as represented in these documents; and state whether this information agrees with the party's reports to EPA.

* * * * *

(6) *Low-volume RIN owner exemption.* Any party who meets all the following criteria in a given compliance period is not required to submit an attest engagement for that compliance period:

(i) The party must be solely registered as a party owning RINs (*i.e.,* a ''RIN Owner Only'') and must not also be registered in any other role under § 80.1450 (*e.g.,* the party must not also be an obligated party, exporter of renewable fuel, renewable fuel producer, RIN generating importer, etc.).

(ii) The party must have transacted (*e.g.,* generated, bought, sold, separated, or retired) 10,000 or fewer RINs in the given compliance period.

(iii) The party has not exceeded the RIN holding threshold(s) specified in § 80.1435.

(7) *Compliance reports.* Compare the list of compliance reports submitted to EPA during the compliance period to the reporting requirements for the entity in § 80.1451. Report as a finding any reporting requirements that were not completed.

* * * * *

(h) *Biointermediate producers.* The following attest reports must be completed for any biointermediate producer that produces a biointermediate in a compliance year:

(1) *Biointermediate production reports.* (i) Obtain and read copies of the quarterly biointermediate production reports required under § 80.1451(i); compare the reported information to the requirements under § 80.1451(i); and report as a finding any missing or incomplete information in the reports.

(ii) Obtain any database, spreadsheet, or other documentation used to generate the information in the biointermediate production reports; compare the corresponding entries in the database or spreadsheet and report as a finding any discrepancies.

(iii) For a representative sample of biointermediate batches, selected in accordance with the guidelines in 40 CFR 1090.1805, obtain records required under § 80.1454(i); compare these records to the corresponding batch entries in the reports procured in paragraph (h)(1)(i) of this section and report as a finding any discrepancies.

(iv) Obtain the list of designated renewable fuel production facilities under § 80.1450(b)(1)(ii)(B)(*1*); compare the list of registered designated renewable fuel production facilities to those identified in the biointermediate production report; and report as a finding any discrepancies.

(v) Provide the list of renewable fuel producers receiving any transfer of biointermediate batches and calculate the total volume from the batches received.

(2) *Independent third-party engineering review.* (i) Obtain documentation of independent third-party engineering reviews required under § 80.1450(b)(2).

(ii) Review and verify the written verification and records generated as part of the independent third-party engineering review.

(iii) Provide the date of the submission of the last engineering review along with the date of the actual site visit by the professional engineer. Report as a finding if the engineering review was not updated as part of the three-year cycle under § 80.1450(d)(3).

(iv) Compare and provide the total volume of produced biointermediate during the compliance year as compared to the production capacity stated in the engineering review and report as a finding if the volume of produced biointermediate is greater than the stated production capacity.

(3) *Product transfer documents.* (i) Obtain contracts, invoices, or other documentation for each batch in the

representative sample under paragraph (h)(1)(iii) of this section and the corresponding copies of product transfer documents required under § 80.1453; compare the product transfer documents with the contracts and invoices and report as a finding any discrepancies.

(ii) Verify that the product transfer documents obtained in paragraph (h)(3)(i) of this section contain the applicable information required under § 80.1453 and report as a finding any product transfer document that does not contain the required information.

(iii) Verify the accuracy of the information contained in the product transfer documents reviewed pursuant to paragraph (h)(3)(ii) of this section with the records obtained and reviewed under paragraph (h)(1)(iii) of this section and report as a finding any exceptions.

(i) * * *

(1) *Comparing RIN and biointermediate verification reports with approved QAPs.* (i) Obtain and read copies of reports required under § 80.1451(g)(1). Compare the list of compliance reports submitted to EPA during the compliance period to the reporting requirements for the entity in § 80.1451. Report as a finding any reporting requirements that were not completed.

* * * * *

(iii) Confirm that the independent third-party auditor only verified RINs and biointermediates covered by approved QAPs under § 80.1469. Identify as a finding any discrepancies.

(2) *Checking third-party auditor's RIN and biointermediate verification.* (i) Obtain and read copies of reports required under § 80.1451(g)(2). Compare the list of compliance reports submitted to EPA during the compliance period to the reporting requirements for the entity in § 80.1451. Report as a finding any reporting requirements that were not completed.

(ii) Obtain all notifications of potentially invalid RINs and potentially improperly produced biointermediate submitted to the EPA under §§ 80.1474(b)(3) and 80.1477(d)(2) respectively.

* * * * *

■ 26. Revise § 80.1468 to read as follows:

§ 80.1468 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. 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, email *fr.inspection@nara.gov,* or go to *www.archives.gov/federal-register/cfr/ibr-locations.html.* The material may be obtained from the source(s) in the following paragraph(s) of this section.

(b) ASTM International, 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 §§ 80.1401; 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 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).

(4) 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).

(5) ASTM D6751–20a, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, approved August 1, 2020 (''ASTM D6751''); IBR approved for § 80.1401.

(6) 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 §§ 80.1426(f); 80.1430(e).

(7) 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).

(8) 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).

■ 27. Amend § 80.1469 by revising the introductory text and paragraphs (c)(1)(vi) and (vii), (c)(2)(i), (c)(3)(i), (c)(5), and (f)(1) and (2) to read as follows:

§ 80.1469 Requirements for Quality Assurance Plans.

This section specifies the requirements for Quality Assurance Plans (QAPs) for renewable fuels and biointermediates.

* * * * *

(c) * * *

(1) * * *

(vi) Feedstock(s) and biointermediate(s) are consistent with production process and D code being used as permitted under the approved pathway and is consistent with information recorded in EMTS.

(vii) Feedstock(s) and biointermediate(s) are not renewable fuel for which RINs were previously generated unless the RINs were generated under § 80.1426(c)(6). For renewable fuels that have RINs generated under § 80.1426(c)(6), verify that renewable fuels used as a feedstock meet all applicable requirements of this paragraph (c)(1).

* * * * *

(2) * * *

(i) Production process is consistent with the renewable fuel producer or biointermediate producer's registration under § 80.1450(b).

* * * * *

(3) * * *

(i) If applicable, renewable fuel was designated for qualifying uses as transportation fuel, heating oil, or jet fuel in the covered location pursuant to § 80.1453.

* * * * *

(5) *Representative sampling.* Independent third-party auditors may use a representative sample of batches of renewable fuel or biointermediate in accordance with the procedures described in 40 CFR 1090.1805 for all components of this paragraph (c) except for paragraphs (c)(1)(ii) and (iii), (c)(2)(ii), (c)(3)(vi), and (c)(4)(ii) and (iii) of this section. If a facility produces both a renewable fuel and a biointermediate, the independent third-party auditor must select separate representative samples for the renewable fuel and biointermediate.

* * * * *

(f) * * *

(1) A new QAP must be submitted to EPA according to paragraph (e) of this section and the independent third-party auditor must update their registration according to § 80.1450(g)(9) whenever any of the following changes occur at a renewable fuel or biointermediate production facility audited by an

independent third-party auditor and the auditor does not possess an appropriate pathway-specific QAP that encompasses the change:

(i) Change in feedstock or biointermediates.

(ii) Change in type of fuel or biointermediate produced.

(iii) Change in facility operations or equipment that may impact the capability of the QAP to verify that RINs are validly generated or biointermediates are properly produced.

(2) A QAP ceases to be valid as the basis for verifying RINs or a biointermediate under a new pathway until a new pathway-specific QAP, submitted to the EPA under this paragraph (f), is approved pursuant to paragraph (e) of this section.

■ 28. Amend § 80.1471 by:

■ a. Revising paragraphs (b)(1), (4), (5), and (6) and (c);

■ b. Adding paragraph (e)(5); and

■ c. Revising paragraphs (f)(1) introductory text, (f)(1)(ii), and (g).

The revisions and addition read as follows:

§ 80.1471 Requirements for QAP auditors.

* * * * *

(b) * * *

(1) The independent third-party auditor and its contractors and subcontractors must not be owned or operated by the renewable fuel producer, foreign renewable fuel producer, or biointermediate producer or any subsidiary or employee of the renewable fuel producer, foreign ethanol producer, or biointermediate producer.

* * * * *

(4) The independent third-party auditor and its contractors and subcontractors must be free from any interest or the appearance of any interest in the renewable fuel producer, foreign renewable fuel producer, or biointermediate producer's business.

(5) The renewable fuel producer, foreign renewable fuel producer, or biointermediate producer 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 renewable fuel producer, foreign renewable fuel producer, or biointermediate producer in the same calendar year as a QAP audit conducted pursuant to § 80.1472.

* * * * *

(c) Independent third-party auditors must maintain professional liability insurance. Independent third-party auditors must use insurance providers that possess a financial strength rating in the top four categories from Standard & Poor's or Moody's (*i.e.,* AAA, AA, A, or BBB for Standard & Poor's and Aaa, Aa, A, or Baa for Moody's), or a comparable rating acceptable to EPA. Independent third-party auditors must disclose the level of professional liability insurance they possess when entering into contracts to provide RIN verification services.

* * * * *

(e) * * *

(5) The independent third-party auditor must not identify RINs generated for renewable fuel produced using a biointermediate as having been verified under a QAP unless the biointermediate used to produce the renewable fuel was verified under an approved QAP pursuant to § 80.1477.

(f)(1) Except as specified in paragraph (f)(2) of this section, auditors may only verify RINs that have been generated after the audit required under § 80.1472 has been completed. Auditors may only verify biointermediates that were produced after the audit required under § 80.1472 has been completed. Auditors must only verify RINs generated from renewable fuels produced from biointermediates after the audit required under § 80.1472 has been completed for both the biointermediate production facility and the renewable fuel production facility.

* * * * *

(ii) Verification of RINs or biointermediates may continue for no more than 200 days following an on-site visit or 380 days after an on-site visit if a previously the EPA-approved remote monitoring system is in place at the renewable fuel production facility.

* * * * *

(g) The independent third-party auditor must permit any representative of the EPA to monitor at any time the implementation of QAPs and renewable fuel and biointermediate production facility audits.

* * * * *

■ 29. Amend § 80.1472 by revising paragraphs (a)(4), (b)(3)(i) introductory text, (b)(3)(ii)(B), and (b)(3)(iii) to read as follows:

§ 80.1472 Requirements for quality assurance audits.

(a) * * *

(4) Each audit shall include a review of documents generated by the renewable fuel producer or biointermediate producer.

(b) * * *

(3) * * *

(i) As applicable, the independent third-party auditor shall conduct an on-site visit at the renewable fuel production facility, foreign ethanol production facility, or biointermediate production facility:

* * * * *

(ii) * * *

(B) 380 days after the previous on-site visit if a previously approved (by EPA) remote monitoring system is in place at the renewable fuel production facility, foreign ethanol production facility, or biointermediate production facility, as applicable. The 380-day period shall start the day after the previous on-site visit ends.

(iii) An on-site visit shall include verification of all QAP elements that require inspection or evaluation of the physical attributes of the renewable fuel production facility, foreign ethanol production facility, or biointermediate production facility, as applicable.

* * * * *

§ 80.1473 [Amended]

■ 30. Amend § 80.1473(f) by removing the text ''*support@epamts-support.com*'' and adding, in its place, the text ''*fuelsprogramsupport@epa.gov*''.

§ 80.1474 [Amended]

■ 31. Amend § 80.1474(b) by removing the text ''*support@epamts-support.com*'' wherever it appears and adding, in its place, the text ''*fuelsprogramsupport@epa.gov*''.

■ 32. Amend § 80.1475 by:

■ a. In paragraph (a)(2), removing the text ''§§ 80.125 through 80.127 and § 80.130'' and adding, in its place, the text ''40 CFR 1090.1800 through 1090.1850'';

■ b. Revising the first sentence of paragraph (d)(1) and paragraph (d)(3); and

■ c. In paragraph (d)(4) introductory text, removing the text ''§ 80.127'' and adding, in its place, the text ''40 CFR 1090.1805''.

The revisions read as follows:

§ 80.1475 What are the additional attest engagement requirements for parties that redesignate certified NTDF as MVNRLM diesel fuel?

* * * * *

(d) * * *

(1) For each of the volumes listed in paragraphs (c)(1)(iii) through (vi) of this section, obtain a separate listing of all tenders from the refiner or importer for the reporting period. * * *

* * * * *

(3) Agree the volume totals on the listing to the tender volume total in the

inventory reconciliation analysis obtained in paragraph (c) of this section.

* * * * *

■ 33. Add § 80.1476 to read as follows:

§ 80.1476 Requirements for biointermediate producers.

Biointermediate producers must comply with the following requirements:

(a) *Registration.* No later than 60 days prior to the transfer of any biointermediate to be used in the production of a renewable fuel for which RINs may be generated, biointermediate producers must register with EPA pursuant to the requirements of § 80.1450(b).

(b) *Reporting.* Biointermediate producers must comply with the reporting requirements in § 80.1451(j).

(c) *Recordkeeping.* Biointermediate producers must comply with the recordkeeping requirements in § 80.1454(i).

(d) *PTDs.* Biointermediate producers must comply with the PTD requirements in § 80.1453(f).

(e) *Quality Assurance Plans.* Prior to the transfer of any biointermediate to be used in the production of a renewable fuel for which RINs may be generated, biointermediate producers must have an approved quality assurance plan pursuant to § 80.1477(b) and the independent third-party auditor must have conducted a site visit of the biointermediate production facility under § 80.1472.

(f) *Attest engagements.* Biointermediate producers must comply with the annual attest engagement requirements in § 80.1464(h).

(g) *Limitations on biointermediate transfers and production.* (1) A biointermediate producer must transfer all biointermediates produced from a single biointermediate facility to a single renewable fuel production facility as designated under § 80.1450(b)(1)(ii)(B)(*1*).

(2)(i) Except as specified in paragraph (g)(2)(ii) of this section, a batch of biointermediate must be segregated from other batches of biointermediate (even if it is the same type of biointermediate), other feedstocks, foreign ethanol, and renewable fuels from the point that the batch of biointermediate is produced to the point where the batch of biointermediate is received at the renewable fuel production facility designated under § 80.1450(b)(1)(ii)(B)(*1*).

(ii)(A) Batches of biointermediate may be commingled between the biointermediate production facility and the designated renewable fuel production facility as long as each batch is produced at the same biointermediate production facility, is the same type of biointermediate, and no other feedstocks, biointermediates, foreign ethanol, or renewable fuels are comingled.

(B) A renewable fuel producer may commingle batches of biointermediate at an off-site storage tank if all the following conditions are met:

(*1*) Only batches of the same type of biointermediate are commingled and no other feedstocks, biointermediates, foreign ethanol, or renewable fuels are comingled in the off-site storage tank.

(*2*) The renewable fuel producer owns or is the sole position holder in the off-site storage tank.

(3) Renewable fuel producers that receive biointermediate at a renewable fuel production facility may not be a biointermediate producer.

(4) A biointermediate must not be used to make another biointermediate.

(5) A foreign biointermediate producer must not transfer biointermediate to a non-RIN-generating foreign producer.

(h) *Batch numbers and volumes.* (1) Each batch of biointermediate produced at a biointermediate production facility must be assigned a number (the ''batch number''), consisting of the EPA-assigned company registration number, the EPA-assigned facility registration number, the last two digits of the year in which the batch was produced, and a unique number for the batch, beginning with the number one for the first batch produced each calendar year and each subsequent batch during the calendar year being assigned the next sequential number (*e.g.,* 4321–54321–95–000001, 4321–54321–95–000002, etc.).

(2) For biointermediates measured on a volume basis, the volume of each batch of biointermediate must be adjusted to a standard temperature of 60 °F as specified in § 80.1426(f)(8).

(i) *Designation.* Each batch of biointermediate produced at a biointermediate production facility must be designated for use in the production of a renewable fuel in accordance with the biointermediate producer's registration under § 80.1450. The designation for the batch of biointermediate must be clearly indicated on PTDs for the biointermediate as described in § 80.1453(f)(1)(vi). The same batch or a portion of a batch may not be designated as both a biointermediate and a renewable fuel.

■ 34. Add § 80.1477 to read as follows:

§ 80.1477 Requirements for QAPs for biointermediate producers.

(a) Independent third-party auditors that verify biointermediate production must meet the requirements of § 80.1471(a) through (c) and (f) through (h), as applicable.

(b) QAPs approved by EPA to verify biointermediate production must meet the requirements in § 80.1469(c) through (f), as applicable.

(c) Quality assurance audits, when performed, must be conducted in accordance with the requirements in § 80.1472(a) and (b)(3).

(d)(1) If an independent third-party auditor identifies a potentially improperly produced biointermediate, the independent third-party auditor must notify EPA, the biointermediate producer, and the renewable fuel producer that may have been transferred the biointermediate within five business days of the identification, including an initial explanation of why the biointermediate may have been improperly produced.

(2) If RINs were generated from the potentially improperly produced biointermediate, the RIN generator must follow the applicable identification and treatment of PIRs as specified in § 80.1474.

(e) For the generation of Q–RINs for renewable fuels that were produced from a biointermediate, the biointermediate must be verified under an approved QAP as described in paragraph (b) of this section and the RIN generating facility must be verified under an approved QAP as described in § 80.1469.

■ 35. Add § 80.1478 to read as follows:

§ 80.1478 Requirements for foreign biointermediate producers and importers.

(a) *Foreign biointermediate producer.* For purposes of this subpart, a foreign biointermediate producer is a person located outside the United States, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (collectively referred to in this section as ''the United States'') that has been approved by EPA to produce biointermediate for use in the production of renewable fuel by a RIN-generating renewable fuel producer.

(b) *Foreign biointermediate producer requirements.* Any foreign biointermediate producer must meet all requirements that apply to biointermediate producers under this subpart as a condition of being approved as a foreign biointermediate producer under this subpart.

(c) *Foreign biointermediate producer commitments.* Any foreign

biointermediate producer must commit to the following provisions as a condition of being registered as a foreign biointermediate producer under this subpart:

(1) Any EPA inspector or auditor must be given full, complete, and immediate access to conduct inspections and audits of the foreign biointermediate producer facility.

(i) Inspections and audits may be either announced in advance by EPA, or unannounced.

(ii) Access will be provided to any location where:

(A) Biointermediate is produced.

(B) Documents related to foreign biointermediate producer operations are kept.

(C) Biointermediate is stored or transported between the foreign biointermediate producer and the renewable fuel producer, including storage tanks, vessels, and pipelines.

(iii) EPA inspectors and auditors may be EPA employees or contractors to EPA.

(iv) Any documents requested that are related to matters covered by inspections and audits must be provided to an EPA inspector or auditor on request.

(v) Inspections and audits may include review and copying of any documents related to the following:

(A) The volume of biointermediate produced or delivered to renewable fuel production facilities.

(B) Transfers of title or custody to the biointermediate.

(C) Work performed and reports prepared by independent third parties and by independent auditors under the requirements of this section, including work papers.

(vi) Inspections and audits by EPA may include interviewing employees.

(vii) Any employee of the foreign biointermediate producer must be made available for interview by the EPA inspector or auditor, on request, within a reasonable time period.

(viii) English language translations of any documents must be provided to an EPA inspector or auditor, on request, within 10 business days.

(ix) English language interpreters must be provided to accompany EPA inspectors and auditors, on request.

(2) An agent for service of process located in the District of Columbia must be named, and service on this agent constitutes service on the foreign biointermediate producer or any employee of the foreign biointermediate producer for any action by EPA or otherwise by the United States related to the requirements of this subpart.

(3) The forum for any civil or criminal enforcement action related to the provisions of this section for violations of the Clean Air Act or regulations in this title promulgated thereunder must be governed by the Clean Air Act, including the EPA administrative forum where allowed under the Clean Air Act.

(4) United States substantive and procedural laws apply to any civil or criminal enforcement action against the foreign biointermediate producer or any employee of the foreign biointermediate producer related to the provisions of this section.

(5) Applying to be an approved foreign biointermediate producer under this section, or producing or exporting biointermediate under such approval, and all other actions to comply with the requirements of this subpart relating to such approval constitute actions or activities covered by and within the meaning of the provisions of 28 U.S.C. 1605(a)(2), but solely with respect to actions instituted against the foreign biointermediate producer, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign biointermediate producer under this subpart, including conduct that violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413).

(6) The foreign biointermediate producer, or its agents or employees, will not seek to detain or to impose civil or criminal remedies against EPA inspectors or auditors for actions performed within the scope of EPA employment or contract related to the provisions of this section.

(7) The commitment required by this paragraph (c) must be signed by the owner or president of the foreign biointermediate producer company.

(8) In any case where the biointermediate produced at a foreign biointermediate production facility is stored or transported by another company between the production facility and the vessel that transports the biointermediate to the United States, the foreign biointermediate producer must obtain from each such other company a commitment that meets the requirements specified in paragraphs (c)(1) through (7) of this section, and these commitments must be included in the foreign biointermediate producer's application to be an approved foreign biointermediate producer under this subpart.

(d) *Sovereign immunity.* By submitting an application to be an approved foreign biointermediate producer under this subpart, or by producing and exporting biointermediate fuel to the United States under such approval, the foreign biointermediate producer, and its agents and employees, without exception, become subject to the full operation of the administrative and judicial enforcement powers and provisions of the United States without limitation based on sovereign immunity, with respect to actions instituted against the foreign biointermediate producer, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign biointermediate producer under this subpart, including conduct that violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413).

(e) *English language reports.* Any document submitted to EPA by a foreign biointermediate producer must be in English or must include an English language translation.

(f) *Withdrawal or suspension of foreign biointermediate producer approval.* EPA may withdraw or suspend a foreign biointermediate producer's approval where any of the following occur:

(1) A foreign biointermediate producer fails to meet any requirement of this section.

(2) A foreign government fails to allow EPA inspections or audits as provided in paragraph (c)(1) of this section.

(3) A foreign biointermediate producer asserts a claim of, or a right to claim, sovereign immunity in an action to enforce the requirements in this subpart.

(g) *Additional requirements for applications, reports, and certificates.* Any application for approval as a foreign biointermediate producer, any report, certification, or other submission required under this section shall be:

(1) Submitted in accordance with procedures specified by the Administrator, including use of any forms that may be specified by the Administrator.

(2) Signed by the president or owner of the foreign biointermediate producer company, or by that person's immediate designee, and must contain the following declarations:

(i) *Certification.*

''I hereby certify:

That I have actual authority to sign on behalf of and to bind [NAME OF FOREIGN BIOINTERMEDIATE PRODUCER] with regard to all statements contained herein;

That I am aware that the information contained herein is being Certified, or

submitted to the United States Environmental Protection Agency, under the requirements of 40 CFR part 80, subpart M, and that the information is material for determining compliance under these regulations; and

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, subpart M, including 40 CFR 80.1478 apply to [NAME OF FOREIGN BIOINTERMEDIATE PRODUCER]. Pursuant to Clean Air Act section 113(c) and 18 U.S.C. 1001, the penalty for furnishing false, incomplete or misleading information in this certification or submission is a fine of up to $10,000 U.S., and/or imprisonment for up to five years.''

(h) *Requirements for biointermediate importers.* Any biointermediate importer must meet all the following requirements:

(1) For each biointermediate batch, any biointermediate importer must have an independent third party do all the following:

(i) Determine the volume of biointermediate in the truck, railcar, vessel, or other shipping container.

(ii) Determine the name and EPA-assigned registration number of the foreign biointermediate producer that produced the biointermediate.

(iii) Determine the name and country of registration of the truck, railcar, vessel, or other shipping container used to transport the biointermediate to the United States.

(iv) Determine the date and time the truck, railcar, vessel, or other shipping container arrives at the United States port of entry.

(2) Any biointermediate importer must submit documentation of the information determined under paragraph (h)(1) of this section within 30 days following the date any truck, railcar, vessel, or other shipping container transporting biointermediate arrives at the United States port of entry to all the following:

(i) The foreign biointermediate producer.

(ii) The renewable fuel producer.

(3) The biointermediate importer and the independent third party must keep records of the audits and reports required under paragraphs (h)(1) and (2) of this section for five years from the date of creation.

PART 1090—REGULATION OF FUELS, FUEL ADDITIVES, AND REGULATED BLENDSTOCKS

■ 36. 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

■ 37. Amend § 1090.15 by:

■ a. In paragraphs (a) and (d), removing the text ''(b) and (c)'' and adding, in its place, the text ''(b) through (d)''

■ b. In paragraph (c) introductory text, removing the word ''section'' and adding, in its place, the word ''part'';

■ c. Redesignating paragraph (d) as paragraph (e); and

■ d. Adding a new paragraph (d).

The addition reads as follows:

§ 1090.15 Confidential business information.

* * * * *

(d)(1) The following information contained in any enforcement action taken under this part is not entitled to confidential treatment under 40 CFR part 2, subpart B:

(i) The company's name.

(ii) The facility's name.

(iii) Any EPA-issued company and facility identification numbers.

(iv) The time or time period when any violation occurred.

(v) The quantity of fuel, fuel additive, or regulated blendstock affected by the violation.

(vi) Information relating to the exceedance of the fuel standard associated with the violation.

(vii) Information relating to the generation, transfer, or use of credits associated with the violation.

(viii) Any other information relevant to describing the violation.

(2) Enforcement actions within the scope of paragraph (d)(1) of this section include notices of violation, settlement agreements, administrative complaints, civil complaints, criminal information, and criminal indictments.

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