Appointment

From: Burkholder, Dallas [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=667EF175292D4784997E454A9985B3B3-BURKHOLDER, DALLAS]
Sent: 1/30/2018 10:11:15 PM
To: Korotney, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7b00e16e09654b94bc6146550ca87936-Korotney, David]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]; Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]; Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Piotrowski, Greg [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=40bd03b05b8a409f91fbb8e3432d01ab-Piotrowski, Greg]; Nelson, Karen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3492adee9fab4a02956fcf63f0de048b-Nelson, Kar]; McKenna, Chris [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=451b675850124bf4a9db1d577ee3b9af-McKenna, Ch]; Stahle, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b25318c6014d4fb985288e15143c8596-SSTAHLE]; Li, Ryland (Shengzhi) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7cf0eac9d34b446f88e03f8ec48274f1-Li, Shengzh]; Boylan, Thomas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=32e90a8aa3b04741a8ffb43f7e8814f5-Boylan, Tho]; Michaels, Lauren [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Sutton, Tia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=25e87403f63143acbb959446512a372c-Sutton, Tia]

Subject: Accounting for small refinery exemptions in the 2019 rule
Attachments: Small refinery exemption annual standards.docx; EPAsmallrefinerletterjanuary24.pdf
Location: AA-Room-Office-N95-ConfRoom-AAOTAQ-Office; Call in Info below

Start: 1/31/2018 4:00:00 PM
End: 1/31/2018 5:00:00 PM
Show Time As: Tentative

**Adding a couple of files that may be helpful for the meeting. One is an options document Dave and Lauren worked on. The other is the RFA letter for those who have not yet seen it.

Hello Everyone,
In light of the incoming letter from RFA last week and a number of press articles about small refinery exemptions and their impacts on the RFS standards I thought it would be good to get the annual rule and small refinery exemption teams together to discuss what options/ideas we would have if instructed to address this issue. If I've missed any key people feel free to forward this invite. Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5 If others have materials from previous discussions you think would be helpful feel free to send them around. Thanks!

Dallas

Conference phone number: Personal Phone / Ex. 6
Conference ID: Personal Phone / Ex. 6

RENEWABLE FUELS ASSOCIATION

January 24, 2018

The Honorable Scott Pruitt
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W., 1101A
Washington, DC 20460

Re: Small Refiner Exemptions

Dear Administrator Pruitt:

I am writing to express the Renewable Fuels Association's concern regarding a lack of transparency surrounding the Environmental Protection Agency's ("EPA's") implementation of the small refinery exemption in the Renewable Fuels Standard ("RFS") program. This lack of transparency is particularly disconcerting given that an ill-conceived and unauthorized expansion of this exemption could destabilize the market for renewable fuels and undermine Congress's goals for the RFS program. I would also like to express our concern with the market destabilizing impacts of EPA's failure to require non-exempt obligated parties to make up the volume of fuel that the exempt small refiners would have otherwise provided in a given year.

EPA Criteria for Small Refiner Applications

As you know, when Congress enacted this program as part of the Energy Policy Act of 2005, it provided a temporary exemption from RFS requirements to refineries if they had a crude throughput of no more than 75,000 barrels of crude per day and could that participation in the RFS program would lead to a "disproportionate economic hardship."[1] EPA evaluates these petitions on a case-by case basis, after consulting with the Department of Energy, and allows small refiners to petition for an extension of their exemption based on essentially the same showing. 40 CFR 80.1441(e)(2). Although EPA has indicated that it has evaluated a dozen petitions for exemption for 2016, we are not aware of any instance in which EPA has been willing to disclose any data about the total number of petitions it received and granted for subsequent years, including 2018.[2]

EPA recently indicated that a Congressional directive to follow the Department of Energy's recommendations for exemptions "could impact how EPA evaluates small refinery hardship petitions *and the number and magnitude of exemptions granted*."[3] It would be disappointing, to say the least, if EPA now began to increase the number and magnitude of exemptions granted, a decade after the program began. As the American

[1] 42 U.S.C. §§ 7545(o)(1)(K), (o)(9)(B).

[2] 82 Fed. Reg. 34,206, 34,244 (July 21, 2017).

[3] 82 Fed. Reg. 34,242 (July 21, 2017) (emphasis added).

Petroleum Institute echoed in its recent comments, "refiners have had ample time to adjust their businesses to operate under the burden of the RFS."[4]

Although we understand that the number of small refinery petitions may increase in light of the Tenth Circuit's decision in *Sinclair Wyoming Refining Co. v. EPA*,[5] EPA has yet to give an indication of how it will adjust its perspective on reviewing and processing such petitions. As EPA reevaluates its position of what constitutes a "disproportionate economic hardship" to a small refinery, we hope that EPA will remain true to its previous determination in the 2017 Final Rule that "obligated parties, including small entities, are generally recovering the cost of acquiring the credits…necessary for compliance with the RFS standards through higher sales prices of the petroleum products they sell."[6]

EPA's finding also accords with statements from the American Petroleum Institute, which cautioned that exempt small refiners could unfairly reap windfall profits from the selling of RINs they no longer need.[7]

EPA also stated that it found that the RFS "standards will not have a significant economic impact on a substantial number of small entities" – in fact, even when EPA considered "the extreme scenario where a refiner obtained the RINs necessary for compliance by purchasing separated RINs and did not recover any of the RIN costs through higher prices for the petroleum products sold, the cost to sales ratio was 0.32%."[8]

Although EPA has confirmed in its Response to Comments to the 2018 RVO Final Rule that the Agency "is required to ensure that transportation fuel…contains the applicable volumes of renewable fuel," EPA remains silent on the criteria it will use to evaluate small refinery hardship petitions and any appropriate changes to the renewable volume obligations of non-exempt obligated parties.[9] RFA requests a productive dialogue on this issue between EPA and the renewable fuels industry. The specific topics we would propose include the following:

- Whether and how the criteria to approve an exemption request that EPA described in its Dec. 6, 2016 memorandum will be amended in light of the *Sinclair Refining* decision;

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[4] American Petroleum Institute, *Comments Re: EPA–HQ–OAR–2017–0091 Proposed Rule: Renewable Fuel Standard Program: Standards for 2018 and Biomass-based Diesel Volume for 2019* (Aug. 31, 2017) 2.

[5] *See* 874 F.3d 1159, 1169-72 (Oct. 30, 2017) (amending opinion issued on August 15, 2017).

[6] EPA, *Renewable Fuel Standard Program – Standards for 2018 and Biomass-Based Diesel Volume for 2019: Response to Comments* (Dec. 2016) 470.

[7] American Petroleum Institute, *supra* note 5 ("To the extent that the costs of complying with the RFS program are included in the market value of products sold then an exempt party not subject to the same costs as their competitors is not avoiding a hardship, but rather is being provided with a windfall.").

[8] *Id.*

[9] EPA, *Renewable Fuel Standard Program – Standards for 2018 and Biomass-Based Diesel Volume for 2019: Response to Comments,* (Dec. 2017) 216.

- Whether and to what circumstances EPA would consider departing from the Department of Energy's recommendation on a particular exemption request;

- Whether the Agency will confirm that any economic hardship asserted must be a *direct result* of RFS obligations and not general business factors that may impede a refinery's profitability;

- Whether EPA's Dec. 6, 2016 memorandum outlining financial and other information to be submitted as part of a small refinery exemption request will be updated in light of the recent developments described above;[10]

- When EPA will publicly disclose, on an ongoing basis, the number of small refinery exemptions granted in 2016, 2017 and subsequent years, and whether each of those small refinery volume reductions were accounted for in that year's or the subsequent year's applicable percentages;

- The number of pending small refinery hardship exemptions that are pending before EPA for 2018;

- The total capacity represented by small refineries with pending hardship exemption requests in 2018; and

- When and how EPA intends to communicate any changes in policy to small refiners, the renewable fuels industry, or other regulated parties.

Timing of Small Refiner Exemption Determinations

In the absence of clear guidance from EPA on whether or how it will now reinterpret "disproportionate economic hardship" and how it will factor in DOE recommendations, RFA is concerned that virtually any refiner with crude throughput of less than 75,000 barrels of crude per day could be granted the small refiner exemption -- roughly 10 percent of all domestic refining capacity.[11] To avoid such a market destabilizing scenario, EPA has to ensure that its review of exemption petitions remains discerning and that non-exempt obligated parties make up for any lost volumes of renewable fuels the exempt small refiners would have otherwise provided. Yet EPA has indicated in its 2018 RVO Final Rule that it will *not* adjust percentage standards for 2018 to account for any small refinery exemptions that are approved after the Final Rule,

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[10] Memorandum from Byron Bunker, U.S. EPA, Office of Air and Radiation, *Financial and Other Information to Be Submitted with 2016 RFS Small Refinery Hardship Exemption Requests* (Dec. 6, 2016).

[11] *See* 40 C.F.R. § 80.1405(c) (amount of fuel projected to be produced by exempt small refineries and small refiners is 11.9 percent (gasoline) and 15.2 percent (diesel); *see also* U.S. Energy Information Administration, *Annual Refinery Report*, figure 1 (June 21, 2017) (implying total capacity of small refineries is 9.9 percent).

meaning that any volumes attributable to exempt small refineries will effectively disappear from the RFS program in 2018.[12]

The net effect of the Agency's position, if numerous exemptions are granted, would be to reduce the volumetric RFS mandates outside of the public rulemaking process for establishing renewable volume obligations (RVOs). Refiners would still be complying with the fixed percentages in the Final Rule, but because fewer refiners would be complying, the total volumes of renewable fuels actually blended would drop below required levels. The renewable fuels industry is concerned that EPA's decision to not adjust percentage standards to account for any small refinery exemptions that are approved after an RVO Final Rule hinders its obligation to ensure that transportation fuel contains the required volumes of renewable fuel. As EPA acknowledged in its Response to Comments to the 2018 Final Rule, "CAA section 211(o)(3)(B)(i) requires that the percentage standards established by EPA ensure that the volume requirements are met."[13]

RFA has identified two possible solutions that would enable EPA to provide the certainty of a single annual percentage standard while also responding to its obligation to consider exemption requests. First, EPA could establish an annual cut-off date for the processing of any small refinery exemption petition to ensure that the agency has adequate time to take such exemptions into account in setting the annual percentage standards. If EPA is going to require non-exempt obligated parties to make up the volume of fuel that exempt small refineries would have otherwise provided in a given year only where the agency has sufficient time to reflect that exemption in the annual percentage standards, a small refiner should submit its exemption petition for the following calendar year no fewer than 90 days before EPA promulgates its Final Rule in November of each year (i.e, before July 1st of each year). Small refiner hardship petitions that EPA does not receive by July 1st should be considered eligible for an exemption only for the RVOs of the calendar year after the following year. Although exemption "petitions may be filed at any time … EPA has discretion to determine the length of any exemption that may be granted in response."[14] The statute requires EPA to act on the petition within 90 days of receipt, but the statute is silent on when the hardship exemption, if granted, must begin or end.[15] This change in the processing of exemption petitions would allow EPA to account for gasoline and diesel from exempt small refineries when the exemption petition is submitted well after the RVOs and percentage standards for a given year have been finalized.

Second, as an alternative, EPA could continue granting hardship exemptions in the year that they are received but "true up" the percentage standards in the subsequent calendar year. This would require adjusting a given year's calculation to subtract the gasoline and diesel volumes produced by exempted small refineries in the prior year, if the small refiner submitted a hardship petition after EPA finalized previous year's RVO rule and those exempt small refiner volumes were thus not reflected in EPA's formula

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[12] 82 Fed. Reg. 58,486, 58,523 (Dec. 12, 2017).

[13] EPA, *supra* note 9.

[14] 75 Fed. Reg. 14,670, 14,736 (Mar. 26, 2010).

[15] 42 U.S.C. § 7545(o)(9)(B).

calculating the previous year's percentage standards. EPA has sufficient statutory authority to make this change because the statute does not dictate the formula EPA must use to determine the applicable percentage. Doing so would also help ensure the RFS's volume obligations are being met and would therefore comply with Congressional intent.[16]

The renewable fuels industry and obligated parties deserve greater clarity on the criteria EPA will apply to small refinery petitions going forward. We appreciate your previous statements in support of the continued success of the RFS program, and we look forward to working with you to address this important issue.

Sincerely,

Bob Dinneen
President & CEO

[16] 42 U.S.C. § 7545(o)(3)(B)(i) (stating that the Administrator shall determine an applicable percentage for the following calendar year that "ensures that the requirements [of the volume obligations in the Act] are met.").

Message

From: Cohen, Janet [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D94B854E69CD4F9E80DB946BF9D1C1B2-COHEN, JANET]
Sent: 1/29/2018 7:38:42 PM
To: Birgfeld, Erin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3383bc15dd5542e5bff5c3de13ba9bf2-EBIRGFEL]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]
CC: Sutton, Tia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=25e87403f63143acbb959446512a372c-Sutton, Tia]
Subject: RE: UPDATE: OTAQ: PLATTS - 1/29 - RFS waivers for small refineries
Attachments: 1_29_18 RFS small refinery reference doc.xlsx; 1_29_18 2013 - current small refinery petition counts.docx

Deliberative Process / Ex. 5

From: Birgfeld, Erin
Sent: Monday, January 29, 2018 2:26 PM
To: Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>
Cc: Sutton, Tia <sutton.tia@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>
Subject: RE: UPDATE: OTAQ: PLATTS - 1/29 - RFS waivers for small refineries

Deliberative Process / Ex. 5

From: Argyropoulos, Paul
Sent: Monday, January 29, 2018 2:04 PM
To: Birgfeld, Erin <Birgfeld.Erin@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>
Cc: Sutton, Tia <sutton.tia@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>
Subject: RE: UPDATE: OTAQ: PLATTS - 1/29 - RFS waivers for small refineries

Deliberative Process / Ex. 5

Paul Argyropoulos
Senior Policy Advisor
US EPA
Office of Transportation and Air Quality
Phone: 202-564-1123
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Email: argyropoulos.paul@epa.gov
Web: www.epa.gov

From: Birgfeld, Erin
Sent: Monday, January 29, 2018 2:00 PM
To: Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>
Cc: Sutton, Tia <sutton.tia@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>
Subject: FW: UPDATE: OTAQ: PLATTS - 1/29 - RFS waivers for small refineries

FYI only Deliberative Process / Ex. 5

From: Daguillard, Robert
Sent: Monday, January 29, 2018 1:52 PM
To: Birgfeld, Erin <Birgfeld.Erin@epa.gov>; Mylan, Christopher <Mylan.Christopher@epa.gov>; Millett, John <Millett.John@epa.gov>
Subject: UPDATE: OTAQ: PLATTS - 1/29 - RFS waivers for small refineries

Deliberative Process / Ex. 5

From: Daguillard, Robert
Sent: Monday, January 29, 2018 1:52 PM
To: Birgfeld, Erin <Birgfeld.Erin@epa.gov>; Mylan, Christopher <Mylan.Christopher@epa.gov>; Millett, John <Millett.John@epa.gov>
Subject: OTAQ: PLATTS - 1/29 - RFS waivers for small refineries

OUTLET	**PLATTS**
REPORTER	**MEGHAN GORDON**
DDL	**ASAP**

Deliberative Process / Ex. 5

Thanks, R.

Hi Robert, I'm looking for two items:

1. EPA has apparently agreed to extend Philadelphia Energy Solutions' RFS compliance deadline for 30 days. Can you confirm this?
2. Generally on the small refinery waivers: how many has EPA received? When does it expect to decide on them? Can you say anything about the criteria that will be used?

Thanks again,
Meghan

Meghan Gordon
S&P Global Platts

Message

From: Hengst, Benjamin [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C414E2BF04A246BB987D88498EEFFF06-HENGST, BENJAMIN]
Sent: 1/24/2018 9:44:21 PM
To: OTAQ Materials [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d024a3342082470eada2969a12393750-OTAQ Materi]
CC: Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]; Michaels, Lauren [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]; Korotney, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7b00e16e09654b94bc6146550ca87936-Korotney, David]; Simon, Karl [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4d781d1ad595415db3a4e768c2d2b3fc-Simon, Karl]; Charmley, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fb1828fb00af42ffb68b9e0a71626d95-Charmley, William]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]; Le, Madison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9297d8b52bcb41319ba40d11142ab307-Le, Madison]; Weihrauch, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=74d426b7439045d9a0a65b186ea68b21-Jweihrau]; Manners, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebdb1392504a4b71894970b1a7bb186c-Manners, Mary]; Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]; Li, Ryland (Shengzhi) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7cf0eac9d34b446f88e03f8ec48274f1-Li, Shengzh]; Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]; Dubois, Roland [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=835458b87b574ccbb1704415df8413d1-RDUBOIS]
Subject: Final materials for Thursday 2pm Fuels Weekly with Wehrum (2019 RVO rule)
Attachments: RFS 2019 Annual Rule intro for Wehrum, 1.25.18 v final.pptx

Message

From: Michaels, Lauren [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A44E1A5C23404801BD12621455CDE517-REID, LAURE]
Sent: 1/22/2018 10:01:00 PM
To: Korotney, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7b00e16e09654b94bc6146550ca87936-Korotney, David]; Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]; Dubois, Roland [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=835458b87b574ccbb1704415df8413d1-RDUBOIS]; Li, Ryland (Shengzhi) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7cf0eac9d34b446f88e03f8ec48274f1-Li, Shengzh]; Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]; Lie, Sharyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02041179e5dd4b9e9c5ea63701032c04-slie]; Sobel, Aaron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c4353a8c78d1468db99d14f545de6ec9-Sobel, Aaro]; Shelby, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8e73da7dcf22494c88546c6ef3c6bc27-mshelby]; Le, Madison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9297d8b52bcb41319ba40d11142ab307-Le, Madison]; Anderson, Robert [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=741befd619d44578be1399b296c7c04a-RAnder02]; Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]
CC: Charmley, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fb1828fb00af42ffb68b9e0a71626d95-Charmley, William]; Simon, Karl [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4d781d1ad595415db3a4e768c2d2b3fc-Simon, Karl]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
Subject: RE: First Draft of 2019 Annual Rule Briefing for Bill W.
Attachments: RFS 2019 Annual Rule intro for Wehrumv2 - DK lam.pptx

A few more edits/comments.

From: Korotney, David
Sent: Monday, January 22, 2018 8:46 AM
To: Burkholder, Dallas <burkholder.dallas@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Cc: Charmley, William <charmley.william@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>; Bunker, Byron

<bunker.byron@epa.gov>
Subject: RE: First Draft of 2019 Annual Rule Briefing for Bill W.

A few edits and comments.

From: Burkholder, Dallas
Sent: Friday, January 19, 2018 4:01 PM
To: Dubois, Roland <Dubois.Roland@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Korotney, David <korotney.david@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Cc: Charmley, William <charmley.william@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>
Subject: RE: First Draft of 2019 Annual Rule Briefing for Bill W.

Thanks everyone for your comments. Attached is a revised version of the briefing on the 2019 annual rule for Bill next week. Deliberative Process / Ex. 5

Deliberative Process / Ex. 5 I'm requesting comments on this version of the briefing by noon on Tuesday (1/23) so I have time to make changes based on your comments prior to the pre-brief with Chris on Wednesday.

Dallas

From: Dubois, Roland
Sent: Thursday, January 18, 2018 3:36 PM
To: Michaels, Lauren <Michaels.Lauren@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Korotney, David <korotney.david@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: Re: First Draft of 2019 Annual Rule Briefing for Bill W.

Some suggested edits (in dark red) and comments attached. Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

From: Michaels, Lauren
Sent: Wednesday, January 17, 2018 4:25 PM
To: Li, Ryland (Shengzhi); Machiele, Paul; Hengst, Benjamin; Korotney, David; Burkholder, Dallas; Parsons, Nick; Argyropoulos, Paul; Lie, Sharyn; Sobel, Aaron; Shelby, Michael; Le, Madison; Anderson, Robert; Dubois, Roland; Orlin, David
Subject: RE: First Draft of 2019 Annual Rule Briefing for Bill W.

Some responses to Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

From: Li, Ryland (Shengzhi)
Sent: Wednesday, January 17, 2018 3:49 PM
To: Machiele, Paul <machiele.paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Korotney, David <korotney.david@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: RE: First Draft of 2019 Annual Rule Briefing for Bill W.

This is excellent. My comments on top of Paul's.

From: Machiele, Paul
Sent: Wednesday, January 17, 2018 1:47 PM
To: Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Korotney, David <korotney.david@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: RE: First Draft of 2019 Annual Rule Briefing for Bill W.

My comments, edits, and changes on top of Ben's

Paul

From: Hengst, Benjamin
Sent: Wednesday, January 17, 2018 12:25 PM
To: Michaels, Lauren <Michaels.Lauren@epa.gov>; Korotney, David <korotney.david@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: RE: First Draft of 2019 Annual Rule Briefing for Bill W.

A few edits/comments. Edits in red/bold. This is on top of Lauren's.

Deliberative Process / Ex. 5

I've added **Deliberative Process / Ex. 5**

Deliberative Process / Ex. 5

I have some thoughts Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

From: Michaels, Lauren
Sent: Wednesday, January 17, 2018 11:26 AM
To: Korotney, David <korotney.david@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: RE: First Draft of 2019 Annual Rule Briefing for Bill W.

My edits and comments on top of David's.

From: Korotney, David
Sent: Wednesday, January 17, 2018 8:51 AM
To: Burkholder, Dallas <burkholder.dallas@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: RE: First Draft of 2019 Annual Rule Briefing for Bill W.

My edits/comments are in the attached. Also, I added Deliberative Process / Ex. 5

From: Burkholder, Dallas
Sent: Tuesday, January 16, 2018 5:17 PM
To: Korotney, David <korotney.david@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: First Draft of 2019 Annual Rule Briefing for Bill W.

Attached for review is a first draft of a briefing for Bill W. on the 2019 RFS annual rule. Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5 Comments are requested by noon on Friday, so I can turn around a second version for comment before the pre-brief with Chris and briefing for Bill next week.

Dallas Burkholder

Office of Transportation & Air Quality
US Environmental Protection Agency
(734)214-4766
Burkholder.Dallas@epa.gov

Message

From: Dubois, Roland [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=835458B87B574CCBB1704415DF8413D1-RDUBOIS]
Sent: 1/9/2018 3:13:49 AM
To: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Michaels, Lauren [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Korotney, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7b00e16e09654b94bc6146550ca87936-Korotney, David]; Le, Madison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9297d8b52bcb41319ba40d11142ab307-Le, Madison]; Lie, Sharyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02041179e5dd4b9e9c5ea63701032c04-slie]; Simon, Karl [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4d781d1ad595415db3a4e768c2d2b3fc-Simon, Karl]; Charmley, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fb1828fb00af42ffb68b9e0a71626d95-Charmley, William]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]; Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]; Li, Ryland (Shengzhi) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7cf0eac9d34b446f88e03f8ec48274f1-Li, Shengzh]; Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]; Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Manners, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebdb1392504a4b71894970b1a7bb186c-Manners, Mary]; Weihrauch, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=74d426b7439045d9a0a65b186ea68b21-Jweihrau]; Gustafson, Kurt [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8bb4c659b0734beba13c05f6f095df47-kgustafs]; Anderson, Robert [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=741befd619d44578be1399b296c7c04a-RAnder02]
Subject: Re: Revised Draft of RFS Landscape Briefing
Attachments: The RFS Landscape in 2018 v4 bth.PPTX+RD.PPTX

Some suggested edits in green font and a few comments, attached.

From: Hengst, Benjamin
Sent: Monday, January 8, 2018 4:34 PM
To: Machiele, Paul; Michaels, Lauren; Korotney, David; Le, Madison; Lie, Sharyn; Simon, Karl; Charmley, William; Argyropoulos, Paul; Burkholder, Dallas; Parsons, Nick; Dubois, Roland; Li, Ryland (Shengzhi); Orlin, David; Bunker, Byron; Cohen, Janet; Manners, Mary; Weihrauch, John; Gustafson, Kurt; Anderson, Robert
Subject: RE: Revised Draft of RFS Landscape Briefing

My thoughts. Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Most of my edits, though, are straightforward/basic. Some of them are to make things a bit more neutral in tone. Thanks—Ben

---

From: Machiele, Paul
Sent: Monday, January 08, 2018 3:11 PM
To: Michaels, Lauren <Michaels.Lauren@epa.gov>; Korotney, David <korotney.david@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>; Charmley, William <charmley.william@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>; Gustafson, Kurt <Gustafson.Kurt@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>
Subject: Revised Draft of RFS Landscape Briefing

Thanks to all those who have commented. I've done my best to reflect the comments so far. For any remaining comments, please work off this version.

Paul

Message

From: Korotney, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7B00E16E09654B94BC6146550CA87936-KOROTNEY, DAVID]
Sent: 1/8/2018 4:22:15 PM
To: Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Le, Madison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9297d8b52bcb41319ba40d11142ab307-Le, Madison]; Lie, Sharyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02041179e5dd4b9e9c5ea63701032c04-slie]; Simon, Karl [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4d781d1ad595415db3a4e768c2d2b3fc-Simon, Karl]; Charmley, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fb1828fb00af42ffb68b9e0a71626d95-Charmley, William]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]; Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]; Michaels, Lauren [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]; Dubois, Roland [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=835458b87b574ccbb1704415df8413d1-RDUBOIS]; Li, Ryland (Shengzhi) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7cf0eac9d34b446f88e03f8ec48274f1-Li, Shengzh]; Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
CC: Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Manners, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebdb1392504a4b71894970b1a7bb186c-Manners, Mary]; Weihrauch, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=74d426b7439045d9a0a65b186ea68b21-Jweihrau]; Gustafson, Kurt [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8bb4c659b0734beba13c05f6f095df47-kgustafs]; Anderson, Robert [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=741befd619d44578be1399b296c7c04a-RAnder02]
Subject: RE: Draft RFS Landscape Briefing for your review
Attachments: The RFS Landscape in 2018 v3 - DK.PPTX

My thoughts on version 3.

From: Machiele, Paul
Sent: Friday, January 05, 2018 3:44 PM
To: Le, Madison <Le.Madison@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>; Charmley, William <charmley.william@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Korotney, David <korotney.david@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>

Cc: Cohen, Janet <cohen.janet@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>; Gustafson, Kurt <Gustafson.Kurt@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>
Subject: RE: Draft RFS Landscape Briefing for your review

Thanks for helping to clean up my act. I'm sending around this update to reflect the comments so far, so if you haven't looked at the previous version, please work off of this one. I think the current plan is that we would go over this with Chris next Wednesday and then with Wehrum next Thursday.

Paul

From: Le, Madison
Sent: Friday, January 05, 2018 2:36 PM
To: Lie, Sharyn <Lie.Sharyn@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Charmley, William <charmley.william@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Korotney, David <korotney.david@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>
Cc: Cohen, Janet <cohen.janet@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>; Gustafson, Kurt <Gustafson.Kurt@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>
Subject: RE: Draft RFS Landscape Briefing for your review

Hi Paul,

Edits from me (on top of Sharyn's) in green. My edits are on slide #10:

Deliberative Process / Ex. 5

Thanks,
Madison

From: Lie, Sharyn
Sent: Friday, January 05, 2018 12:04 PM
To: Simon, Karl <Simon.Karl@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Charmley, William <charmley.william@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Korotney, David <korotney.david@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>;

Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>
Cc: Cohen, Janet <cohen.janet@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>
Subject: RE: Draft RFS Landscape Briefing for your review

Paul-

Some edits from me in red.

Cheers,
Sharyn

From: Simon, Karl
Sent: Friday, January 05, 2018 11:55 AM
To: Machiele, Paul <machiele.paul@epa.gov>; Charmley, William <charmley.william@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Korotney, David <korotney.david@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>
Cc: Cohen, Janet <cohen.janet@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>
Subject: RE: Draft RFS Landscape Briefing for your review

Sharyn will be sending along a few additional comments Deliberative Process / Ex. 5 I think this looks ok with a few comments. Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5 Thanks

From: Machiele, Paul
Sent: Thursday, January 4, 2018 11:45 AM
To: Charmley, William <charmley.william@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Korotney, David <korotney.david@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>
Cc: Cohen, Janet <cohen.janet@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>
Subject: Draft RFS Landscape Briefing for your review

Before we go to Wehrum on the specifics of the 2019 RVO rule, 2016 Remand, etc. Chris would like us to give him a briefing providing him with an overview of the landscape of the various interconnected issue for the coming year. Attached is my first attempt at pulling together such a briefing. Send me any thoughts, comments, edits, etc. that you have. The goal is not to get into the details of the issues and options of any of the topics, but just provide enough information to give him the understanding of how the many different topics and issues are interconnected. If I left

anyone off the email chain on this, please forward. We don't yet have a schedule for this, but my assumption is that we will go over this with Chris next week.

PaulM

Message

From: Korotney, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7B00E16E09654B94BC6146550CA87936-KOROTNEY, DAVID]
Sent: 12/21/2017 8:25:05 PM
To: Michaels, Lauren [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]; Dubois, Roland [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=835458b87b574ccbb1704415df8413d1-RDUBOIS]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]; Herzog, Jeff [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=abd7b07deb9f43cfa7238c4aa38c3da6-Herzog, Jeff]; Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Weihrauch, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=74d426b7439045d9a0a65b186ea68b21-Jweihrau]; Manners, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebdb1392504a4b71894970b1a7bb186c-Manners, Mary]; Le, Madison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9297d8b52bcb41319ba40d11142ab307-Le, Madison]; Li, Ryland (Shengzhi) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7cf0eac9d34b446f88e03f8ec48274f1-Li, Shengzh]
Subject: RE: Final-ish briefing for Wehrum on 2016 remand
Attachments: 2016 Remand with Wehrum ver 4.pptx

With the tweaks suggested by Paul M.

From: Michaels, Lauren
Sent: Thursday, December 21, 2017 2:25 PM
To: Machiele, Paul <machiele.paul@epa.gov>; Korotney, David <korotney.david@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Herzog, Jeff <Herzog.Jeff@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>
Subject: RE: Final-ish briefing for Wehrum on 2016 remand

Deliberative Process / Ex. 5

From: Machiele, Paul
Sent: Thursday, December 21, 2017 12:36 PM
To: Korotney, David <korotney.david@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Herzog, Jeff <Herzog.Jeff@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>
Subject: RE: Final-ish briefing for Wehrum on 2016 remand

Here's a few mostly editorial changes from me. Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Paul

From: Korotney, David
Sent: Wednesday, December 20, 2017 3:31 PM
To: Orlin, David <Orlin.David@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Herzog, Jeff <Herzog.Jeff@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>
Subject: Final-ish briefing for Wehrum on 2016 remand

The briefing for Wehrum on the 2016 remand was scheduled for Thursday Dec 21, but apparently Bill has decided to take Thursday and Friday off. So, I expect that we will not be doing this briefing until January (I am out for the next two weeks burning up use-or-lose). Ben, I'll leave it to you to reschedule.

The attached incorporates all edits and comments I received. I am providing it now in case we still end up briefing Wehrum this week, or while I am out

One thing to note:

Deliberative Process / Ex. 5

Message

From: Argyropoulos, Paul [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0149B93D2780437A9C2B6D8477DF7991-PARGYROP]
Sent: 1/29/2018 6:24:48 PM
To: Birgfeld, Erin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3383bc15dd5542e5bff5c3de13ba9bf2-EBIRGFEL]
Subject: RE: OTAQ Daily News Brief

Yup, that's it.

Paul Argyropoulos
Senior Policy Advisor
US EPA
Office of Transportation and Air Quality
Phone: 202-564-1123
Mobile: 202-577-9354
Email: argyropoulos.paul@epa.gov
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From: Birgfeld, Erin
Sent: Monday, January 29, 2018 12:29 PM
To: Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>
Subject: RE: OTAQ Daily News Brief

This one?

https://www.nytimes.com/2018/01/28/business/energy-environment/oil-boom.html?hp&action=click&pgtype=Homepage&clickSource=story-heading&module=first-column-region&region=top-news&WT.nav=top-news

We can include that tomorrow. Thanks for the heads up!

From: Argyropoulos, Paul
Sent: Monday, January 29, 2018 12:18 PM
To: Birgfeld, Erin <Birgfeld.Erin@epa.gov>
Subject: RE: OTAQ Daily News Brief

Howdy,

There's a really interesting article on petroleum in the NY Times – Front page. If you can send that around it might be of interest to the team as well.

Thanks, Paul

Paul Argyropoulos
Senior Policy Advisor
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From: Birgfeld, Erin
Sent: Monday, January 29, 2018 11:10 AM
To: Birgfeld, Erin <Birgfeld.Erin@epa.gov>
Subject: OTAQ Daily News Brief

Good Morning

Welcome to OTAQ's daily news listserv. The OTAQ Daily News Brief compiles articles from around the world focused on our office's work; this includes everything from light-duty/heavy-duty vehicles, electric vehicles, air quality studies, aircrafts, boats and ships, to alternative fuels, and of course, climate change. If you'd like to be removed or would like to add another person to the listserv please contact Christopher Mylan at mylan.christopher@epa.gov. Feedback is welcomed. Thanks and enjoy!

California will put 5 million electric cars on the road by 2030, Gov. Jerry Brown says

By LIAM DILLON, LA Times

A camouflaged Jaguar I-Pace on a November test run in Los Angeles. The all-electric compact SUV goes on sale in mid-2018. (Jaguar)

California Gov. Jerry Brown wants to put 5 million electric cars on the state's roads by 2030.

Brown announced the new goal in his State of the State speech this week, and formalized the target in an executive order issued Friday.

"This executive order aims to curb carbon pollution from cars and trucks and boost the number of zero-emission vehicles driven in California," Brown said in a statement. Currently, the state's goal is to have 1.5 million such cars on the road by 2025. Transportation is California's largest source of greenhouse gases. Two years ago, lawmakers approved a target of reducing carbon emissions by 40% below 1990 levels by 2030.

EPA, California must compromise in their fight over weakened fuel-efficiency standards, experts say

by Josh Siegel | Washington Examiner

The Trump administration will have to compromise if it's serious about maintaining "one national program" for vehicle emissions rules and wants to avoid a legal battle with California, experts say. California state leaders have defied the Trump administration on issues including climate change, immigration, and taxes – and environmental regulations on cars and trucks is no exception

Lack of transparency over small refiner exemptions undermines RFS

By Renewable Fuels Association | Bob Dineen

There is a troubling "lack of transparency" in EPA's management of the Renewable Fuel Standard's small refinery exemption provisions, according to a letter sent this week to EPA Administrator Scott Pruitt by the Renewable Fuels Association. The letter from RFA President and CEO Bob Dinneen warns that "an ill-conceived

and unauthorized expansion of this exemption could destabilize the market for renewable fuels and undermine Congress's goals for the RFS program."

Environmental Justice Should Be Core Principle of Murphy Administration
Tom Johnson | New Jersey Spotlight

The Murphy administration needs to focus on the disproportionate impacts of pollution and contamination on poor urban communities, according to a transition team report for Gov. Phil Murphy. The 15-page environmental and energy report suggests that addressing the environmental-justice disparities in low-income and mostly communities of color ought to be promoted as a core principle of the new administration, one that is reflected across all departments and programs. The recommendation, one of four overarching priorities identified by the transition team, calls for reducing the air and water pollution burdening those communities, and proposes that a substantial portion of the new funding on its way be dedicated to these initiatives.

EPA Pledges 'Quick' Action On Rule To Codify Global Aircraft CO2 Limits
Inside EPA

EPA is moving to issue regulations consistent with an international carbon dioxide standard for new aircraft engines, endorsed by the industry as crucial to certifying its planes, "as quickly as possible" according to a top agency transportation and air quality official. The remarks could quash any lingering uncertainty that EPA plans to move forward with the regulation, after the agency told its science advisers last summer that it continued to work on the measure yet the Trump administration listed it as a "long-term action" in its most recent regulatory agenda, meaning it was not expected to advance during the coming year. "The administrator has decided we are going to adopt it," EPA transportation and air quality chief Chris Grundler said during Jan. 26 remarks at an SAE International meeting in Washington, D.C.

Automakers rigged study involving cartoon-watching monkeys
E&E

German automakers, desperate for evidence to dispute the harmful effects of diesel exhaust, financed a 2014 experiment for monkeys to watch cartoons. Ten monkeys squatted in airtight chambers to watch television while scientists pumped in fumes from a diesel Volkswagen Beetle. The German companies — BMW, Daimler and Volkswagen — wanted to prove their latest technology was cleaner than the older, smokier models.

Message

From: Industrial BIOtech SmartBrief [bioie@smartbrief.com]
Sent: 7/18/2018 7:14:11 PM
To: Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]
Subject: Research uncovers the why behind CRISPR-Cas9's random failures

Created for **argyropoulos.paul@epa.gov** | Web Version

July 18, 2018

Intelligence for Growing the Biobased Economy **SIGN UP · FORWARD**

RENEWABLE CHEMICALS

Anellotech, Suntory partner for development of biobased plastic bottles

Anellotech's Bio-TCat technology will be used to produce biobased plastic bottles derived from biomass feedstock materials, such as sugar cane bagasse, wood and sawdust, through a partnership with Suntory. "Having collaborated with Suntory since 2012 to advance development of cost-competitive bioaromatics, we hope biobased plastics made from our Bio-TCat process and a 100% biobased bottle soon become a reality," said Anellotech President and CEO David Sudolsky.
Bio-Based World News (7/17)

ADVANCED BIOFUELS

US weekly ethanol production drops by 34,000 barrels per day

Ethanol production in the US reached an average of 1.033 million barrels per day, down by 34,000 barrels per day when compared with the previous week and marked a seven-week low, per government data. Meanwhile, the four-week average declined to 1.059 million barrels per day.
Biofuels Digest (7/14)

EPA discards plan of forcing US refiners to blend more biofuels

The Environmental Protection Agency abandoned a plan that would have forced refiners to blend 11.76% biofuels into their gasoline and diesel, up from the current 10.88%, to compensate for volumes

likely to be exempt under the EPA's small refinery hardship waiver program. The decision would have possibly increased compliance credit prices, which have fallen to multiyear lows.
Reuters (7/11)

SYNTHETIC BIOLOGY AND CRISPR

Research uncovers the why behind CRISPR-Cas9's random failures

The Cas9 enzyme that stays bound to the DNA cut point, which subsequently blocks the DNA repair process, causes random failures in the CRISPR-Cas9 gene-editing process, revealed a study published in the journal Molecular Cell. "Uncovering the mechanism behind this phenomenon helps us better understand how Cas9 interactions with the genome can cause some editing attempts to fail and that, when designing a genome editing experiment, we can use that understanding to our benefit," lead study author Ryan Clarke said.
New Atlas (7/12)

Ginkgo Bioworks exec offers views on synthetic biology

Using synthetic biology to create products can "make things in a way that's more sustainable or ethically sourced than usual," said Christina Agapakis, creative director of Ginkgo Bioworks. Agapakis noted that "thinking about competition with what it's trying to replace" is one of the biggest issues with scaling synthetic biology projects.
The Verge (7/12)

CONSUMER PRODUCTS, NUTRITION, FLAVORINGS

EpiBiome's phage technology purchased by Locus

EpiBiome's high-throughput bacteriophage discovery platform was purchased by CRISPR-Cas3-engineered precision antibacterial products developer Locus Biosciences for an undisclosed amount. The deal will help Locus develop CRISPR-engineered phage antibiotic-resistant bacterial infection therapies.
Genetic Engineering & Biotechnology News (7/17)

DEDICATED FEEDSTOCKS

Researcher determining potential of diesel tree in biofuel production

Researcher Christo Smit is conducting trials in South Africa on the diesel tree, Millettia pinnata, to determine its potential in biofuel production using the same mills that press sunflower and soya to produce oil. "Diesel trees perform best when planted in good-quality soils, but they're more saline-resistant than most other crops, making them suitable for marginal soils," Smit says.

Biofuels Digest (7/14)

Mexican researchers lead study on using Cocoyol palm fruit as biofuel feedstock

An international study led by researchers from the Center for Scientific Research of Yucatan in Mexico is investigating the potential of the Cocoyol palm fruit as a feedstock for producing solid biofuel and advanced composite materials. Researchers have begun conducting biomimicry tests to better understand the fruit and how it could be used to its full potential.

Biofuels Digest (7/17)

BIO NEWS

World Congress is this week

The 2018 BIO World Congress on Industrial Biotechnology is happening this week in Philadelphia. Be sure to check out the Biotech-now.org blog for conference updates and follow along on Twitter using #BIOWC18.

Learn more about BIO: BIO I & E | Conferences and Events | About BIO | Membership

Someday you will be old enough to start reading fairy tales again.

C.S. Lewis,
writer and academic

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Privacy Policy (updated May 25, 2018) | Legal Information

The American Fuel & Petrochemical Manufacturers ("AFPM")[1] and the American Petroleum Institute ("API")[2] submit these comments in response to the Environmental Protection Agency's ("EPA") proposed rule entitled, *Renewable Fuel Standard Program: Standards for 2018 and Biomass-Based Diesel Volume for 2019*.[3] AFPM's and API's members are directly regulated as obligated parties under the Renewable Fuel Standard ("RFS") and will be substantially affected by the percentage standards EPA sets in the final rule.

The RFS is at a crucial juncture. As the Agency is well aware, the problems facing the RFS have multiplied over the ten years that the program has been implemented. EPA has been required to continuously invoke its waiver authority to reduce statutory volumes in every compliance year since 2010. Cellulosic biofuel production has either been nonexistent or *de minimis* since the volumetric requirements first took effect, forcing the Agency to cumulatively waive 15.65 billion gallons of cellulosic biofuel requirements through 2017. From 2014 to 2017, EPA was further compelled by the circumstances to cumulatively waive 14.30 billion gallons of total renewable fuel and 12.06 billion gallons of advanced biofuel.

This is plain evidence of a severely flawed statutory scheme, emanating from an unjustified expansion of the RFS program in the Energy Independence and Security Act of 2007. But EPA has compounded the problem, for instance by failing to take "neutral aim at accuracy" in projecting volumes of cellulosic biofuel and by failing to set appropriate standards accordingly.[4] The statutory flaws of the RFS have been further exacerbated by real-world constraints on producing renewable fuels and integrating them into transportation fuel. The current and ever-increasing required volumes of renewable fuels volumes simply cannot be forced into a system in which there is a flat or decreasing consumer demand for transportation fuel and an inability of vehicles and equipment to use such fuels. Obligated parties and consumers will pay a severe economic price if they are forced

---

[1] AFPM is a national trade association representing virtually all U.S. refiners and petrochemical manufacturers. AFPM's refinery members comprise more than 95 % of U.S. refining capacity.

[2] API is a national trade association representing more than 625 member companies involved in all aspects of the oil and natural gas industry. API's members include producers, refiners, suppliers, pipeline operators, and marine transporters, as well as service and supply companies that support all segments of the industry.

[3] 82 Fed. Reg. 34,206 (July 21, 2017), referenced as "proposed rule" or "2018 RFS."

[4] *API v. EPA,* 706 F.3d 474, 476 (D.C. Cir. 2013).

to absorb the volumes and attendant costs otherwise mandated by the statute and EPA through its rulemakings.

Most recently, the United States Court of Appeals for the District of Columbia Circuit ("D.C. Circuit") vacated EPA's use of its general waiver authority with respect to setting 2016 renewable fuel volumes while upholding the Agency's use of cellulosic waiver authority to set total renewable, advanced biofuel, and cellulosic biofuel standards for the 2014, 2015, and 2016 compliance years.[5] The court also agreed with EPA's determination not to consider the number of "banked" Renewable Identification Numbers ("RINs") in setting annual RFS volume requirements.

AFPM and API disagree with several aspects of the court's opinion including the court's analysis of the limits on EPA's general waiver authority. But even under the constraints the court articulated, EPA has the statutory authority to reduce RFS standards for 2018 beyond the levels it has proposed. Our specific recommendations on the appropriate levels for total renewable, advanced biofuel, biomass-based diesel ("BBD"), and cellulosic biofuel levels for 2018 are contained in the comments that follow.

To promulgate a final rule that includes achievable volumes of renewable fuel, EPA may utilize its general waiver authority on the basis of both "severe economic harm" and "inadequate domestic supply." Exercise of the "severe economic harm" prong of its general waiver authority requires EPA to find that enforcing any of the four required renewable fuel volumes would cause severe economic harm on a national, regional, or state level. EPA need only find that such harm would occur through imposition of the statutory renewable fuel volumes in order to avail itself of authority to waive volumetric requirements "in whole or in part."[6] Such harm will occur if EPA imposes the statutory volumes for 2018, and EPA may therefore waive those volumes pursuant to this provision.

The second prong of the general waiver authority may permissibly be used based solely on consideration of "domestic" supplies of renewable fuel, disregarding the availability of foreign-origin renewable fuels to set annual standards. When the RFS was amended in 2007 to greatly expand requirements related to renewable fuel, Congress indicated that its purpose was to "move the United States toward greater energy independence and security, to increase the production of clean renewable fuels, [and] to protect consumers."[7] A waiver based on "inadequate *domestic* supply" must be understood in this context and with reference to the plain meaning of the adjective "domestic." Thus, EPA may further reduce the volumes of renewable fuel it has proposed to the extent achieving those volumes requires reliance on foreign imports.

We note that, while Congress directed EPA to consider "domestic" supplies in setting the volumetric requirements, it expressly allowed consideration of imported renewable fuels for purposes of RIN generation and compliance. This dichotomy helps to accomplish two congressional purposes: increasing energy independence by focusing on domestic production of renewable fuels in setting the volumetric requirements while addressing costs to consumers and the impact of renewable fuel on job creation and rural economic development.

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[5] *Americans for Clean Energy v. EPA*, No. 16-1005, July 28, 2017 (D.C. Cir.).
[6] CAA 211§(o)(7)(A).
[7] Energy Independence and Security Act of 2007, Pub. Law 110-140.

If you have specific questions, please contact Tim Hogan at (202) 552-8462, or Frank Macchiarola at (202) 682-8167.

Sincerely,

Tim Hogan Director, Motor Fuels American Fuel & Petrochemical Manufacturers	Frank Macchiarola Group Director, Downstream & Industry Operations American Petroleum Institute

COMMENTS OF THE
AMERICAN FUEL & PETROCHEMICAL MANUFACTURERS
AND THE AMERICAN PETROLEUM INSTITUTE

Renewable Fuel Standard Program: Standards for 2018

and Biomass-Based Diesel Volume for 2019

Docket ID No. EPA-HQ-OAR-2017-0091

Table of Contents

I. Summary of Comments 1

II. 2018 Proposed RFS Standards 3

- A. EPA Must Continue to Comply with Statutory Deadlines 3
- B. EPA Should Consider the Overall Cost of the RFS Program in Setting Volumetric Requirements for 2018 3
- C. EPA Should Further Reduce Advanced Biofuel and Total Renewable Fuel Volumes for 2018 5

III. RIN Carryover 7

- A. EPA Must Preserve the RIN Bank to Ensure Compliance Flexibility and a Well-Functioning RIN Market 8
- B. The Number of Carryover RINs May be Insufficient to Ensure Liquidity in the RIN Market 10
- C. EPA Should Ensure the 2017 RIN Bank Will be Sufficient to Allow Obligated Parties to Comply with their 2018 RFS Obligations, as Contemplated by the Statute 11

IV. EPA Must Limit the Average Rate of Ethanol Blending for 2018 to 9.7 Percent 12

- A. Total Renewable Fuel 13
- B. E0 Remains in High Demand, Limiting the Ability to Introduce More Ethanol into Commerce 15
- C. E15 Cannot be Widely Used and Thus Does Not Provide a Solution 17
- D. EPA Overestimates the Amount of E85 the Market Can Absorb 18
- E. Conclusion Concerning Ethanol Use and Total Renewable Fuel Volumes 20

V. EPA Should Recalculate the Cellulosic and Advanced Biofuel Volumes for 2018 By More Closely Aligning Projected Cellulosic Biofuel Volumes with Actual Production, and Should Fully Exercise Its Cellulosic Waiver Authority. 21

- A. EPA's New Methodology to Estimate Cellulosic Biofuel Production. 21
- B. EPA Should Further Reduce Advanced Biofuel Volume Requirements 24
- C. EPA Should Focus on the Domestic Supplies of Renewable Fuels When Setting RFS Volumetric Requirements 26

VI. Recommendation on 2018 Renewable Fuel Volumes/Use of "Severe Economic Harm" and "Inadequate Domestic Supply" General Waiver Authorities 29

- A. EPA May Waive Applicable Volumes to Prevent Severe Economic Harm 30
- B. The "Inadequate Domestic Supply" Waiver is Available to Reduce Required Volumes of Renewable Fuel 31
  - i. A General Waiver Based on Inadequate Domestic Supply Permits EPA to Focus on Domestic Production 32

ii. Focusing on Domestically-Produced Renewable Fuels is Consistent with *Americans for Clean Energy* 33

VII. Biomass-Based Diesel in 2019 33

VIII. Suggestions for Improving the RIN Market 35

IX. Conclusion 37

I. Summary of Comments

AFPM and API appreciate EPA's continuing recognition of the real-world constraints, including anticipated costs that affect the RFS program.[8] For 2018, EPA has relied on its cellulosic waiver authority[9] to propose reductions in statutory volumes for total renewable fuel, advanced biofuels, and cellulosic biodiesel, but they are not enough. EPA must consider all effects of the E10 blendwall and other constraints and conditions that limit the use of ethanol and other renewable fuel, such as BBD, in transportation fuel. This recognition is key to understanding the real-world limitations on renewable fuel mandates in 2018 and future compliance years.

We also support EPA's proposal to maintain the full amount of RINs that have been reserved, or "banked," for future use. Clean Air Act ("CAA") §211(o)(5), which provides for the generation of renewable fuel credits, requires this action. In addition, maintaining a sufficient RIN bank will help mitigate some of the costs imposed by the RFS program, improve flexibility in compliance, and improve the functionality of the RIN marketplace.

AFPM and API support EPA's reduction of the required volumes of renewable fuel in recognition of the real-world constraints on their consumption. We also support EPA's decision to maintain a sufficient level of "banked RINs" to ensure compliance flexibility and a functioning RIN market. The Agency, however, should further revise the required volumes downward and make several improvements to the proposed rule including the following:

- Use the general waiver authority to reduce statutory volumes of total renewable fuel and advanced biofuels. Fully implementing the statutory volumes of renewable fuel would result in severe economic harm. EPA may also use its general waiver authority on the basis of an inadequate *domestic* supply.

- Base its assessment of total ethanol volumes in 2018 on the assumption that ethanol blended in gasoline will be limited to 9.7% by volume.[10] As AFPM and API have pointed out in past comments, 9.7% ethanol blended gasoline, on average, represents a practical limit on ethanol use in the nation's pool of gasoline when consideration is given to the demand for E0 and compliance margins for E10 fuel. It also reflects legal and practical constraints, including refueling infrastructure and other environmental regulatory requirements that limit the use of ethanol blends above 10 percent.

- Lower projected volumes for cellulosic biofuel beyond the levels proposed to reflect the continuing, extremely limited production of liquid cellulosic biofuel and an overall production shortfall of 39 million gallons in 2016. Under applicable precedent, EPA must

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[8] *Id.* at 34,309.

[9] As the D.C. Circuit recently affirmed in *Americans for Clean Energy v. EPA*, No. 16-1005 (D.C. Cir. July 28, 2017) (slip op.), available at https://www.cadc.uscourts.gov/internet/opinions.nsf/5F1D8BC9815C4C698525816B00543925/$file/16-1005-1686284.pdf, "[t]he cellulosic waiver provision grants EPA 'broad discretion' to consider a variety of factors – including constraints on the demand for advanced biofuel – when determining 'whether and in what circumstances' to reduce the advanced biofuel volume requirement." Slip op. at 76 (quoting *Monroe Energy, LLC v. EPA*, 750 F.3d 909, 915 (D.C. Cir. 2014)).

[10] EPA does not consider E85 in the definition of gasoline.

take a "neutral aim at accuracy"[11] with respect to cellulosic biofuel volumes.[12] EPA, however, has in fact overestimated cellulosic biofuel production in every year for which it projected production levels since 2010.

- EPA should better utilize information developed by the Energy Information Administration ("EIA") and further increase its projection of the actual volume of E0 consumed in the U.S. While EPA has revised its E0 projections upwards in the proposed rule compared to the projections EPA used in prior years, a significant discrepancy with EIA's estimates of E0 consumption remains. This discrepancy needs to be resolved between the two agencies so that the final rule can incorporate more precise information on actual E0 use and what amounts of E0 are reasonable to project will be used in 2018.

- Set reasonable volumetric obligations for advanced biofuels, including BBD, that consider the impact of such obligations on the energy independence of the United States, focusing on the domestic production of such fuels. Excessive mandates serve to encourage imports of renewable fuel over time, particularly of biodiesel. Per Congress's express instruction, RINs generated from imported fuel should continue to be allowed to be used for compliance purposes.

- Recalculate renewable fuel volumes for total renewable fuel and advanced biofuels in 2018 based on lowered volumetric requirements for cellulosic and biodiesel that more accurately reflect expected domestic production. Consistent with the proposed rule, EPA should reduce both total renewable fuel and advanced biofuel volumes by the full amount of the 2018 cellulosic biofuel waiver due to both supply and demand constraints. EPA should also lower the proposed level of the 2019 volume for BBD to reflect the anticipated domestic production of BBD.

- Review and adjust guidance documents and relevant regulations that have resulted in requirements for obligated parties to replace "invalid RINs" despite those parties' lack of any actual knowledge of the RINs' invalidity.

- Recognize that maintaining the confidentiality of the EPA Moderated Transaction Sytem ("EMTS") RIN generation data is essential and is necessary to ensure a level playing field. AFPM and API support any additional safeguards or protocols to ensure these data are made available to all industry participants at the same time. EPA should consider announcing in advance when RIN generation data will be published each month, or adopting a schedule for releasing the data at a regular fixed date and time to facilitate equal market access.

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[11] 706 F.3d 474 (D.C. Cir. 2013).
[12] CAA 211§(o)(7)(A).

AFPM and API recommend that EPA determine "reasonably attainable" volumes of renewable fuel and utilize its available waiver authorities to finalize the following volumes in connection with the 2018 RFS implementation rule:

	Million RINs
Ethanol	13,960
Non-Ethanol Cellulosic	200
Biomass-Based Diesel	2,360
Other Advanced Biofuel	30
D6 Biodiesel/Renewable Diesel	500
Total Renewable Fuel Volume 2018	17,050

II. 2018 Proposed RFS Standards

A. EPA Must Continue to Comply with Statutory Deadlines

We are pleased that EPA issued the 2018 proposal in a timeframe that should allow the Agency to meet the November 30 statutory deadline for promulgating a final rule. We note that the statute specifies an earlier deadline of October 31, 2017, for setting the final 2019 volume for BBD. We believe that if the Agency acts promptly, it may be able to meet that clear statutory deadline. While EPA did not meet the deadline for promulgation of 2017 RFS standards, missing the required date by approximately 2 weeks,[13] AFPM and API recognize that the Agency has made substantial improvements in bringing the RFS program more in line with the applicable statutory schedule.

We urge the Agency to continue down this path toward consistent timeliness. Regulatory certainty is critically important to obligated parties, who must develop their RIN compliance strategies well before a compliance period begins. In the past few years, obligated parties have suffered as EPA: (1) proposed a rule for 2014 that was subsequently withdrawn; (2) abruptly announced that it would combine three years of RFS requirements into a single rulemaking; (3) substantially delayed promulgating a final, combined 2014-2016 rule; (4) imposed two years of retroactive volumetric requirements for 2014 and 2015; and (5) created chronic uncertainty as to how the Agency would approach the use of prior year RINs and when compliance with retroactive standards would be required. While EPA ultimately "rolled forward" RFS annual requirements to mitigate the effects of its long delays in promulgating RFS standards, the RIN market has experienced continuing volatility over the last four years as well as periods when prices rapidly escalated.

B. EPA Should Consider the Overall Cost of the RFS Program in Setting Volumetric Requirements for 2018

As EPA readily acknowledges, the RFS program necessarily imposes a cost to the extent that "renewable fuels cost more than the petroleum fuels they displace."[14] This cost is substantial, and we

[13] Renewable Fuel Standard Program: Standards for 2017 and Biomass-Based Diesel Volume for 2018, 81 Fed. Reg. 89,746 (Dec. 12, 2016).

[14] Screening Analysis for the Renewable Fuel Standard Program Renewable Volume Obligations for 2018, Burkholder, Parsons and Sutton ("Screening Analysis") at 5.

are pleased that EPA is taking these costs into account in setting the volumetric requirements for 2018.

For example, since CAA §211(o) does not provide applicable volumes for BBD past calendar year 2012, EPA is required to set such levels in accordance with the criteria contained in CAA §211(o)(2)(B)(ii). These criteria include "the impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods."[15] Therefore, EPA is required to take into account the large differential in costs between petroleum diesel and BBD when setting applicable volume requirements.

EPA has estimated the cost difference between soybean biodiesel and petroleum diesel at $1.34 to $1.83 per gallon on a diesel-gallon equivalent basis.[16] The 2017 BBD volume is 2.1 billion gallons, and EPA proposes to maintain this volume in 2018. Given the cost differential between petroleum diesel and soybean biodiesel, EPA's biodiesel volumetric requirement for 2018 likely would impose substantial additional costs[17] on obligated parties and American consumers who would otherwise use petroleum diesel.[18]

With regard to cellulosic biofuel, the CAA requires EPA to reduce the applicable volume of cellulosic biofuel to the "projected volume available during the calendar year."[19] EPA has used a variety of methodologies to project the volume of cellulosic biofuel in different RFS rulemakings. In the 2018 proposed rule, EPA relies on a narrower range of projected production volumes for both new facilities and "consistent producers" of liquid cellulosic biofuel.[20] EPA then projects volumes for liquid cellulosic biofuel producers on this basis, while using a separate methodology to project production for compressed natural gas and liquid natural gas from biogas.[21]

Since the statute requires projection of the "available" cellulosic biofuel volume, in making volume projections for 2018 EPA must consider costs; simply stated, costs are an appropriate consideration when deciding whether something is "available."[22] Indeed, EPA would err if it failed to consider "an important aspect of the problem," like cost considerations here, when deciding whether regulation is appropriate.[23] In the proposed rule, EPA estimated that cellulosic biofuel costs $3.06 to $4.31 on a gasoline-gallon energy equivalent basis, compared with a projected wholesale cost of gasoline for 2018 of $1.69 per gallon.[24] Thus, to the extent that cellulosic biofuel is mandated, substantial costs

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[15] CAA §211(o)(2)(B)(ii)(V).

[16] Cost Impacts of the Proposed 2018 Annual Renewable Fuel Standards, Michael Shelby, Dallas Burkholder and Aaron Sobel ("Cost Impact Memorandum") at 5.

[17] Using EPA's cost impact data cited above in nt. 14, 2.1 billion gallons * $1.34/gallon = $2.814 billion; 2.1 billion gallons * $1.83/gallon = $3.834 billion.

[18] EPA has proposed a minimum requirement that is more than double the statutory minimum of one billion gallons. CAA 211§(o)(7)(A). EPA also projects that the minimum required level of the advanced biofuel requirement will drive additional BBD use. But unlike ethanol, which may be added to boost octane levels in finished fuel, BBD is a costlier *substitute* for conventional diesel, has a lower energy content, and performs poorly in cold weather. Thus, the market for BBD in the absence of the RFS would be more limited.

[19] CAA §211(o)(7)(D)(i).

[20] 82 Fed. Reg. at 34,218.

[21] *Id.* at 34,220.

[22] CAA 211§(o)(7)(A).

[23] *Michigan v. EPA* 135 S. Ct. 2699, 2707 (2015), citing *State Farm Mut. Automobile Ins. Co*, 463 U.S. 29, 43.

[24] Cost Impact Memorandum at 11. While required volumes for cellulosic biofuel are much lower than for BBD, costs have risen in recent years as EPA has substantially increased annual cellulosic biofuel requirements.

are imposed on obligated parties and consumers that would otherwise have no economic incentive to use a much more expensive fuel.

In addition to the costs borne by those who purchase renewable fuels for blending, costs are also imposed on obligated parties who must purchase RINs for compliance. EPA has estimated that in the period from May 2016 to April 2017, prices for RINs averaged $0.76 per gallon-RIN for conventional biofuel to $2.25 per gallon-RIN for cellulosic biofuel.[25] The extent to which any obligated party must purchase RINs for compliance varies, but the overall number of RINs that must ultimately be surrendered to EPA for compliance -- *19.28 billion RINs in 2017*– inevitably imposes additional costs.[26] Some refiners may be able to pass through part of these costs to the consumer while some may not. In either case, the RFS raises costs compared with a fuel market that is not subject to annual renewable fuel mandates.[27]

When considered in the aggregate, the RFS ranks among the nation's more expensive energy/environmental programs.[28] We are therefore encouraged that EPA has considered costs among the other factors in proposing the total renewable fuel, advanced biofuel, and cellulosic biofuel volume requirements for 2018.[29]

C. EPA Should Further Reduce Advanced Biofuel and Total Renewable Fuel Volumes for 2018

For 2018, EPA has proposed small reductions in the RFS volumetric standards for cellulosic biofuel, advanced biofuel, and total renewable fuel when compared to the final standards EPA promulgated for the 2017 RFS.

	Statutory (billion gallons)	Proposed 2018 (billion gallons)	Proposed 2019 (billion gallons)
Cellulosic biofuel	7.0	0.238	n/a

[25] Screening Analysis, Table 7.

[26] There are also additional costs that obligated parties must bear to secure and demonstrate compliance with the RFS (*e.g.,* transactional costs of acquiring RINs, recordkeeping, and other internal compliance costs). Obligated parties must also bear costs related to EPA's Quality Assurance Plan, which was created in response to widespread fraud in the generation of RINs. These costs must either be borne by obligated parties or recovered, if possible, through the sale of transportation fuel.

[27] While asserting the costs for RINs represent a transfer payment as between obligated parties and blenders, EPA has conceded that there is a direct cost impact by virtue of imposing the RFS mandate itself. "If renewable fuels cost more on an energy-equivalent basis than the petroleum fuels they displace, as they did in 2013, there is a cost to using these renewable fuels. The higher the required volume of these fuels, the higher this cost will be. As a result, blending increasing volumes of renewable fuels likely increased the total cost of transportation fuel in the United States in 2013, relative to a scenario where there was no mandate for renewable fuels." A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects, Dallas Burkholder, Office of Transportation and Air Quality, May 14, 2015 at 31. EPA-HQ-OAR-2015-0111-0062.

[28] EPA contends that obligated parties, including small entities, are "generally recovering the cost of acquiring the RINs necessary for compliance with RFS standards through higher sales prices of the petroleum products they sell than would be expected in the absence of the RFS program." *Id.* at 1, citing Burkholder memorandum (EPA-HQ-OAR-2015-0111-0062) and Knittel, Meiselman, Stock Working Paper. To the extent that this is or is not the case with respect to any individual obligated party, the RFS program as a whole imposes costs through mandating displacement of economical fuels with more expensive fuels that, in many cases, also contain less energy on a per-gallon basis.

[29] 82 Fed. Reg. at 34,209.

Biomass-based diesel	≥1.0	2.1	2.1
Advanced biofuel	11.0	4.24	n/a
Total Renewable Fuel	26.0	19.24	n/a

The most sizeable reduction for 2018 compared to RFS statutory applicable volumes - in terms of both absolute volume and percentage requirements - is for cellulosic biofuel, a renewable fuel for which EPA has consistently over-predicted available volumes in *every* year since the program was implemented in 2010. Although AFPM and API support EPA's proposal to make such year-over-year reductions in renewable fuel volumes, we believe that EPA can and should reduce these volumes further. Initially, EPA should further revise cellulosic biofuel volumes downward to correct the Agency's historical pattern of over-predicting the volume of this renewable fuel and should make corresponding downward adjustments to the volumes of other advanced biofuels.

EPA has, for the most part, employed the same methodology it has used before in calculating the total renewable fuel requirements for 2018. In doing so, we believe that EPA has acted in accordance with its available authority under the cellulosic waiver provision and in recognition of the multiple constraints on the volume of total renewable fuel that may be reasonably produced and blended, including constraints on the demand for advanced biofuel and total renewable fuels.[30]

As evidenced by the chart below, EPA has also calculated and considered the level of "conventional biofuel" (*i.e.* corn ethanol) and "non-cellulosic advanced biofuel" as part of its analysis of the proposed RFS standards. While EPA accurately notes that conventional biofuel is not a fuel category for which a percentage standard is explicitly established, EPA asserts that an "implied volume requirement . . . [of 15 billion gallons is] equal to that envisioned by Congress in 2018."[31] Therefore, EPA proposes to use its authority to adjust advanced biofuels in such a way as to avoid requiring non-cellulosic advanced biofuels to "backfill" for unmet cellulosic biofuel requirements.[32] EPA has explained that:

> Since the advanced biofuel volume requirement is nested within the total renewable fuel volume requirement, the statutory implied volume for conventional renewable fuel in the statutory tables can be discerned by subtracting the applicable volume of advanced biofuel from that of total renewable fuel. Performing this calculation with respect to the tables in CAA section 211(o)(2)(B) indicates a Congressional expectation that in the time period 2015–2022, advanced biofuel volumes would grow from 5.5 to 21 billion gallons, while the implied volume for conventional renewable fuel would remain constant at 15 billion gallons.[33]

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[30] "The cellulosic waiver provision grants EPA 'broad discretion' to consider a variety of factors – including constraints on the demand for advanced biofuel – when determining 'whether and in what circumstances' to reduce the advance biofuel volume requirement." *Americans for Clean Energy v. EPA*, No. 16-1005 (D.C. Cir. 2017), *Slip Op.* at 76, citing *Monroe Energy* at 915.

[31] 82 Fed. Reg. at 34,212-3. In discussing this implied volume, however, EPA fails to acknowledge that Congress contemplated 15 billion gallons of ethanol would be blended into approximately 150 billion gallons of gasoline, based on projections of gasoline supply at the time Congress passed the Energy Security Independence Act of 2007. This would result in roughly a 10% blending level. Simply put, Congress did not intend for ethanol to bust the blendwall.

[32] *Id.* at 34,207.

[33] *Id.* at 34,229-30, nt. 80.

AFPM and API believe this is a reasonable and eminently sensible interpretation of CAA §211(o). As the Agency has noted, between 2015 and 2022, the differential between the statutory schedules for total renewable fuel and advanced biofuel is held constant at 15 billion gallons each year. Other provisions of the RFS also support limited reliance on non-advanced and non-cellulosic biofuels. For example, "conventional biofuel" is defined as "renewable fuel that is ethanol derived from corn starch,"[34] and such conventional biofuel is explicitly excluded from the definition of "advanced biofuel."[35] Congress additionally limited the number of facilities that are "grandfathered" with respect to complying with required reductions in lifecycle greenhouse gas emissions. New facilities commencing construction after the date of enactment of the Energy Independence and Security Act of 2007 must achieve at least a 20% reduction in such lifecycle emissions.[36] Both provisions evince Congress's intent to limit the participation of non-advanced biofuels in the RFS program.

III. RIN Carryover

As noted in more detail below, obligated parties began 2017 with a large RIN deficit carryover of 500 million RINs.[37] This deficit effectively increases the 2017 standards from 19.28 billion to 19.78 billion RINs, making it vital that EPA follow through on its intent not to intentionally drawdown the carryover RIN bank.[38] AFPM and API support this goal and the overall approach of the proposed rule regarding banked RINs. Nevertheless EPA should also recognize, as it has in the past, that the statutory structure of the RFS dictates this approach. As EPA correctly determined when it established the RIN system in 2007, RINs are required to be available in the year generated and the following year. Thus, preserving the RIN bank not only represents good public and economic policy – it is required by statute. EPA must correctly interpret CAA §211(o)(5) provisions regarding the generation and use of credits and act in a manner consistent with this statutory provision.

In addition, EPA should recognize that not all obligated parties are in the same position with regard to banked RINs and the ability to acquire the RINs that are needed for compliance each year. The burden of compliance may fall unevenly on obligated parties in any one compliance year. This is another reason why a robust RIN bank is needed; maintaining a fully "liquid" RIN bank helps ensure that obligated parties will have reasonable access to the means (RINs) by which EPA dictates compliance with the RFS.

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[34] CAA §211(o)(1)(F).

[35] CAA §211(o)(1)(B)(i).

[36] CAA §211(o)(2)(A)(i).

[37] Source: EMTS Annual Compliance Data for Obligated Parties and Renewable Fuel Exporters under the Renewable Fuel Standard Program, Table 7 (2016 deficits totaling 502.33 million RINs are comprised of 4.4 million cellulosic RINs, 40.9 million BBD RINs, 66.5 million advanced biofuel RINs, and 390.5 million total renewable fuel RINs).

[38] 82 Fed. Reg. at 34,214.

A. EPA Must Preserve the RIN Bank to Ensure Compliance Flexibility and a Well-Functioning RIN Market

AFPM and API agree with EPA that "a bank of carryover RINs is extremely important in providing obligated parties compliance flexibility in the face of substantial uncertainties in the transportation fuel marketplace, and in providing a liquid and well-functioning RIN market ...."[39] EPA should maintain its longstanding position on the importance of the RIN bank and not take any action in the final rule that would increase RFS volumes on the basis that RINs generated in a prior year that are still available for compliance, *i.e.*, "carryover RINs" that may be available to obligated parties. EPA should continue to exclude all such carryover RINs – the "RIN bank" – from consideration when setting annual RFS standards.

In the proposed rule, EPA adopted the approach it took to the RIN bank in the final 2017 and 2014-2016 RFS rules. Specifically, in the final 2017 rule, EPA observed that "the RFS program functions best 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."[40] EPA also noted that many obligated parties lack the ability to separate RINs through blending and that a significant drawdown in the RIN bank "may stop the market from functioning in an efficient manner, even where the market overall could satisfy the standards."[41] These conditions will not change in 2018, and they support EPA's proposed determination to preserve the full amount of the RIN bank. In addition, the continuing volatility in the RIN market demonstrates that banking RINs is and will remain a prudent compliance strategy.

As noted above, the RFS also contains a statutory requirement that any generated credits (*i.e.*, RINs) be "valid to show compliance for the 12 months as of the date of generation."[42] This provision serves as a statutory bar against constraints on the use of a RIN in the year following its generation. That is, a RIN generated on January 1 or December 31 must be "valid to show compliance" in the subsequent year. And, since compliance with the RFS occurs on a calendar year basis, all RINs generated in year one must necessarily be available for compliance in year two.

If EPA were to require any drawdown of the RIN bank, its action would essentially preclude obligated parties and others from either using or transferring credits that have already been generated (*e.g.*, through a decision not to use the credit in a prior year). To do so would result in the "confiscation" of RINs that are, by statute, required to be treated as valid for compliance in the following year. The statute explicitly provides that an obligated party "shall" be allowed to generate credits and "may use" such credits for purposes of complying with annual RFS

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[39] 82 Fed. Reg. at 34,213.

[40] Renewable Fuel Standard Program: Standards for 2017 and Biomass-Based Diesel Volume for 2018, 81 Fed. Reg. 89,746, 89,755 (Dec. 12, 2016).

[41] *Id.*

[42] CAA 211§(o)(5)(C).

requirements for "12 months as of the date of generation."[43] And EPA has recognized this limit on its authority since the inception of the RIN program.[44]

Using the Agency's historical approach to the RIN bank is also in line with the D.C. Circuit's recent decision in *Americans for Clean Energy*, in which the court upheld EPA's treatment of the RIN bank for compliance years 2014-2016. In this recent decision, the D.C. Circuit agreed with EPA that the supply of renewable fuel EPA must consider in determining whether there is an "inadequate domestic supply" for purposes of EPA's general waiver authority under CAA §211(o)(7) does not include the supply of "carryover RINs" from prior years.[45] The court rejected the biofuel industry's arguments that EPA must consider available carryover RINs to be part of the supply of renewable fuel and that EPA must "ensure" that statutory RFS volumes are met through requiring a drawdown in the amount of RINs available for compliance from prior years. Instead, the court pointed to the requirement in CAA §211(o)(5)(C) that EPA allows obligated parties to carry credits over from one year to the next and recognized that "Congress contemplated that an obligated party would be allowed to carry over credits from one year to the next" for precisely the reasons stated here: to ensure compliance flexibility and a well-functioning RIN market.[46]

Finally, EPA has noted that the RIN bank "balance" is currently approximately 11 percent of the proposed total renewable fuel standards.[47] This level is far below the 20 % "rollover" limit specified in EPA regulations. EPA has previously determined that such a limit is consistent with the structure of the RFS while recognizing that credits *must* be available in the year generated and the year thereafter. Specifically, when the 20 % limitation was included within the 2007 regulations for "RFS1" EPA commented that:

> To be consistent with the Act, we believe that the rollover issue should be addressed in our regulations. However, *we also believe that the limits to preclude such unhindered rollovers should not preclude* ***all previous-year RINs from being used for current-year compliance.*** To accomplish this, we must restrict the number of previous year RINs that can be used for current year compliance. To this end, we proposed a 20 percent cap on the amount of an obligated party's Renewable Volume Obligation (RVO) that can be met using previous-year RINs.
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> * * *
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> As described in the NPRM, we believe that the 20 % cap provides the appropriate balance between, on the one hand, allowing legitimate RIN carryovers and protecting against potential supply shortfalls that could limit the availability of RINs, and on the other hand ensuring an annual demand for

[43] CAA 211§(o)(5)(A)-(B).

[44] "RINs are valid for compliance purposes for the calendar year in which they are generated, or the following calendar year. This approach to RIN life is consistent with the Act's prescription that credits be valid for compliance purposes for 12 months as of the date of generation, where credits are generated at the end of a year when compliance is determined." Regulation of Fuels and Fuel Additives: Renewable Fuel Program; Final Rule, 83 Fed. Reg. 23,900, 23,909 (May 1, 2007).

[45] *Slip Op.* at 39-40.

[46] *Id.* at 38.

[47] 82 Fed. Reg. at 34,213.

> renewable fuels as envisioned by the Act. We believe this approach also provides the certainty all parties desire in implementing the program. The same cap will apply equally to all obligated parties, and the cap will be the same for all years, providing certainty on exactly how obligated parties must comply with their RVO going out into the future.[48]

EPA's approach to preserving the 2017 RIN bank is consistent with the purpose of the credit program and EPA's historic implementation of the program.[49]

B. The Number of Carryover RINs May be Insufficient to Ensure Liquidity in the RIN Market

As noted above, obligated parties began 2017 with a large RIN deficit – a shortfall of 500 million RINs. This deficit effectively increases the 2017 standards from 19.28 billion to 19.78 billion and may result in a significant drawdown of carryover RINs to achieve compliance.

Several factors that led to the buildup of the RIN bank in prior years simply no longer apply. For example, in 2016, an increase in biodiesel production in anticipation of the blender tax credit expiration resulted in a surge in biofuel production and the generation of 200 million BBD RINs. That surge in renewable fuel production will likely not be repeated this year now that the tax credit has expired, reducing expected RIN generation by 200 million compared to last year. Similarly, imports of palm oil biodiesel from Indonesia are uneconomical without the tax credit.[50] This likely translates to a loss of an additional 200 million RINs (D6). These two factors alone create a 400 million RIN deficit compared to last year. There also is a concern that without the tax credit, many small U.S. biodiesel production facilities will close, putting further pressure on RIN supply.

Unlike the early years of the RFS when required levels were below the E10 blendwall, available opportunities to "build" the RIN bank going forward are now constrained by the E10 blendwall and other blending constraints.

Another circumstance likely to reduce the availability of RINs stems from the National Biodiesel Board's legal challenge to the importation of biodiesel. On August 23, 2017, the Department of Commerce issued a preliminary determination in the countervailing duty investigations. The Department found that Argentina and Indonesia provided subsidies to their biodiesel producers

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[48] 72 Fed. Reg. 23,000, 23,934-5 (May 1, 2007) (emphasis added).

[49] We would note further that EPA has not proposed any rationale or justification for changing its approach in the proposed rule and would need to do so in order to change its interpretation of the statute. EPA would need to adequately explain why it had decided to "change course" with regard to its previous waiver decisions. *See Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Ins. Co.*, 463 U.S. 29, 42 (1983). Moreover, as the D.C. Circuit has recognized, "an agency issuing a legislative rule is itself bound by the rule until that rule is amended or revoked" and "may not alter [such a rule] without notice and comment." A final rule cannot depart from past practice because such a result would not constitute a "logical outgrowth" of the proposed rule. As the D.C. Circuit has recognized, "an agency issuing a legislative rule is itself bound by the rule until that rule is amended or revoked" and "may not alter [such a rule] without notice and comment." *Nat'l Family Planning & Reprod. Health Ass'n, Inc. v. Sullivan*, 979 F.2d 227, 234 (D.C. Cir. 1992).

[50] According to EPA EMTS data, D6 imports in 2017 constitute ~0.1% of total D6 RINs generated in 2017 versus ~3% in previous years.

for biodiesel imported into the U.S.[51] If the International Trade Commission ("ITC") rules in favor of the National Biodiesel Board Fair Trade Coalition and a tariff is imposed on imported Argentinian and Indonesian biodiesel, these imports would be reduced, which could reduce the quantity of D4 RINs available for compliance by an additional 666 million.[52] Combined with the factors above, these conditions represent a 1.066 billion cumulative RIN generation deficit versus last year.[53]

There also is an expected shortfall in cellulosic RINs. Cellulosic biofuel production through the first half of 2017 was only 95 million gallons. If that production level continues for the balance of the year, cellulosic production will fall short of the 311 million-gallon standard by a substantial margin.

In addition, the continuing problem with invalid RINs will put further pressure on RIN supply and prices. In January, EPA said that it intends to revoke Genscape's authority to verify RINs as a third-party auditor and ordered the company to replace 68 million RINs generated by Gen-X and SRC that were verified by Genscape. Genscape must now enter the market to acquire these RINs, reducing the supply available to obligated parties for compliance. Future enforcement actions could also reduce the number of available banked RINs.

Finally, the percentage of the obligation met using prior year RINs has declined. In 2015, ten % of the obligation was met using prior year RINs. In 2016, obligated parties met the 2016 RVO using 91 % 2016 vintage RINs and nine % prior year RINs from the RIN bank. It is reasonable to expect that all prior year RINs available for use are used because they cannot be used for compliance after that year and become worthless. The declining use of carryover RINs therefore suggests that the balance in the RIN bank for 2018 will not be sufficient to offset the supply reductions discussed above and preserve market liquidity.

C. EPA Should Ensure the 2017 RIN Bank Will be Sufficient to Allow Obligated Parties to Comply with their 2018 RFS Obligations, as Contemplated by the Statute

EPA has *estimated* that the 2016 RIN bank (*i.e.,* the number of carryover RINs available to demonstrate compliance with 2017 RFS standards on March 31, 2018[54]) will comprise 2.06 billion RINs.[55] This is 520 million more RINs than EPA *projected* would be available when the 2017 RFS was finalized in December 2016, but is still only about 11% of the proposed 2018 standards. EPA notes, however, that there is "considerable uncertainty" regarding the number of

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[51] See https://www.commerce.gov/news/press-releases/2017/08/us-department-commerce-issues-affirmative-preliminary-countervailing-1. *See also* http://ia.ita.doc.gov/download/factsheets/factsheet-multiple-biodiesel-ad-cvd-initiation-041317.pdf

[52] EIA: 444 million gallons of biodiesel from Argentina in 2016 (444 x 1.5 equivalence value = 666); https://www.eia.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbbl_m.htm.

[53] *See* https://in.finance.yahoo.com/news/u-finds-argentine-indonesian-biodiesel-200226922.html (Argentine biodiesel association Carbio stated "The compensatory duties imposed result in an immediate stoppage of sales to the United States . . . .").

[54] 82 Fed. Reg. at 34,213; *See also* 40 C.F.R. §80.1451.

[55] Carryover RIN Bank Calculations for 2018 NPRM, Nick Parsons, July 5, 2017 at 3 (hereinafter referenced as "Carryover memo").

carryover RINs that will be available for compliance with the proposed 2018 RFS.[56] Thus, it is very difficult to predict at this point how many valid carryover RINs will be in the RIN bank to help obligated parties demonstrate their compliance with the 2018 RFS, and the Agency should take no action that could increase that uncertainty by seeking to draw down or limit the size of the RIN bank.

EPA has not proposed any intentional drawdown of the RIN bank for 2018, and AFPM and API fully agree with this course. The fact that there may have been an increase in the size of the RIN bank from 2016 to 2017 should not alter this determination. In this regard, there is no statutory limit on the number of RINs that may be banked. And the number of 2017 RINs that EPA projects may be available for compliance with the 2018 RFS is far from the highest number of carryover RINs EPA has allowed to be banked in the past. For example, EPA has calculated that the net carryover 2012 RIN bank comprised 2.47 billion RINs.[57] This is about 400 million more banked RINs than EPA projects will be available for compliance with the 2018 RFS when overall requirements (a proposed volume of 19.24 billion gallons) far exceed the requirements imposed in 2013 (16.55 billion gallons).

In sum, based on the statutory requirements of the RFS program, past practice in implementing the RFS program, and the policy goals (*e.g.*, RIN market liquidity) EPA has expressed regarding maintenance of the RIN bank, EPA must not take any actions that would decrease the amount of RINs that are available for carryover in 2018 for 2019 compliance.

IV. EPA Must Limit the Average Rate of Ethanol Blending for 2018 to 9.7 Percent

EPA should employ its general wavier authority to further reduce the total renewable fuel volume to account for the significant costs being imposed on obligated parties due to the practical limits on blending ethanol into gasoline. Ethanol remains "the most widely produced and consumed biofuel, both domestically and globally."[58] Thus, consideration of projected ethanol use remains central to the analysis of reasonably achievable RFS volumes. In the proposed rule and previous rulemakings, EPA has accurately observed that: (1) the rate of growth of ethanol use has declined as the gasoline market has become saturated with E10, and (2) substantial barriers remain to the use of E15, including legal constraints.

As indicated by the analysis below, however, while EPA has recognized some previous errors in estimating ethanol use in the proposed rule – most notably EPA's prior significant underestimations of the use of E0 – the Agency must further refine its assessment of projected total ethanol use for 2018. AFPM and API believe that a correct analysis of historic ethanol use and current market conditions should lead EPA to conclude that a reasonable estimate of the attainable average rate of ethanol blending into gasoline for 2018 is 9.7%. Total renewable fuel volumes for 2018 should accordingly be reduced consistent with this percentage. Our detailed analysis follows.

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[56] 82 Fed. Reg. at 34,213.
[57] *Id.* at A-3.
[58] 82 Fed. Reg. at 34,229.

A. Total Renewable Fuel

In the proposed rule, EPA determined that a volume of 19.24 billion gallons for total renewable fuel was "reasonably attainable given assessments of individual fuel types, including biodiesel, renewable diesel, ethanol (in the form of E10 or higher ethanol blends such as E15 or E85), and other renewable fuels."[59] EPA thus reduced both the total renewable fuel volume (as well as the advanced biofuel volume for 2018) by 6.762 billion gallons based on the Agency's decision to waive cellulosic biofuel requirements by that amount under the authority of CAA §211(o)(7)(D).

In this regard, for the purposes of determining whether 19.24 billion gallons of renewable fuel is attainable in 2018, EPA uses an ethanol percentage concentration of 10.13%, the same level of concentration as used in the final 2017 standards.[60] But EPA should also take into account two additional factors. First, the projection of total gasoline energy use in 2018 has *decreased* from the amount projected in 2017. Total quad Btu of gasoline energy is projected to decrease by 90 quad Btu from 2017 to 2018 (17,288 quad Btu to 17,198 quad Btu), meaning that the volume of ethanol that will be used in E10 and E15 will be directionally lower. Second, EPA's projection of an ethanol concentration level of 10.13% conflicts with other estimates. For example, EIA's actual estimates of ethanol concentration in 2016 were lower, specifically 9.81%.[61] In general, EIA's analysis of ethanol concentrations in gasoline has shown a leveling off of the average ethanol concentration in gasoline since 2011 after initial "ramping up" from 2005 to 2010.

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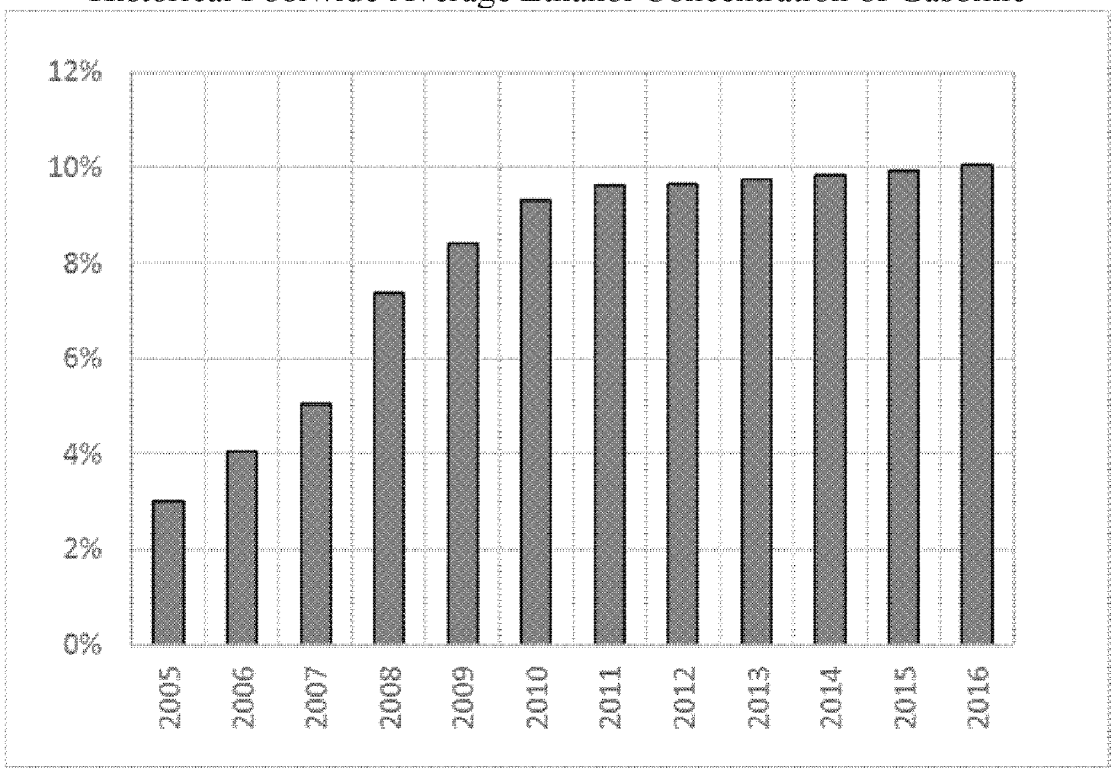
[59] *Id.* at 34,210.

[60] *Id.* at 34,232.

[61] Refinery & Blender Net Input of fuel:
ethanol: https://www.eia.gov/dnav/pet/pet_pnp_inpt_a_epooxe_yir_mbbl_a.htm; Product Supplied of Finished motor: gasoline: https://www.eia.gov/dnav/pet/pet_cons_psup_a_EPM0F_VPP_mbbl_a.htm.

Historical Poolwide Average Ethanol Concentration of Gasoline



Source: EIA's Short-Term Energy Outlook

EPA should therefore *not* assume that the average ethanol concentration for 2018 will be 10.13% as it did for the 2017 RFS[62] nor that this will result in consumption of 14.479 billion gallons of ethanol in 2018. In short, projecting this level of ethanol use in 2018 is supported neither by the overall trend in gasoline consumption, nor by any ability of the current marketplace to absorb additional amounts of E15.

EPA's assumption that ethanol concentration will reach 10.13% in 2018 is not based in fact, but rather an estimate used to illustrate a hypothetical example of how the 2017 RFS could be achieved. EPA's assumption is flawed, at least partly, because it is based on fuel ethanol or denatured ethanol. The quantity of the denaturant, a hydrocarbon additive, should not be counted as ethanol volume when calculating the average ethanol content of the gasoline pool.

More broadly, EPA should not assume that the market can simply absorb an ethanol concentration of 10.13% in 2018. History shows that E15 and E85 have not displaced the primary gasoline/ethanol blend, E10, nor as pointed out in Section IV.A. *infra*, driven E0 use down to the previously assumed level of 200 million gallons. Specifically, as referenced below, there is little growth in E15 or E85 utilization that could support the total renewable fuel volume

[62] 82 Fed. Reg. at 34,232. EPA's analysis in the docket contends that there is a steadily increasing trend in average ethanol concentration since 2010 that means that 10.13% is reasonably attainable in 2017 based on a gradual increase in the average percentage of ethanol in those years. *See* Ethanol Supply scenarios for 2018, David Korotney, July 5, 2017. EPA assumes that the pool wide concentration in 2018 will be the same as 2017 and that this level will result in 14.479 million gallons of ethanol in 2018. *See* 82 Fed. Reg. at 34,232.

EPA has proposed. EPA also continues to underestimate the consumer demand for E0 and its utilization for many types of vehicles and nonroad equipment. High E0 usage has a continuing depressive effect on the demand for renewable fuels. In addition, as described in more detail below, there are real-world limitations to the utilization of advanced biofuels, including BBD.

While we disagree on the amount of ethanol that EPA estimates can be utilized in 2018, EPA's approach to setting the total renewable fuel level for 2018 – in which it utilized its cellulosic waiver authority fully – is completely in accord with the statutory text. The statute plainly provides that, whenever EPA makes a reduction in the applicable volume for cellulosic biofuel, it "may *also* reduce the applicable volume of renewable fuel and advanced biofuels requirement … by the same or lesser volume."[63] EPA's proposed approach is also supported by the D.C. Circuit's recent decision in *Americans for Clean Energy* and its decision in *Monroe.*

EPA also has the authority to utilize the statute's general waiver provision in two circumstances relevant here, *i.e.*, "based on a determination . . . that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States . . . [or based on a determination] that there is an inadequate domestic supply."[64] The prospect for such severe economic harm exists should EPA not reduce the renewable fuel volumes for 2018 and therefore EPA should exercise its general waiver authority to avoid severe economic harm *concurrently* with its exercise of its cellulosic waiver authority. In addition, to the extent that EPA considers the supply of renewable fuel in exercising its authority under the second prong of the general waiver provision, EPA may focus on the *domestic* supply of such fuel in determining whether the supply is inadequate. EPA's potential use of these waiver authorities to lower the mandated volumes are addressed in Section VI, *infra.*

B. E0 Remains in High Demand, Limiting the Ability to Introduce More Ethanol into Commerce

AFPM and API have commented extensively on the issue of real world production and use of E0 in the past.[65] Demand for E0 has been and remains far above EPA's projections. We believe, for instance, that actual E0 demand represented almost 4% of gasoline demand in 2015.[66] And, although E0 consumption declined from 2015 to 2016, substantial use of E0 continues today in the United States. In our previously submitted comments, we referenced projections from the EIA with regard to consumer demand for E0 that are far above EPA's estimates. (EIA estimated 5.3 billion gallons of E0 in 2015 versus EPA's previous estimate of 200 million gallons). We continue to believe that EIA is in the best position to provide accurate projections of E0 demand and recommend that EPA work with EIA to assess its projected use in 2018.

EPA estimates E0 demand based on total ethanol consumption, estimates of E15 and E85 sales, and the ratio of E0 and E10 sales needed to balance the total ethanol consumption. Under this methodology, EPA pegged total E0 demand in 2017 at 200 million gallons. But using EIA's

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[63] CAA §211(o)(7)(D)(i) (emphasis added).
[64] CAA §211(o)7)(A)(i)-(ii).
[65] *See* Appenidix1 at 17-20.
[66] *See* AFPM 2017 RFS Comments at 17 and API 2017 RFS Comments at page 5 (Significant E0 Demand).

methodology for consumption indicates that E0 consumption in 2016 was about 2.0 billion gallons.[67]

AFPM and API have also previously cited the 2015 Iowa Department of Revenue's retailers' report that shows non-ethanol fuel (E0) sales account for more than 200 million gallons in annual sales in Iowa alone.[68] But the data are also revealing as to the persistence of the demand for E0 when the number of stations offering E0 and other ethanol-blended fuels is considered. For example, the Iowa Report demonstrates that the number of stations selling E0 decreased by 3%, however, the volume of E0 sold during this period only decreased by 0.9%. In contrast, over the same period, the number of E85/E20 stations in Iowa increased by 14%, but the sale of E85/E20 only increased by 5%. In addition, while the number of stations selling E15 increased by 74%, the sale of E15 actually *decreased* by 3.2%. These statistics clearly demonstrate that EPA cannot rely upon the number of stations as a proxy for the amount and types of blended fuels sold. This methodology is arbitrary and capricious in that it does not accurately predict the amount of biofuels actually sold.

Overall, within Iowa, the total volume of E0 sold was an order of magnitude greater than the combined sale of E15, E20, *and* E85. The data show that there is a very strong consumer preference for E0 even when outlets selling higher ethanol blends increase. These data support the need for EPA to reassess its estimate of the current demand for E0 in the nation.

2015 Iowa Fuel Sales[69]

Fuel	**Locations**		**Sales as percent of total gasoline and ethanol/gasoline sales**		**Volume (Million gallons)**	
	2015	**2016**	**2015**	**2016**	**2015**	**2016**
E0	1797	1745	14%	13.75%	220.4	218.5
E85 and E20*	304	346	1%	1%	15.7	16.5
E15**	92	160	0.4%	0.38%	6.2	6.0
Total ethanol share of fuel sales	2102	2020	9.2%	9.2%	143.8	146.8
Total sales gasoline and ethanol			100%	100%	1,561.7	1,588.0

* E85 = For Year 2015, 13.2 million gal. and E20 = 2.5 million gal,
For Year 2016, 13.5 million gal. and E20 = 3.0 million gal
** E15 is defined by the State as E15 and E15 flex (E15 is sold in summer as Ethanol Flex Fuel)

Despite the submission of EIA and other data, in the past EPA has not increased its estimates of E0 sales. In the 2017 RFS, for example, EPA took the position that EIA data was based on

[67] As noted in more detail, *infra* nt. 84, AFPM and API believe that a conservative estimate of E0 use is approximately 3%.

[68] See API 2017 RFS comments at page 13.

[69] Iowa Department of Revenue, "2016 Retailers Fuel Gallons Annual Report, April 2017" and "2015 Retailers Fuel Gallons Annual Report," at page 5.

information from domestic distribution at the terminal level and therefore did not account for downstream blending to create E10.[70] EPA asserted that its own EMTS data was superior to the EIA data and that this data provided more accurate information on actual use of ethanol in motor fuel. But even as EPA made these assertions and maintained its estimate of 200 million gallons of E0 use in 2017, the Agency conceded that E0 consumption using EMTS data suggested E0 consumption of *700 million gallons* in 2015.[71] EPA then justified the use of 200 million gallons of projected E0 use in 2017 on the basis that increasing RFS requirements would force the gasoline market to transition away from the use of E0, which EPA now acknowledges was incorrect.

> It should be readily apparent that the gasoline market has not "transitioned" away from E0 in the manner presumed by EPA. Instead, E0 use is driven by consumer demand for multiple end uses. In this regard, EPA has other information available to it justifying a much *higher* projection of E0 utilization than the 500 million gallons assumed in the proposed rule. For example, EPA received comments in response to EPA's solicitation of comment for the Renewables Enhancement and Growth Support Rule from Magellan Midstream Partners, L.P. These informed comments addressed real world, everyday use of E0 indicating that E0 volume from Magellan's central system alone is more than three times higher than EPA's national estimate. Based on the data . . . and other market factors, we believe significant demand for E0 reaches beyond marine applications and extends into the automotive market.[72]

Extensive information has previously been submitted on this issue from API, AFPM, and various other stakeholders,[73] and EPA is required to consider these and other new comments submitted in response to this proposed rule to further consider the level of E0 use in lowering the final 2018 RFS more than proposed.

C. E15 Cannot be Widely Used and Thus Does Not Provide a Solution

EPA continues to acknowledge real world constraints associated with the E10 blendwall, a position that is consistent with the Agency's assessment in the 2014-2016 RFS, as well as the 2017 RFS rulemaking.[74] As EPA notes, both the limited number of retail stations that offer E15 as well as the limited number of vehicles that are able to use E15 act as constraints on additional volumes of this fuel. In addition, the complexity of the fuels marketplace means that setting RFS standards, in and of itself, will not result in additional use of E15. We agree with EPA that many of the same constraints that were reviewed in the 2014-2016 RFS and the 2017 RFS "will operate to limit growth in the availability of renewable fuel in 2018 as well, both for ethanol and non-ethanol renewable fuels."[75]

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[70] *See* 81 Fed. Reg. at 89,776.

[71] *Id.*

[72] Comment from Magellan Midstream Partners, L.P. filed with respect to Renewables Enhancement and Growth Support Rule, Docket ID No. EPA-HQ-OAR-2016-0041.

[73] See, e.g., comments of National Marine Manufacturers Association, EPA-HQ-OAR-2016-0004-1949.

[74] 82 Fed. Reg. at 34,231.

[75] *Id.*, referencing 80 Fed. Reg. 77,450 (Dec. 14, 2015) and 81 Fed. Reg. 89,774.

We have commented extensively on the fact that E15 is not a viable solution to the E10 blendwall because E15 is incompatible with most of the existing vehicle fleet and the existing refueling infrastructure, and due to the potential liability issues associated with marketing the fuel.[76] In fact, automobile manufacturers do not recommend the use of E15 in approximately 85% of the vehicles on the road today, and the potential liability associated with misfueling or damage to such vehicles remains a concern. Further, with regard to the existing retail infrastructure, the Petroleum Marketers Association of America ("PMAA") testified,

> To rely on UST system manufacturers to recertify every component of an existing storage system is almost impossible to achieve as they do not want the liability after the fact.[77]

Nearly seven years after EPA granted two partial waivers allowing for the use of E15 in certain light duty vehicles,[78] it is clear that E15 use has been minimal and that EPA lacks actual data on nationwide E15 use. Instead, EPA attempts to derive an estimate of nationwide E15 sales by relying on the number of retail outlets selling the fuel incorporating further estimates regarding the amount of total sales that are E15.

D. EPA Overestimates the Amount of E85 the Market Can Absorb

EPA estimates of E85 consumption are also far removed from the realities of the fuel market, being based on the relationship between the price of E10 and E85 and a statistical correlation. EPA's continued reliance on flawed methodology, particularly when other data and analysis have been submitted to the administrative record of this rule and other RFS rules over the last several years showing how far EPA's estimates remain from real-world facts, is the epitome of arbitrary and capricious agency action. That the result of its flawed methodology is billions of dollars in additional costs to obligated parties only makes matters worse. EPA has a duty to obtain and base its volumetric requirements on more accurate information.

EPA admits in the proposal that it does not have comprehensive data on the amount of E85 sold in the United States.[79] Instead, the Agency seeks to either scale data that is available from several states to estimate national usage or correlate data on the "annual average E85 price discount" with E85 sales, taking into account the number of retail outlets selling E85. Using the latter methodology, EPA estimates that 192 million gallons of E85 will be used in 2018.[80] EPA further indicates that it may receive information regarding the first methodology later this year and take such into account in the final rule.

As discussed in AFPM's and API's extensive comments (in the appendices to these comments) on EPA's approach to determining E85 usage in the proposed 2017 RFS rulemaking, EPA's methodology suffers from several flaws. In summary:

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[76] API 2017 RFS Comments at page 17. API/AFPM Comments on 2014-2016 RFS Rule at 28-34.

[77] August 1, 2017, "PMAA Testimony before the EPA Public Hearing on the RFS Standards for 2018 and Biomass-Based Diesel Volume for 2019" Hyatt Regency Washington on Capitol Hill, PMAA Executive Committee Member Vern Kelley.

[78] 75 Fed. Reg. 68,094 (Nov. 4, 2010); 76 Fed. Reg. 4,662 (Jan. 26, 2011).

[79] Preliminary estimate of E85 consumption in 2016, David Korotney, July 5, 2017.

[80] *Id.* at 3.

- The stochastic analysis of E85 data from a limited number of states is flawed and produces large uncertainties. Therefore, EPA should not try to scale data that is available from such states to estimate national usage in finalizing the 2018 rule.[81]

- EPA has repeatedly overestimated E85 levels in the past compared with relevant EIA data. For instance, in 2015, EIA estimated that only 86 million gallons of E85 were actually sold, which was approximately *half* of EPA's estimated 166 million gallons.

- Infrastructure necessary to facilitate E85 consumption has undergone only modest change. In 2016, EPA estimated that between 3,024 and 3,127 E85 stations operated, according to data from the Alternative Fuels Data Center. As noted in previous comments, this represents only about two % of all gasoline stations. EPA estimates on the number of such stations are higher than those of the Department of Energy.[82]

- The percentage of flexible fuel vehicles ("FFV") in the U.S. light duty car and truck fleet has not appreciably changed. It has risen, but only from about seven % to about eight % of vehicles. At the same time, regulatory requirements that have incentivized FFV production are phasing out.[83]

- EPA cannot reasonably rely on unclear consumer response to and acceptance of E85 based on price differential. As we indicated in our 2017 RFS comments, response to lower E85 pricing has varied.[84]

- EPA has also recognized that current marketing of E85 does not support greater use of this fuel. Specifically, due to the withholding of RIN value, consumers do not receive a "pass through" of the RIN value, resulting in little incentive to use the fuel.[85]

The latter point is further supported by the Fuels Institute study that analyzed the retail sale of E85 and found that factors other than price affect E85 sales.

> Ultimately, consumers are influenced by numerous factors when deciding to purchase E85. Finding the right conditions to attract the 20 million FFV drivers on the road to opt for E85 instead of unleaded requires careful study of prevailing

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[81] EPA indicates that it may utilize additional information on 2016 E85 sales when it becomes available in the final rule. Korotney estimate of E85 consumption; *Id.* at 1. AFPM and API are concerned that extrapolating national sales based on this limited subset of states, which may have the majority of E85 sales, is not realistic.

[82] *See* https://www.afdc.energy.gov/fuels/ethanol_locations.html.

[83] As EPA recognized in its 2012 light duty vehicle standards, pursuant to 49 U.S.C.§ 32905(b), fuel economy calculations that favor FFVs are subject to a phase-out and are not available after model year 2019. *See* 77 Fed. Reg. 63,020 (Oct. 15, 2012).

[84] AFPM 2017 comments at 28.

[85] "[W]e believe that the generally poor pricing of E85 at retail is not due to the poor pricing of E85 at the wholesale level, but is instead the result of the noncompetitive retail market for E85. This non-competitive market often results in an E85 pricing strategy by retail stations that seeks to maximize fuel margins through withholding RIN value leading to greater profitability, rather than a strategy that seeks to maximize sales volumes through lower retail prices by passing a greater portion of the RIN value through to consumers."
See https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100PUF0.pdf) at 30.

> market conditions, consumer behavior and localized strategies to maximize the return on investment for the fuel. Relying upon price experience alone will not necessarily yield predictable results.
>
> The data presented in this report indicates that retail facility analysis is necessary to fully understand why consumers choose to purchase or not purchase E85, and dispels the assumption that price alone will determine the success of an E85 retail fuel offer. [86]

Additionally, according to a study by MathPro, "E15 and E85 have achieved only limited market acceptance, due in part to vehicle warranty issues with E15 and infrastructure limitations for both E15 and E85. In addition, when higher blends of ethanol are sold alongside E10, ethanol's fuel economy deficit becomes apparent to consumers."[87]

In summary, although EPA's current proposal estimates that lesser amounts of E85 will be reasonably consumed in 2018 (194 million gallons) than in 2017 (275 million gallons),[88] the Agency continues to overestimate E85 demand.

E. Conclusion Concerning Ethanol Use and Total Renewable Fuel Volumes

EPA's methodology suffers from a number of flaws, including underestimating E0 use, overestimating the use of E15 and E85, and failing to adequately account for the flattening of gasoline demand. Consequently, EPA should not presume that ethanol will be blended into gasoline at an average rate of 10.13% for 2018. Instead, as AFPM and API previously noted, a conservative estimate of the percentage of E0 in the gasoline pool is 3%, meaning only 97% of gasoline may be blended with ethanol.[89] Because the overwhelming majority of gasoline that contains ethanol is E10, EPA may reasonably use 9.7% as the projected average annual ethanol blending in 2018. Under the July 2017 EIA Short-term Energy Outlook forecast, which projected the use of 143.95 billion gallons of gasoline in 2018, a 9.7% ethanol level would translate into a "requirement" for 13.96 billion gallons of ethanol.[90] EPA should promulgate final RFS standards on the basis of this ethanol volume, utilizing its general waiver authority to prevent "severe economic harm," discussed in Section VI, *supra*.

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[86] "Retailing E85: An Analysis of Market Performance, July 2014-August 2015," Fuels Institute, p. 37

[87] "RENEWABLE FUEL STANDARDS AND THE ETHANOL BLENDWALL," Prepared for API by MathPro Inc., August 29, 2013.

[88] 81 Fed. Reg. at 89,780.

[89] AFPM and API have previously calculated that E0 was approximately 4% of gasoline in 2015; EIA has calculated the E0 percentage as 1.4% in 2016. Averaging these two data points would yield 2.7%. But sales data from one state, Iowa, indicated an E0 level of approximately 14% in 2015 and 2016. Therefore, we believe that a conservative estimate would be a national average of approximately 3%.

[90] AFPM and API recognize that the RFS does not specifically mandate the use of ethanol in gasoline. But the Agency has also recognized that the total renewable fuel requirement "drives" the use of ethanol in gasoline subject to real world constraints on using E10 in vehicles built before 2001 and other significant nonroad uses.

V. EPA Should Recalculate the Cellulosic and Advanced Biofuel Volumes for 2018 By More Closely Aligning Projected Cellulosic Biofuel Volumes with Actual Production, and Should Fully Exercise Its Cellulosic Waiver Authority

AFPM and API support EPA's proposal to lower the advanced biofuel volume by the full amount of the reduction in cellulosic biofuel volumes following EPA's projection of 2018 volumes of cellulosic biofuel. AFPM and API further support EPA's proposal to adopt more conservative percentile values in projecting 2018 cellulosic biofuel production. Nonetheless, in light of recent actual production data, we believe that EPA's projected 2018 volume for cellulosic biofuel remains too high.

A. EPA's New Methodology to Estimate Cellulosic Biofuel Production

Under CAA §211(o)(7)(D)(i), EPA must project the "volume [of cellulosic biofuel] available during [each] calendar year." Over the years since the cellulosic biofuel requirement first became applicable in 2012, EPA has used various methodologies to implement it. In the proposed rule, EPA has once again revised its methodology for projecting the production of cellulosic biofuel in 2018.

In projecting cellulosic biofuel volumes, EPA must "take a neutral aim at accuracy" and "reflec[t] on the success of earlier applications."[91] But EPA's previous cellulosic biofuel methodologies have invariably overestimated cellulosic biofuel production. For the most recent completed compliance year, EPA projected a total volume of 230 million gallons of cellulosic biofuel would be available in 2016.[92] Of this amount, EPA projected that 23 million gallons would be in the form of liquid cellulosic biofuel while 207 million gallons would be produced from compressed natural gas/liquified natural gas ("CNG/LNG") facilities. API and AFPM support EPA's decision to evaluate liquid cellulosic and CNG/LNG biogas production separately given fundamental differences between the two markets and fuel types.[93] The total amount of liquid cellulosic biofuel produced in 2016, however, was only 3.8 million gallons.

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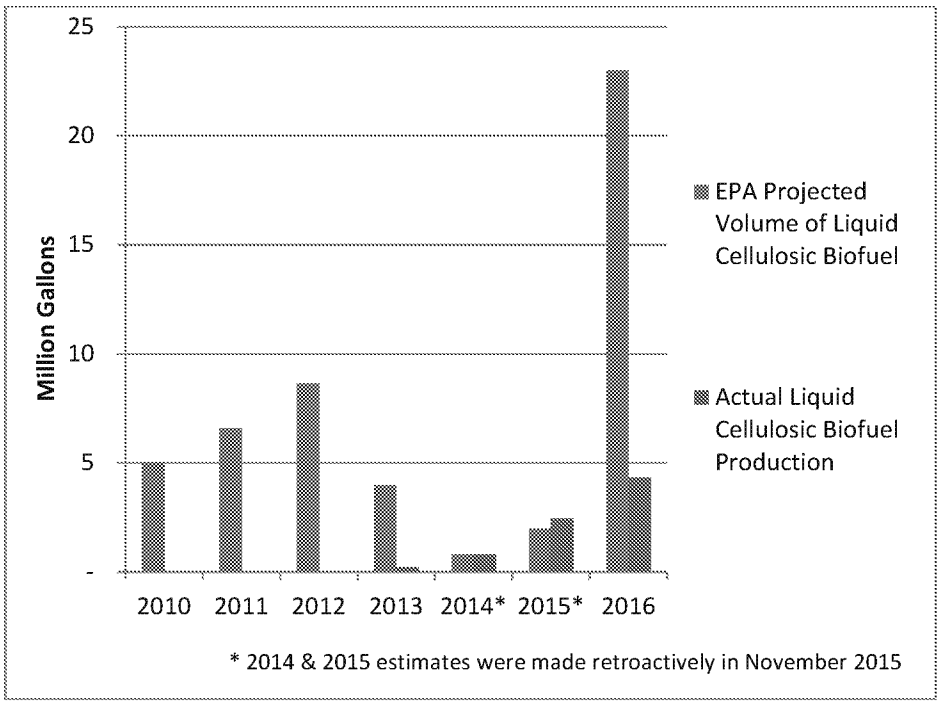
[91] *API v. EPA*, 706 F.3d 474, 476-77 (D.C. Cir. 2013).
[92] 80 Fed. Reg. at 77,508.
[93] *See* 80 Fed. Reg. at 77,499-77,509.



While the production of CNG/LNG cellulosic biofuel in 2016 was much closer to the EPA estimate (188.12 million gallons), EPA *still* overestimated production in this segment of the industry, which it considers to be largely mature.

For 2018, EPA proposes a cellulosic biofuel volume requirement of 238 million gallons, of which 221 million gallons is attributed to CNG/LNG biofuel producers. This represents a significant reduction from the 2017 volume requirement. In projecting 2018 production of *liquid* cellulosic biofuel, EPA has used a methodology similar to that which it has in the past - namely, assembling information concerning the production status of cellulosic biofuel facilities. This time, however, EPA has further adjusted production estimates downward based on actual liquid cellulosic biofuel production in 2016.[94] EPA is proposing to use a 1st percentile value for new facilities (versus a 25th percentile value used for such facilities in 2016) and a 43rd percentile value for "consistent producers" (versus a 50th percentile value for such producers in 2016). While these percentile values are lower than those used previously, historically *actual* production of liquid biofuel has never reached more than 2.1% of total industry capacity.[95]

AFPM and API believe the lower percentile values proposed by EPA are a step in the right direction considering both the very large error rate EPA experienced in 2016 for liquid cellulosic biofuel projections, as well as EPA's historic overestimation of production from both new and existing or "consistent" producers. EPA should consider, however, whether further downward adjustment is appropriate given that EPA's 2018 projection of liquid cellulosic biofuel

[94] 82 Fed. Reg. at 34,215.

[95] 2.1% is based on EPA projections and capacity data used in previous rulemakings. *See* 75 Fed. Reg. 76,797; 77 Fed. Reg. at 1,330-31; 78 Fed. Reg. at 49,797, 49,808-09; 78 Fed. Reg. 71,779-80, 71,736. Where EPA included a facility in its projection table for a given year, but determined that production would not begin that year, the facility was excluded from the analysis for purpose of calculating utilization percentage.

production (17 million gallons) represents approximately a *450% increase* in production over the most recent full year (2016) for which production data exists. Available production data from 2017 further reinforces this point. Approximately five million liquid cellulosic (D3 and D7) RINs have been produced between January 2017 and July 2017 - a production rate that implies an annual 2017 total of 8.7 million RINs if the same rate of production occurs for the rest of the year.[96] Even that level of production will likely be reduced to account for RIN generation errors, spills and other adjustments, resulting in a final net RIN total equal to less than *half* of EPA's forecasted 17 million RIN forecast for 2018. EPA has not shown that the market conditions exist for such dramatic year-over-year increases in liquid cellulosic biofuel production.

AFPM and API urge EPA to abandon its prior methodologies that have historically overpredicted cellulosic biofuels. While EPA continues to tweak these methodologies, all suffer from the same fatal flaw - reliance upon the predictions of the very cellulosic producers that face financial pressure from their investors to provide optimistic production projections. For these reasons, AFPM and API continue to urge EPA to adopt a methodology that is based upon recent *actual* cellulosic production rather than the necessarily biased predictions provided by the cellulosic producers.

Specifically, EPA could annualize actual RIN generation data that will be available for August, September, and October 2017 to derive cellulosic biofuel volumes for both liquid cellulosic and CNG/LNG for 2018. This methodology has the benefit of being based on the most up-to-date data on actual proven production, which is a better indicator of future performance than the methods that EPA has used in the past to project production in accordance with statutory requirements.

EPA could also ensure that its projections of cellulosic liquid fuel production are realistic by calculating what percentage of industry-wide capacity is being projected by the methodology it employs to calculate projected production. If the forecasted utilization rate resulting from EPA's methodology materially exceeds the highest achieved historical levels of capacity utilization – *e.g.*, currently 2.1% – EPA could then make further downward adjustment in the final volume requirement based on the level that represents the highest historical percentage of capacity used for liquid cellulosic biofuel production. Such a procedure could serve as an additional check on overly optimistic predictions and as a further means of taking neutral aim at accuracy.

Using actual historic production as the methodology to project future production does not inhibit the growth of the cellulosic biofuel volumes. To the extent that actual production of cellulosic biofuel increases from year-to-year, a new "baseline" is established which EPA will be required to use in implementing the cellulosic biofuel mandate. All market participants will have this knowledge and, therefore, adequate incentive to increase production in order to establish the minimum EPA cellulosic biofuel requirement in an ensuing compliance year.

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[96] *See* EPA, 2017 Renewable Fuel Standard Data, https://www.epa.gov/fuels-registration-reporting-and-compliance-help/2017-renewable-fuel-standard-data (Accessed Aug. 30, 2017). AFPM and API hereby incorporate by reference the 2010-2017 production data provided in EPA's RFS Program website, https://www.epa.gov/fuels-registration-reporting-and-compliance-help/public-data-renewable-fuel-standard. *See also* EMTS data in an appendix to these comments.

Finally, API and AFPM urge EPA to provide greater transparency with respect to liquid cellulosic and CNG/LNG biogas production data. In prior years, EPA's final rules have masked the net (as opposed to gross) number of liquid cellulosic and CNG/LNG RINs produced, and have made it difficult or impossible to determine net RIN production on a monthly and annual basis. Because net RINs (rather than gross RINs) are the basis for compliance, EPA should make this data easily accessible to regulated parties and make such data part of the administrative record for purposes of judicial review.

B. EPA Should Further Reduce Advanced Biofuel Volume Requirements

EPA appropriately proposed to reduce the statutory volume target for advanced biofuel in 2018 by the same amount as the proposed reduction in the 2018 cellulosic biofuel volume. EPA also properly proposed to not "backfill" advanced biofuel volumes with non-cellulosic biofuel volumes (primarily advanced biodiesel and renewable diesel) given that statutory volumes of advanced biofuel after 2015 are "driven primarily by increases in cellulosic biofuel."[97]

EPA's approach to advanced biofuel volumes rests on the straightforward observation that Congress provided for dramatically increasing statutory volumes for cellulosic biofuel "nested" within the advanced biofuel statutory volumes. Over the period from 2015 to 2022, cellulosic biofuel becomes an increasingly substantial part of the overall advanced biofuel and total renewable fuel volumes. Thus, imposing RFS requirements that are inconsistent with this congressional expectation should be avoided. To the extent that this rationale in the 2018 proposal departs from EPA's previous practice concerning determining the appropriate volume of advanced biofuel, EPA has authority to change its policy judgments and methodology where such an action is "permissible" and the Agency provides a "reasoned explanation" for this change.[98]

EPA provides several rationales for its approach. For instance, imposing a higher advanced biofuel volume would redirect advanced feedstocks away from competing uses, which would cause market disruptions.[99] In particular, EPA projects that increasing volumes for advanced biofuels would shift supplies of advanced biodiesel and renewable diesel from other countries to the United States, thereby causing a shift to conventional renewable- or petroleum-based feedstocks in those other countries. In addition, this shift would result in additional emissions from transportation of the additional feedstocks to U.S. shores.

EPA also cites continuing economic uncertainty due to the expiration of a tax credit for blending biodiesel, as well as pending proposals to alter any renewed credit. Following the expiration of the blenders' tax credit for biodiesel at the end of 2016, EPA does not believe it is reasonable to

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[97] 82 Fed. Reg. at 34,220.

[98] EPA cites to *FCC v. Fox TV Stations*, 556 U.S. 502, 514-515 (2009) for its ability to adopt a new "permissible" approach to its use of cellulosic waiver authority. EPA may also clearly change course where it supplies a "reasoned analysis" for the change. *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Ins. Co.*, 463 U.S. 29, 42 (1983). Where EPA engages in appropriate balancing of RFS provisions and provides a rationale for adjusting its implementation of the statute as it does here, it is able to satisfy the requirements for altering its approach to setting advanced biofuel volumes.

[99] 82 Fed. Reg. at 34,221.

project increasing volumes of imported biodiesel and renewable diesel in 2018.[100] This situation may be further complicated by congressional consideration of changing the tax credit from a blenders' credit to a producers' credit, which would effectively disallow foreign renewable fuel producers to benefit from the credit. And pending Department of Commerce action on trade matters referenced in these comments will likely further reduce available supply.

EPA proposes that 2.5 billion gallons of advanced biodiesel and renewable diesel is "reasonably attainable" in 2018, an increase of 100 million gallons over 2017. EPA also believes that 60 million gallons of "other advanced biofuel" will be available in 2018, consisting of heating oil, naphtha, "D5" renewable diesel, and domestic ethanol.[101] Combining these amounts with EPA's 2018 projected volume of cellulosic biofuel (238 million) and 100 million gallons of projected imported sugarcane ethanol, EPA proposes to determine that 4.24 billion gallons of advanced biofuel is "reasonably attainable in 2018."[102]

EPA's estimate of the volume of advanced biofuel that is "reasonably attainable in 2018" however is overly optimistic. Rather than treating imported biofuels, including the effect of the expired biodiesel tax credit on projected imports as EPA has in the proposal, EPA should take a more straightforward approach to imports. As discussed in the following section, EPA should focus on the domestic supply of these renewable fuels when determining advanced biofuel volumes for 2018. Exclusion of these imported fuels combined with other the analysis provided above would yield the following volumes for advanced biofuel in 2018:

	Volume (million gallons)
Cellulosic	216[103]
Advanced Biodiesel/Renewable Diesel	2,360[104]
Other Advanced Biofuel	30[105]
Total 2018 Advanced Biofuel	2,606

[100] *Id.* at 34,225.

[101] *Id.* at 34,227. In the category of "other advanced biofuel," 60 million gallons represents total supply of advanced biofuel other than sugarcane ethanol.

[102] *Id.* at 34,228.

[103] Per the discussion in Section V *infra*, EPA could consider setting cellulosic biofuel volumes on the basis of actual production in 2017, yielding a different amount. The cellulosic biofuel volume of 216 million gallons is an estimate based on the assumption that the three months of production used to set the 2018 standard average 18 million gallons per month.

[104] Expressed in gallon-RINs. The advanced biodiesel/renewable diesel volume is calculated by using only the domestic portion of the current 2.1 billion requirement for 2018. Specifically, in 2016, domestic D4 RINs that were generated were 2,900 million, while there were 1,200 million RINs generated based on D4 imports. Therefore, domestic production of D4 RINs in 2016 was 72.5% of the total 2016 volume for biomass-based diesel. If this same percentage is applied to the 2018 volume for biomass-based diesel, a total volume of 1,522.5 million gallons/2,360 million RINs can be calculated, *i.e.*, 2,100 million gallons * 72.5% = 1,522.5 million gallons (2,360 million RINs at 1.55 equivalence value).

[105] EPA has considered that the total supply of advanced biofuel (other than imported sugarcane) has been relatively constant during 2014 and thus proposes to find that 60 million gallons would be reasonably attainable in 2018. 82 Fed. Reg. at 34,227. EPA indicates, however, that it may modify its projection as information becomes available during the year. In 2016, EMTS shows 26.3 million D5 naphtha RINs and 1.5 million D5 heating oil RINs. This historical production is the basis of the 30-million gallon recommendation.

EPA should therefore utilize its waiver authorities to the extent permissible to address imported biofuels. EPA may rely on both prongs of its general waiver authority to revise advance biofuel requirements downward for 2018. As described in more detail in Section V.C. *infra*, EPA may exclude foreign-produced renewable fuel from its calculation of supply for purposes of exercising a waiver based on "inadequate *domestic* supply." In addition, EPA may determine that severe economic harm would occur due to the imposition of statutory RFS volumes and waive requirements for the four renewable fuels "in whole or in part" on that basis. EPA's authority to exercise this waiver authority is explained in more detail in Section VI.A.

C. EPA Should Focus on the Domestic Supplies of Renewable Fuels When Setting RFS Volumetric Requirements

EPA has requested comment concerning biofuel imports, including any "inherent authority or other basis consistent with general construction of authority in the statute to reduce the required volume of advanced biofuel (with a corresponding reduction to the total renewable fuel requirements) below the level proposed for 2018."[106] As EPA notes, the goals of the RFS include promoting "greater energy independence and security," and statutory provisions concerning BBD require an assessment of the impact of renewable fuels on the energy security of the United States.

EPA may properly interpret its statutory authority to *exclude* imported biofuel from its calculation of annual volumes of renewable fuel. At the same time, EPA may allow RINs generated from imported renewable fuel to be utilized for compliance. The basis for this treatment is outlined in more detail below and in Section VI.B. *infra*, but rests on the RFS goal of increasing the energy independence of the United States and on the statutory structure of the RFS, which calculates annual compliance obligations on the basis of annual gasoline and diesel production and imports. In enacting the RFS, Congress did not intend to create mandates that subsidize foreign fuel providers at the expense of the American consumer.

As a threshold matter, no provision in CAA §211(o) prevents EPA from making distinctions between domestic- and foreign-produced renewable fuels. The fact that EPA allows imported fuel to be imported for purposes of compliance does not mean that EPA should not make reasonable distinctions between domestic and foreign-produced renewable fuel for purposes of establishing RFS mandates.

EPA has consistently described one of the goals of the RFS as reducing the use of "imported oil *and fuel*."[107] The Energy Independence and Security Act of 2007, which formed the basis of the current RFS program, also includes the goal of "promoting energy independence."[108] Given those goals, including foreign production of renewable fuels in the calculation of the amount of renewable fuel that is "reasonably attainable" is illogical, because foreign production and imports are an obstacle to energy independence, not a promoter of such independence.

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[106] 82 Fed. Reg. at 34,212.
[107] *Id.* at 23,906 (emphasis added).
[108] *See, e.g.*, 75 Fed. Reg. at 14,670, 14,705.

Indeed, to the extent that substantial reductions in the use of imported oil and fuel[109] have been achieved in recent years, these goals have been achieved for reasons other than implementation of the RFS. Thanks to technological advancements in oil production and refining, U.S. dependence on foreign sources of oil and fuel products has dropped from 58% in 2007, to 24% today.[110]

When projecting available supplies of renewable fuel for future compliance years, EPA typically reviews renewable fuel production in previous years.[111] Thus, inclusion of foreign supplies in the volumetric requirements for any one year tends to increase the volume of renewable fuel that EPA projects is available in the future. This risks improperly "locking in" such production, increasing future dependence on that foreign production. Including foreign-produced renewable fuel within the domestic supply of such fuel also provides an incentive for additional foreign production in the future. This can only serve to undermine the statute's purpose of promoting American energy independence. This situation is exacerbated where there may be instances of product dumping and unfair subsidization of imports, as reflected in the pending Department of Commerce investigation of imports of biodiesel from Argentina and Indonesia.[112]

The Department of Commerce[113] announced an affirmative preliminary determination in the countervailing duty ("CVD") case on biodiesel imported from Argentina and Indonesia. This action will impact a significant source of imported[114] biodiesel and potentially cause market disruptions. To the extent that biodiesel provides marginal volumes of renewable fuel for meeting annual standards, trade sanctions on imported biodiesel could further increase the costs for obligated parties and consumers. Historically, biodiesel[115] has been a renewable fuel that is significantly more costly than petroleum diesel and more costly than ethanol.

AFPM and API recognize that, because the statute provides that importers may be obligated parties, some might argue that imports of renewable fuel are part of the supply of renewable fuel and should be used to calculate annual RFS volume requirements. But CAA §211(o) does not dictate this result. Instead, EPA has authority to determine the applicable volume of renewable fuel pursuant to CAA §211(o)(2)(B) and to calculate annual renewable fuel obligations under CAA §211(o)(3)(ii) that shall be applicable to importers, as well as to other parties, as *appropriate*. The statute does not specify that foreign-produced renewable fuel is part of the "applicable volume" of renewable fuel or that it is to be included within the volume percentages that apply to obligated parties.

Moreover, RFS obligations are imposed on importers on the basis of their importation of gasoline and diesel into the United States, not on their imports of renewable fuel. RFS obligations are required to "ensure that transportation fuel sold or introduced into commerce in

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[109] 72 Fed. Reg. at 23,906 (emphasis added).

[110] https://www.eia.gov/tools/faqs/faq.php?id=727&t=6.

[111] *See, e.g.,* Table IV.B.3-1-- Historical Supply of Other Advanced Biofuels, 82 Fed. Reg. 34,227.

[112] Initiation of the Department of Commerce investigation began on April 13, 2017. *See* http://www.trade.gov/press/press-releases/.

[113] https://www.commerce.gov/news/press-releases/2017/08/us-department-commerce-issues-affirmative-preliminary-countervailing-1.

[114] https://www.eia.gov/dnav/pet/pet_move_impcus_a2_nus_EPOORDB_im0_mbbl_m.htm.

[115] https://www.eia.gov/pressroom/testimonies/howard_06222016.pdf.

the United States . . . contains at least the applicable volume of renewable fuel."[116] This requirement prevents a possible "loophole" whereby imported gasoline or diesel might be able to avoid incurring RFS obligations. However, the fact that RFS obligations may be incurred through the importation of gasoline and diesel is entirely separate from the issue of whether EPA should base RFS volume requirements on foreign-produced renewable fuel or should base such requirements solely on domestic production of renewable fuel that will be used in transportation fuel in this country. Since EPA has authority to *not* impose renewable fuel obligations on importers if *appropriate*, it likewise has authority to tailor this obligation to better serve the purposes of the RFS with regard to energy independence. Similarly, where EPA relies on the second prong of its general waiver authority to lower required applicable volumes of renewable fuel, it is required under CAA §211(o)(7)(A)(ii) to consider only the *domestic* supply.

AFPM and API recognize that current RFS regulations impose obligations on importers to surrender RINs in accordance with the amount of gasoline and diesel they import into the United States.[117] And EPA in the past has cited to other requirements, such as the non-discrimination principles under the World Trade Organization, as a "concern" if the U.S. were to discriminate against foreign-produced renewable fuels.[118] But these regulatory requirements and concerns do not dictate that EPA *must* consider foreign-produced renewable fuel for purposes of calculating "reasonably attainable" renewable fuel mandates. Instead, these factors go solely to domestic *compliance* with the RFS.

Excluding foreign-produced renewable fuel in determining annual RFS volumes of renewable fuel would not require a broad rewrite of current regulatory provisions. EPA can and should retain the current RIN compliance structure, along with requirements that renewable fuels produced outside the United States comply with applicable regulatory definitions. Were EPA to take this approach, foreign-produced renewable fuels would remain available for compliance purposes, and there would be no discrimination against such suppliers. But since foreign-produced renewable fuels do not promote U.S. energy independence, they would not serve as a basis for increasing the mandates on obligated parties located in this country.

Several other policy considerations support this approach. As noted in API's comments on the proposed 2017 RFS:

> A direct implication of setting renewable fuel volume standards that exceed the ethanol blendwall is that it encourages imported biodiesel that is produced from palm oil. EPA's own analysis finds that biodiesel produced from palm oil fails to meet GHG emission reduction requirements of the RFS, except it is allowed if it meets grandfathering provisions of EISA. Biodiesel imports into the U.S. from Indonesia, a leading palm oil producing country, have increased from zero in 2012 to 73 million gallons in 2015. This outcome of increased palm oil biodiesel consumption in the U.S. is another inconsistency with EISA's stated purpose to "…to increase the production of clean renewable fuels…"

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[116] CAA §211(o)(2)(A)(i); *see also* 40 C.F.R. §80.1407.
[117] 40 C.F.R. §80.1406(a)(1).
[118] Response to Comments for 2017 RFS at 186.

> In the 2017 RFS proposal, EPA set the conventional volume at 14.8 billion RINs or 10.42% of the gasoline pool if all conventional biofuel were ethanol, hence breaching the E10 blendwall. In Table IID.1 of the proposal, EPA assumes 400 million gallons of conventional biodiesel/renewable diesel are included in the conventional D6 pool. This continued practice of EPA to encourage imports from grandfathered facilities, including palm based biodiesel/renewable diesel results in significant increases in GHGs, contrary to the stated intents of the Agency to lower GHGs.[119]

Given EPA's express solicitation of comment in this area, we encourage the Agency in the final rule to consider whether there is "inadequate domestic supply" that supports use of its general waiver authority and to recalculate both advanced biofuel and total renewable fuel volumes without consideration of foreign production.

VI. Recommendation on 2018 Renewable Fuel Volumes/Use of "Severe Economic Harm" and "Inadequate Domestic Supply" General Waiver Authorities

On the basis of our comments above concerning total ethanol, cellulosic biofuel, and advanced biofuel volumes for 2018, we recommend that EPA determine "reasonably attainable" volumes of renewable fuel utilizing its available waiver authority as follows:

	Million RINs
Ethanol	13,960[120]
Non-Ethanol Cellulosic	200[121]
Biomass-Based Diesel	2,360[122]
Other Advanced Biofuel	30
D6 Biodiesel/Renewable Diesel	500[123]
Total Renewable Fuel Volume 2018	17,050

This level of total renewable fuel and other renewable fuel volumes in 2018 is necessary to avoid severe economic harm, and thus it is lawful for EPA to reduce the volumes to these levels pursuant to the "severe economic harm" prong of its general waiver authority.

Before explaining why the present circumstances justify exercise of EPA's "severe economic harm" authority, we note that EPA may exercise its general waiver authority *concurrently* with

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[119] Comment submitted by Frank J. Macchiarola, Group Director, Downstream and Industry Operations, American Petroleum Institute at 23. EPA-HQ-OAR-2016-0004-3512.

[120] Liquid cellulosic biofuel is included within the ethanol total.

[121] Estimated; final total to be based on actual production during 2017.

[122] The 2018 volume for BBD was promulgated in the 2017 RFS. Per the calculation above for domestic production, the 2018 volume may be calculated as 1,522.5 million gallons, or 2,360 million RINs on an ethanol-equivalent basis.

[123] In 2016, EMTS shows 169.3 million biodiesel D6 RINs and 281.6 million renewable diesel D6 RINs. This is the basis for the 500 million RIN recommendation for 2018.

its cellulosic biofuel waiver authority. The D.C. Circuit has noted that EPA has "'broad discretion' to determine 'when and under what circumstances' to use its cellulosic waiver authority."[124] And in *Americans for Clean Energy*, the D.C. Circuit rejected arguments that use of cellulosic waiver authority was conditioned on use of general waiver authority, noting that "even though the cellulosic waiver provision cross-references two other statutory provisions, it does not cross-reference or otherwise incorporate by reference any limitations on EPA's waiver authority."[125] Use of general waiver authority is not incidental or incremental to EPA's use of cellulosic waiver authority. "Congress chose to grant EPA two textually distinct waiver authorities that operate in different scenarios pursuant to different limitations."[126]

In addition, when exercising its general waiver authorities, EPA has statutory ability to waive "the *requirements* of paragraph (2)." Thus, EPA may reduce the national requirement for any of the four renewable fuels specified in CAA §211(o)(2)(B) since such are requirements of CAA §211(o)(2). In the context of the proposed rule, this means that EPA may waive either the national quantity for total renewable fuel, advanced biofuel, or cellulosic biofuel, or any two or more of these requirements in the same determination.

A. EPA May Waive Applicable Volumes to Prevent Severe Economic Harm

EPA's use of its general waiver authority is proper based on a determination that imposition of the statutory volumes would cause severe economic harm affecting a state, region, or the United States. Specifically, to use its general waiver authority, EPA need only determine that severe harm *would occur* through implementation of a requirement or requirements contained in CAA §211(o)(2). In other words, if imposition of 26.0 billion gallons of total renewable fuel or 11.0 billion gallons of advanced biofuel in 2018 or 7.0 billion gallons of cellulosic biofuel would result in severe economic harm in any part of the United States, then per the express language of the statute, EPA is empowered to waive such requirements "in whole or in part."

Such conditions certainly exist here. EPA has already determined that only 4.273 billion gallons of advanced biofuel is reasonably attainable in 2018 – not the statutory "requirement" of 11.0 billion gallons.[127] Similarly, EPA has determined that there will be an adequate supply to meet a 19.24 billion gallon volume of total renewable fuel in 2018, but not the 26 billion requirement contained in §211(o)(2). Additionally EPA is proposing to waive all but 238 million gallons of the 7.0 billion gallon requirement for cellulosic biofuel.

While EPA did not propose to use its general waiver authorities to lower 2018 proposed requirements, EPA only declined to do so because it felt it could rely on its cellulosic biofuel waiver authority to implement all necessary volume reductions for the year. At no point did EPA suggest that its general waiver authority was not available for such purpose; instead the

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[124] *Americans for Clean Energy*, Slip. Op. at 73, citing the 2014-2016 final RFS rule and *Monroe Energy, LLC v. EPA*, 750 F.3d 909, 915 (D.C. Cir. 2014).

[125] *Id.* at 77.

[126] *Americans for Clean Energy, Slip. Op.* at 77-78, nt.12.

[127] 82 Fed. Reg. at 34,227.

Agency indicated that it retained authority to use its general waiver authority[128] and solicited comment on whether it should use that authority to reduce volumes further.[129]

EPA has repeatedly recognized over the last seven years (and particularly within the last four years) that the statutory renewable fuel requirements are simply not attainable. EPA has waived cellulosic biofuel requirements in every year they have been required (from 2010 to 2017) and has waived total renewable fuel and advanced biofuel requirements in every year since 2014. Since the volumetric requirements first took effect, the Agency has cumulatively waived 15.65 billion gallons of cellulosic biofuel requirements through 2017. From 2014 to 2017, EPA also was compelled by the circumstances to cumulatively waive 14.30 billion gallons of the statutory requirements for total renewable fuel and 12.06 billion gallons of advanced biofuel. And in the context of the current proposed rule, EPA is proposing to waive an *additional 6.8 billion gallons* of the statutory requirements for total renewable fuel, advanced fuel and cellulosic biofuel.[130]

Nothing in the record indicates that the conditions that have been present from 2014 on, which have led to successive waivers of billions of gallons of renewable fuel, have changed in 2017 or will change in 2018. Consequently, EPA has recognized in this proposed rule, that it cannot implement any of the three statutory renewable fuel requirements in 2018 or increase the level of 2018 BBD requirements in 2019 without causing severe harm to the economy. This provides a *prima facie* case for exercise of the agency's general waiver authority. Where, as here, severe economic harm would occur[131] if EPA does not act to waive statutory requirements for renewable fuel, general waiver authority is available.[132]

B. The "Inadequate Domestic Supply" Waiver is Available to Reduce Required Volumes of Renewable Fuel

In *Americans for Clean Energy,* the D.C. Circuit held that "the 'inadequate domestic supply' provision authorizes EPA to consider only *supply-side* factors affecting the volume of renewable fuel that is available to *refiners, blenders and importers* to meet the statutory volume requirements"[133] AFPM and API do not endorse or adopt this interpretation of the statute. However, it is important to note that in *Americans for Clean Energy*, the court did not directly address the meaning of "domestic" within this prong of the general waiver provision, nor was the meaning of that term briefed or argued.

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[128] "We also have the authority to reduce any volume target pursuant to the general waiver authority in CAA section 211(o)(7)(A) under specific conditions described in Section II.A.2 [describing general waiver criteria]." *Id.* at 34,228.

[129] *Id.* at 34,213.

[130] Statutory requirements for cellulosic biofuel, advanced biofuel, and total renewable fuel are 7.0 billion gallons, 11.0 billion gallons, and 26.0 billion gallons, respectively. EPA is proposing to reduce these volumes to 238 million gallons for cellulosic biofuel, 4.24 billion gallons for advanced biofuel, and 26.0 billion gallons for total renewable fuel.

[131] NERA ECONOMIC CONSULTING, ECONOMIC IMPACTS RESULTING FROM IMPLEMENTATION OF THE RFS2 PROGRAM (2012, 2015). See appendices to these comments.

[132] EPA has not provided definitive guidance on what constitutes "severe" harm even as it has addressed general guidance for the submission of petitions requesting a waiver. *See* 73 Fed. Reg at 47,172, 47,183-184.

[133] *Slip Op.* at 4 (emphasis in original).

EPA has provided a sufficient rationale for substantially lowering both renewable fuel volumes in 2018, and as described elsewhere in these comments, we believe that the Agency should make further reductions in 2018 volume requirements. In this regard, while EPA has proposed to rely on its cellulosic waiver authority to make volume reductions, EPA may concurrently use its general waiver authority to reduce such volumes; specifically by excluding imported renewable fuel from consideration in setting annual volumes individually for *each* of these renewable fuels.

i. A General Waiver Based on Inadequate Domestic Supply Permits EPA to Focus on Domestic Production

EPA may rely on its "inadequate domestic supply" waiver authority to lower the statutory volumes to an amount equivalent to the anticipated *domestic* production of renewable fuel.[134] This approach flows directly from a plain reading of the statutory language.

The definition of "domestic" compels an interpretation that solely focuses on renewable fuels production occurring in the United States. *Merriam-Webster Dictionary* defines "domestic," as pertinent in this context, as "of, relating to, or originating within a country and especially one's own country." [135] The *Oxford English Dictionary* similarly defines "domestic" as "[o]f or pertaining to one's own country or nation; not foreign, internal, inland, 'home.'" [136] The *American Heritage Dictionary* defines "domestic" as "[o]f or relating to a country's internal affairs: domestic issues such as tax rates and highway construction."[137] None of these definitions supports the interpretation that renewable fuels available for import from a foreign source are part of the "domestic supply" for purposes of determining whether the statutory volumes can be met.

The plain meaning of "domestic supply" is further supported by the criteria for setting BBD requirements starting in 2013 and for *all renewable fuel* starting in 2023. Specifically, CAA §211(o)(2)(B)(ii) provides that in setting requirements for these years EPA "shall" determine applicable volumes with reference to "the impact of renewable fuels on the energy security of the United States . . . the impact of renewable fuels on the infrastructure of the United States [and] the impact . . . on other factors, including job creation . . . [and] rural economic development."[138] All of these criteria are unequivocally domestic concerns; no factor that EPA must consider references the consideration of any factors which occur exclusively outside of the U.S..

While EPA should not include imported renewable fuels to increase the RFS mandates, Congress specifically contemplated that imported renewable fuels *can* be used for demonstrating compliance with the volumes EPA establishes (*i.e.*, for the generation of RINs). For example,

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[134] In the proposal, EPA explicitly solicited comment "on what steps EPA might take to ensure energy independence and security . . . and to what degree [consideration of biofuel imports] could support the use of the general waiver authority, inherent authority or other basis consistent with the general construction of authority in the statute to reduce the required volume of advanced biofuel (with a corresponding reduction to the total renewable fuel requirement) below the level proposed for 2018." 82 Fed. Reg. at 34,212. Our comments regarding EPA's use of the "inadequate domestic supply" waiver authority to exclude consideration of foreign-sourced renewable fuels in setting the volume requirements for 2018 are responsive to this request.

[135] https://www.merriam-webster.com/dictionary/domestic.

[136] http://www.oed.com/view/Entry/56663?redirectedFrom=domestic#eid.

[137] https://ahdictionary.com/word/search.html?q=domestic.

[138] CAA §211(o)(2)(B)(ii)(I),(IV),(VI).

CAA §211(o)(5)(A)(i) provides "for the generation of an appropriate amount of credits by any person that refines, blends, or *imports gasoline that contains a quantity of renewable fuel* that is greater than the quantity" required of that obligated party for the year in question. (Emphasis added.) In a similar vein, CAA §211(o)(5)(E) expressly provides that EPA "*may* issue regulations providing: (i) for the generation of an appropriate amount of credits by any person that refines, blends, or imports additional renewable fuels specified by the Administrator; and (ii) for the use of such credits by the generator, or the transfer of all or a portion of such credits to another person, for the purpose of complying with" the volumetric requirements." (Emphasis added.) Thus, the statute explicitly provides that imports are able to generate RINs, but does not provide that EPA should use imported biofuels to increase RFS mandated volumes. This bifurcation of the treatment of imported fuels serves as an important consumer protection mechanism that allows competitors to lower the cost of complying with the mandate.

ii. Focusing on Domestically-Produced Renewable Fuels is Consistent with *Americans for Clean Energy*

Excluding imported renewable fuels from consideration when analyzing EPA's waiver authority is consistent with the recent D.C. Circuit opinion on EPA's 2014-2016 RFS standards. In *Americans for Clean Energy*, the D.C. Circuit held that "inadequate domestic supply" authorizes EPA "to consider supply-side factors affecting the volume of renewable fuel that is available to refiners, blenders, and importers to meet the statutory volume requirements."[139] In reaching this decision, the court spent considerable time interpreting which product's "supply" is referenced in the waiver provision and concluded (wrongly, we believe) that "the only reasonable interpretation is that the 'product' at issue is the only product referenced in the provision: 'renewable fuel.'"[140]

While the court did state that "EPA may consider factors affecting the availability of renewable fuel available to refiners, blenders, and importers to meet the statutory volume requirements . . . [including] . . . the amount of renewable fuel available for import from foreign producers,"[141] the question of whether the "*domestic* supply" of renewable fuel can permissibly include foreign renewable fuel that is available for import was not at issue in that case, nor was it briefed or argued by any party. The court's statement is therefore dictum.[142] Moreover, including imported biofuels within the "inadequate domestic supply" waiver provision would serve to read "domestic" out of the statute.

VII. Biomass-Based Diesel in 2019

EPA has cited several factors that affect its assessment of BBD production and the amount of "reasonably available" BBD in 2019. First, biodiesel tax credits expired at the end of 2016, and

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[139] *Slip Op.* at 4. As noted above, AFPM and API do not agree with the D.C. Circuit that use of the "inadequate domestic supply" general waiver is limited to supply-side factors affecting only the supply to obligated parties, but that the provision may also consider constraints on supply to consumers as articulated by EPA in its 2014-2016 RFS rule.

[140] *Id.* at 26.

[141] *Id.* at 29 (emphasis added).

[142] *See, e.g.*, *Webster v. Fall*, 266 U.S. 507, 511 (1925) (stating that "[q]uestions which merely lurk in the record, neither brought to the attention of the court nor ruled upon, are not to be considered as having been so decided as to constitute precedents").

it appears unlikely that such credits will be reinstated by November 30, 2017, the statutory deadline for promulgating requirements for total renewable fuel, advanced biofuel, and cellulosic biofuel. As EPA has noted, "[t]he historic data indicates that biodiesel tax policy in the United States can have a significant impact on the supply of biodiesel and renewable diesel in any given year."[143] And, while EPA considers the impact of the expired tax credit on biodiesel imports to be "highly uncertain,"[144] it is clear that its expiration is a disincentive to the importation of BBD into the United States.

EPA also believes that the level of the 2018 standard for BBD affects the supply of qualifying fuel in 2019. EPA states that "it is reasonable to expect that the supply of biodiesel and renewable diesel could increase [by 100 million gallons] from 2017 to 2018 without the biodiesel tax credit, but with the 2018 RFS requirements in place to incentivize the necessary supply."[145] With the 2018 requirement in place, EPA projects that the biodiesel and renewable diesel market is capable of supplying 2.9 billion gallons in 2019.

At the same time, however, EPA believes that the level of the BBD standard does not "drive" actual use, but that volumes above the standard are driven by the requirements for advanced biofuel and total renewable fuel, the tax credit, and favorable blending economics.[146] And EPA believes that it should set a standard for BBD that "preserv[es] space under the advanced biofuel standard for non-BBD advanced biofuels, as well as BBD volumes in excess of the BBD standard . . . ."[147]

Given EPA's interpretation of its authority to project BBD volumes and set standards with respect to what it perceives as an objective of the RFS program (*i.e.*, to allow for growth in advanced biofuels other than BBD), EPA would be well within its authority to focus on domestic production when setting the standard for BBD in 2019.

Imports of biodiesel and renewable diesel have been increasing since EPA began establishing volume requirements for BBD in 2013 in the absence of statutory volumes (other than the statutory "floor" of one billion gallons). Imported biodiesel and renewable diesel amounted to 156 million gallons and 145 million gallons respectively in 2013, for a total level of 301 million gallons of imported fuel. In 2016, imported biodiesel and renewable diesel amounted to 561 million gallons and 170 million gallons, respectively. Thus, total imports of biodiesel and renewable diesel have increased from 301 million gallons in 2013 to 731 million gallons in 2016.[148] This represents an increase of over 240% in four years. EPA may take this rapid growth in imports into account as contrary to the energy independence objectives of the RFS. Accordingly, as discussed above, EPA must focus on the domestic production of such renewable fuels when the Agency determines the appropriate renewable fuel volumes to be used.

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[143] 82 Fed. Reg. at 34,255.
[144] Id. at 34,226.
[145] *Id.* at 34,233, nt. 96.
[146] *Id.* at 34,239.
[147] *Id.* at 34,240
[148] Source: Table IV.B.2-1 of proposed rule.

Given that there is no specified "applicable volume" of BBD after 2012, EPA also faces no statutory constraint in excluding amounts of imported BBD when it determines the appropriate renewable fuel volumes.[149] EPA's proposed volume of 2.1 billion gallons in 2019 is over twice the level of the statutory minimum of 1.0 billion gallons and is considerably below actual levels utilized for compliance with the RFS. Thus, lowering the 2019 requirement to exclude consideration of imported BBD (*e.g.*, 730 million gallons in 2016) would still leave the required volume in excess of statutory minimums while allowing even greater opportunity for obligated parties to utilize a full range of advanced biofuels to meet 2019 RFS standards, consistent with EPA's stated objective to create potential for competition between BBD and other advanced biofuels.[150] Such a result would also allow the market to better decide which renewable fuels to use given the large price differential between BBD and petroleum diesel.

Finally, when establishing the BBD requirement, EPA should account for the continuing enforcement actions and the large amount of BBD RINs that EPA has held to be "invalid". AFPM and API have previously supported changes in enforcement policies in this area that require the replacement of invalid RINs even where an obligated party had no knowledge of illicit activity regarding fraudulent RINs. We include previous statements on this matter in AFPM/API comments to EPA on the RFS RIN Quality Assurance Plan proposal in 2013 (an appendix to these comments).

VIII. Suggestions for Improving the RIN Market

EPA seeks comment with regard to the operation of the RIN market related to market manipulation and RIN trading. EPA also seeks comment on specific RIN data elements and posting frequency that stakeholders believe would increase market transparency and liquidity.

Regarding market manipulation, EPA should reexamine how the Agency treats "invalid RINs" for the purpose of enforcement. While the Agency has taken some steps to improve validation methods for RINs, it is clear that invalid RINs continue to make their way into the marketplace. Within the last ten months, EPA has issued four separate Notices of Violations involving over 160 million RINs.[151] These enforcement actions have included both RINs that were verified as A-RINs under EPA's Quality Assurance Plan rule and unverified RINs. Given the breadth, variety, and indeed the ingenuity of past RIN fraud schemes, even the most diligent purchaser of RINs remains at risk of acquiring RINs that EPA will later determine are invalid and must be replaced.

EPA should therefore consider making adjustments to its enforcement policies concerning "invalid RINs," as well as regulatory changes that protect good faith purchasers of invalid RINs. AFPM and API have previously submitted comments on these issues, specifically with regard to EPA's requirement that invalid RINs be replaced by obligated parties, even while such parties took prudent steps in the purchase of RINs for compliance. Specifically, AFPM and API have noted that:

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[149] EPA need only comply with the minimum volume of 1 billion gallons as specified in §211(o)(3)(B)(v).

[150] Draft Statutory Factors Assessment for the 2019 Biomass Based Diesel (BBD) Applicable Volume, Memorandum to docket, Office of Transportation and Air Quality at 5.

[151] *See:* https://www.epa.gov/enforcement/civil-enforcement-renewable-fuel-standard-program.

> EPA asserts that the requirement to replace RINs is needed to ensure the annual national RFS volumes are met. Yet, the fact remains that it is not possible to go back in time and induce additional biofuel production for a prior year. For this reason it is impossible to "keep the program whole" and EPA's insistence on RIN replacement would not achieve that goal . . . The liability stemming from RIN invalidity should be limited to the party or parties that caused the invalidity to occur. Requiring RIN replacement or civil penalties for a verified RIN should be limited to renewable fuel producers, RIN generators, auditors, and parties that otherwise caused RINs to become invalid. Requiring obligated parties to replace verified RINs undermines the value of the affirmative defense and may not solve the RIN liquidity problem. Obligated parties who have purchased verified RINs without actual knowledge of invalidity should not be required to re-purchase RINs to replace any verified RINs that EPA subsequently has determined to be invalid.[152]

Some of the same considerations also apply to the case of unverified RINs. As with verified RINs, requiring RIN replacement does not impact renewable fuel production that occurred in the past. EPA should therefore impose the requirement to replace RINs *to the party or parties who caused the invalidity to occur*.

Requiring obligated parties to replace either verified or unverified RINs can also place substantial compliance pressures on an individual party. Where, as in the proposed rule, EPA has calculated renewable fuel obligations based on an assessment of the anticipated, massive shortfall in the production of cellulosic biofuel in 2018, an obligated party may need to acquire additional RINs in tight market conditions and in a timeframe which is unrelated to their current year compliance strategy. This can impose substantial costs given that individual RIN fraud cases have involved tens of millions of invalid RINs and, as noted above, there was a cumulative total of 160 million invalid RINs within the last year alone.[153]

Regarding RIN market transparency, EPA already publishes a substantial amount of information concerning RIN generation by fuel type on its website. EPA has both expanded the amount of information available through EMTS and improved the timeliness of providing such data. This data provides valuable insight into compliance activities related to the RFS.

It bears emphasizing, however, that information provided to EMTS from obligated parties is not voluntary; it is compelled by regulations requiring the reporting of transactions and other compliance activities. Therefore, obligated parties retain valid claims to Confidential Business Information concerning some of the information required to be provided to EPA.

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[152] Comments of AFPM and API, Proposed RFS Renewable Identification Number (RIN) Quality Assurance Plans, April 13, 2013, EPA-HQ-OAR-2012-0621.

[153] https://www.epa.gov/enforcement/civil-enforcement-renewable-fuel-standard-program.

IX. Conclusion

EPA may further reduce renewable fuel volumes for all four renewable fuels in 2018 relying on concurrent application of its general and cellulosic waiver authorities. Specifically, EPA may use such authority to lower the total renewable fuel volume in 2018 to 17.050 billion gallons, the total advanced biofuel volume to 2.606 billion gallons, and cellulosic biofuel volume to 216 million. BBD should be limited in 2018 to 1.522 million gallons (2,360 RINs). Reducing renewable fuel volumes and volume percentages that apply to obligated parties would better align such requirements with the statutory structure and purpose of the RFS, particularly with respect to enhancing the energy independence of the United States and the protection of consumers. Requiring no more than 9.7% volume ethanol in gasoline recognizes legal and practical constraints to utilization of higher ethanol blends in motor vehicles and equipment. Reducing the advanced and cellulosic biofuel requirements would acknowledge the hard reality that such fuels have not made significant progress in their development and use, despite ten full years of statutory mandates for such fuels.

EPA has authority to refocus the RFS on the production of *domestic* renewable fuels. EPA also should endeavor to make improvements to the operation of the RFS program and discard policies like replacement of "invalid RINs," which do not support additional production and are fundamentally unfair.

To be clear, API and AFPM and their member companies believe that biofuels will continue to play a role in the U.S. fuel supply. Our membership both purchases and produces such fuels. But where we part company from EPA's implementation of the program is where the RFS is implemented to require the use of biofuels that do not exist or that the market cannot support. EPA now has the opportunity to change course and properly refocus the RFS program consistent with Congressional intent and the realities of the fuel marketplace. We urge the Agency to proceed in this direction.

APPENDICES

AFPM comments to EPA on the 2017 RFS proposal

API comments to EPA on the 2017 RFS proposal (cover letter and detailed comments)

EPA Moderated Transaction System Data

"Economic Impacts Resulting from Implementation of RFS2 Program," October 2012, prepared by NERA for API

"Economic Impacts Resulting from Implementation of the RFS2 Program," July 27, 2015, prepared by NERA for API

AFPM/API comments to EPA on the RFS RIN Quality Assurance Plan proposal, April 18, 2013

FILED
United States Court of Appeals
Tenth Circuit

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Clerk of Court

PUBLISH

UNITED STATES COURT OF APPEALS

TENTH CIRCUIT

SINCLAIR WYOMING REFINING COMPANY, and SINCLAIR CASPER REFINING COMPANY, Petitioners, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Respondent. ---------- STATE OF WYOMING, Amicus Curiae.	No. 16-9532

PETITION FOR REVIEW OF A FINAL ORDER FROM ENVIRONMENTAL PROTECTION AGENCY (EPA No. EPA-1:CAA-08-2011-007)

Jeffrey R. Holmstead (Brittany M. Pemberton with him on the briefs) Bracewell LLP, Washington, D.C., for Petitioners.

Paul Cirino, Environmental Defense Section, Environment and Natural Resources Division, United States Department of Justice (John C. Cruden, Assistant Attorney General, Jeffrey H. Wood, Acting Assistant Attorney General, and Susan Stahle, Of Counsel, United States Environmental Protection Agency, with him on the briefs) Washington, D.C., for Respondent.

Erik E. Peterson, Senior Assistant Attorney General, Wyoming Office of the Attorney General, Cheyenne, Wyoming, on briefs for Amicus Curiae.

Before **TYMKOVICH**, Chief Judge, **LUCERO**, and **MORITZ**, Circuit Judges.

TYMKOVICH, Chief Judge.

In an amendment to the Clean Air Act (CAA), Congress directed the EPA to operate a Renewable Fuel Standards Program (the RFS Program) to increase oil refineries' use of renewable fuels. But for small refineries that would suffer a "disproportionate economic hardship" in complying with the RFS Program, the statute required the EPA to grant exemptions on a case-by-case basis.

We conclude the EPA has exceeded its statutory authority under the CAA in interpreting the hardship exemption to require a threat to a refinery's survival as an ongoing operation. That interpretation is outside the range of permissible interpretations of the statute and therefore inconsistent with Congress's statutory mandate. Because we find that the EPA exceeded its statutory authority, we vacate the EPA's decisions and remand to the EPA for further proceedings.

I. Background

In the Energy Policy Act of 2005, Congress amended the CAA to encourage the use of renewable fuels. The statute's RFS program requires oil refineries to either produce a sufficient proportion of renewable fuels as part of their output or purchase credits generated by other refineries to meet their increased renewable-fuel obligations. *See* 42 U.S.C. § 7545(o); 40 C.F.R. § 80.1429. But Congress

also directed that small refineries may receive a statutory exemption if participation in the program would cause them "disproportionate economic hardship." 42 U.S.C. § 7545(o)(9)(B).

A. The Renewable Fuel Standards Program

Through the RFS Program, Congress prescribed annual target volumes for renewable fuel sales, which increase each year until reaching a maximum level in 2022.[1] Congress charged the EPA with implementing the RFS Program and empowered it with authority to alter the statutory volumes of renewable fuel if the EPA finds that the RFS Program is causing severe economic or environmental harm or there is an inadequate supply of domestic renewable fuels. The EPA must also consult with the Department of Energy (DOE) in exercising this power. *See* 42 U.S.C. § 7545(o)(7). The statute further requires "obligated parties," including "refineries, blenders, and importers," to comply with the RFS Program. 42 U.S.C. § 7545(o)(3)(B)(ii).

Under the EPA's accompanying regulations, an obligated party must satisfy its Renewable Volume Obligation each year by holding sufficient credits, known as Renewable Identification Numbers (RINs), at the end of each compliance year. A RIN is created when a producer makes a gallon of renewable fuel, blends the renewable fuel with petroleum-based fuel, and sells the resulting product

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[1] The RFS Program is codified as Clean Air Act § 211(o), 42 U.S.C. § 7545(o)(7).

domestically. 40 C.F.R. § 80.1429. An obligated-party can accumulate RINs to meet its RFS Program requirement by: (1) blending renewable fuels into petroleum-based fuel and selling the product domestically; or (2) obtaining RINs through another source, such as the RIN trading system Congress directed the EPA to establish. *See* 42 U.S.C. § 7545(o)(5). Put simply, the program induces refineries to produce renewable fuel products (e.g., ethanol), and if they cannot, to purchase biofuel-generated credits from refineries that can.

B. Small Refinery Exemptions

Congress was aware the RFS Program might disproportionately impact small refineries because of the inherent scale advantages of large refineries and therefore created three classes of exemptions to protect these small refineries.

First, the statute exempted all small refineries from the RFS Program until 2011. 42 U.S.C. § 7545(o)(9).

Second, in the meantime, Congress directed DOE to conduct a study "to determine whether compliance [with the RFS Program] . . . would impose a disproportionate economic hardship on small refineries" after the program's implementation. 42 U.S.C. § 7545(o)(9)(A)(ii)(I). DOE conducted the study in 2011 and determined that a number of small refineries, including Sinclair's two Wyoming refineries, would suffer "disproportionate economic hardship" if they

were required to comply with the RFS Program.[2] Accordingly, the EPA extended the blanket exemption for two more years.

Third, after the exemption period expired, Congress provided a process for small refineries to petition the EPA "at any time" for an extension of the initial exemption "for reason of disproportionate economic hardship." 42 U.S.C. § 7545(o)(9)(B)(i). In evaluating these petitions, the EPA must consult with DOE and consider the findings of DOE's study in addition to "other economic factors." 42 U.S.C. § 7545(o)(9)(B)(ii).

This third exemption is at issue in this case.

C. Sinclair's Petitions for Small Refinery Exemptions

Sinclair owns and operates two refineries in Wyoming: one located in Sinclair, Wyoming, and another in Casper, Wyoming. Both fall within the RFS

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[2] DOE actually completed its first study in 2009, concluding that no small refineries would suffer "disproportionate economic hardship" if they were required to comply with the RFS Program. But Congress was unhappy with DOE's methodology and directed the Agency to conduct a new study, requiring it to "seek and invite comment from small refineries on the RFS exemption hardship question, assess RFS compliance impacts on small refinery utilization rates and profitability, evaluate the financial health and ability of small refineries to meet RFS requirements, study small refinery impacts and regional dynamics by PADD, and reassess the accuracy of small refinery compliance costs through the purchase of renewable fuel credits." *See* S. Rep. No. 111-45, at 109 (2009), 2009 WL 1994747.

DOE completed its second study in 2011, concluding that "[i]f certain small refineries must purchase RINs that are far more expensive than those that may be generated through blending, this will lead to disproportionate economic hardship for those effected entities." J.A. Vol. 1 at 69 (alteration incorporated).

Program's definition of "small refinery" and were exempt from the RFS requirements until 2011. Those exemptions were extended until 2013 after DOE found Sinclair's Wyoming refineries to be among the 13 of 59 small refineries that would continue to face "disproportionate economic hardship" if required to comply with the RFS Program.

Sinclair then petitioned the EPA to extend their small-refinery exemptions, arguing that both refineries would continue to suffer "disproportionate economic hardship" under the RFS Program. The EPA denied Sinclair's petitions in two separate decisions, finding that both refineries appeared to be profitable enough to pay the cost of the RFS Program. Sinclair filed a timely petition for review with this court. We grant Sinclair's petition for review, vacate the EPA's decisions for both of Sinclair's refineries, and remand for further proceedings consistent with this opinion.

II. Analysis

We review Sinclair's petitions under the Administrative Procedure Act (APA). The APA requires courts to consider agency action in conformity with the agency's statutory grant of power, and agency action is unlawful if it is "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right." 5 U.S.C. § 706(2)(C). *See generally id.* § 706 (describing additional agency actions that reviewing courts can hold unlawful and set aside, including arbitrary and capricious rulings).

We review questions of statutory interpretation de novo. *EnergySolutions, LLC v. Utah*, 625 F.3d 1261, 1271 (10th Cir. 2010).

A. Judicial Review of Agency Action

When a court reviews an agency's legal determination, it generally applies the analysis set out by the Supreme Court in *Chevron v. Natural Resources Defense Council*, 467 U.S. 837 (1984). Under *Chevron*, reviewing courts apply a two-step analysis. *Chevron* step one asks "whether Congress has directly spoken to the precise question at issue." *Id.* at 842–43. If Congress's intent is clear, then both the court and the agency "must give effect to the unambiguously expressed intent of Congress." *Id.* at 843. Courts determine Congress's intent by employing the traditional tools of statutory interpretation, beginning—as always—with an examination of the statute's text. *See New Mexico v. Dep't of Interior*, 854 F.3d 1207, 1223–24 (10th Cir. 2017). But, if Congress has "not directly addressed the precise question at issue"—if "the statute is silent or ambiguous with respect to the specific issue"—the court must determine at *Chevron* step two "whether the agency's answer is based on a permissible construction of the statute." *Chevron*, 467 U.S. at 843–44.

In some circumstances, however, a court never reaches the *Chevron* analysis. In such cases, we do not need to answer the step one or step two questions. As the Supreme Court explained in *United States v. Mead Corp.*, 533 U.S. 218 (2001), the initial step of the *Chevron* inquiry is actually to determine whether *Chevron* should

apply at all. *See* Cass R. Sunstein, *Chevron Step Zero*, 92 Va. L. Rev. 187, 247 (2006) (conceptualizing the inquiry of whether *Chevron* applies as "*Chevron* step zero"); *see also Gutierrez-Brizuela v. Lynch*, 834 F.3d. 1142, 1157 (10th Cir. 2016) (Gorsuch, J., concurring) (discussing the step zero inquiry and the confusion created by *Mead*).[3]

In *Mead*, the Court held that *Chevron* applies only where "it appears that Congress delegated authority to the agency generally to make rules carrying the force of law, and that the agency interpretation claiming deference was promulgated in the exercise of that authority." *Mead*, 533 U.S. at 226–27. This context-driven determination requires us to examine the method by which the agency exercised its delegated authority. *Mead* instructs: "It is fair to assume generally that Congress contemplates administrative action with the effect of law when it provides for a relatively formal administrative procedure tending to foster the fairness and deliberation that should underlie a pronouncement of such force." *Id.* at 229–30. *Mead* thus created, in effect, a "safe harbor of *Chevron* deference"

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[3] We note that neither party discussed the Supreme Court's decision in *City of Arlington v. Federal Communications Commission*, 133 S. Ct. 1863 (2013), in their supplemental briefs. We have not previously addressed the effect—if any—*City of Arlington* might have on our application of the *Mead* inquiry. But we do note that Justice Scalia, writing for the majority in *City of Arlington*, reaffirmed that courts must determine whether *Chevron* or *Mead* controls at step zero. *See* 133 S. Ct. at 1874 ("The dissent is correct that *United States v. Mead* requires that, for *Chevron* deference to apply, the agency must have received congressional authority to determine the particular matter at issue in the particular manner adopted. *No one disputes that*." (emphasis added)).

for agency interpretations produced via formal agency action—formal rulemaking or adjudication—and those produced via informal notice-and-comment rulemaking. Charles H. Koch, Jr. & Richard Murphy, 3 Admin. L. & Prac. § 10:12 (Feb. 2017 update); *see also* Richard J. Pierce, Jr., *Administrative Law Treatise*, § 3.5 (2010) ("After *Mead*, it is possible to know only that legislative rules and formal adjudications are always entitled to *Chevron* deference, while less formal pronouncements like interpretative rules and informal adjudications may or may not be entitled to *Chevron* deference.").

In situations where *Chevron* does not apply, *Mead* requires us to examine the persuasiveness of agency action with no thumb on the scale of judicial deference. As *Mead* explained, we follow the analysis set forth in *Skidmore v. Swift & Co.*, 323 U.S. 134 (1944). In that case, the Court explained that the weight courts provide an administrative judgment "will depend upon the thoroughness evident in [the agency's] consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade, if lacking power to control." *Id.* at 140.

Following *Mead*, the Court examined agency action that was less formal than notice-and-comment rulemaking when it reviewed an opinion letter issued by the Social Security Administration. *See Barnhart v. Walton*, 535 U.S. 212, 221–22 (2002). It found that such informal agency action "does not automatically deprive that interpretation of the judicial deference otherwise its due," but rather, whether

courts provide *Chevron* deference "depends in significant part upon the interpretive method used and the nature of the question at issue." *Id.* The factors the Court considered included the interstitial nature of the legal question, the related expertise of the agency, the importance of the question to administration of the statute, the complexity of that administration, and the careful consideration the agency had given the question over a long period of time. *Id.* at 222.

The question we must answer, then, is whether to apply *Chevron* or *Skidmore* deference to the EPA's use of informal adjudications to resolve Sinclair's petitions. *See WildEarth Guardians v. Nat'l Park Serv.*, 703 F.3d 1178, 1188 (10th Cir. 2013). Sinclair argues that we should review the EPA's decisions using only *Skidmore* deference, but maintains it would still prevail under a more deferential *Chevron* review. Aplt. Supp. Br. at 1–2. The EPA, of course, argues the opposite.

As a preliminary matter, we acknowledge that the EPA's decisions resolving Sinclair's hardship petitions were conducted via informal adjudication (the same procedure employed by the U.S. Customs Service in *Mead*). The parties do not seriously contest this conclusion. The decisions were *adjudications* because they were specific to the parties at issue—in fact, they were specific even to the individual refineries at issue (the EPA produced separate decisions for the Sinclair, Wyoming and Casper, Wyoming refineries)—and were resolving petitions for Sinclair's exemptions from the RFS Program. The decisions were also *informal* because they were resolved on the basis of Sinclair's submissions and involved no

oral argument, opportunity for cross-examination, or other "trial-like" procedures generally required by the APA. *See* Pierce, *supra*, at Vol. 1 § 8.2 (describing the trial-like procedures the APA requires for formal adjudications); *see also* J.A. Vol. 1 at 31 (the Casper, Wyoming refinery opinion describing Sinclair's submission).

Under *Mead*, we conclude that *Skidmore* deference applies to the EPA's decision here. First of all, Congress specifically authorized the EPA to promulgate regulations on aspects of the RFS Program, but not for the small refinery exemptions. This means the agency did not have the benefit of notice-and-comment about its interpretation of the term "disproportionate economic hardship." *See, e.g.*, 42 U.S.C. § 7545(o)(2)(A)(i) (requiring the EPA to promulgate regulations to "ensure that gasoline sold or introduced into commerce in the United States . . . contains the applicable volume of renewable fuel"). Instead, the EPA conducted its interpretation via informal adjudication. And the fact that the adjudication was *informal* is also important—Sinclair's involvement in the decision-making was limited to submitting petitions and the EPA did not have the benefit of hearing expert testimony on the topic. *See* Pierce, *supra*, at Vol. 1 § 8.2 (describing the trial-like procedures required for formal adjudications).

Additionally, the decisions were not made by the head of the EPA but instead by a mid-level Agency official. *See* Aplt. Supp. Br. at 7–8; *see also, e.g.*, *Groff v. United States*, 493 F.3d 1343, 1352 (Fed. Cir. 2000) (one factor in the court's conclusion that it should provide *Chevron* deference to the agency action was that

the adjudication at issue was "formal and culminate[d] in a formal written decision by the head of the agency, not a nonbinding disposition by a low-level agency official").

Next, the decisions hold no precedential value for third parties. Indeed, the decisions have no precedential value even for the *refiner*, since each petition must be resolved on a case-by-case basis (again, the EPA produced two decisions, one for each of Sinclair's refineries). Nor do third parties have access to the decisions, since the EPA does not publicly release its decisions because they contain confidential business information. Aple. Supp. Br. at 8.

Finally, the EPA's viability analysis is not a longstanding practice, but is, instead, only a few years old.[4]

Thus, *Mead* and *Barnhart* compel our conclusion that Congress did not intend the EPA's interpretation of "disproportionate economic hardship" to have the "force of law." We therefore apply *Skidmore* deference in reviewing the EPA's interpretation.

B. The "Disproportionate Economic Hardship" Exemption

In analyzing Congress's grant of power to the EPA to administer the RFS Program, we begin, as always, with the statutory text. "Unless otherwise defined,

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[4] Although the record does not indicate exactly how long the EPA's interpretation of "disproportionate economic hardship" has been in place, as a matter of logic, the EPA's interpretation must have been derived in 2011 at the earliest (the year that DOE released its second study).

statutory terms are generally interpreted in accordance with their ordinary meaning." *BP Am. Prod. Co. v. Burton*, 549 U.S. 84, 91 (2006); *see also Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist.*, 541 U.S. 246, 252 (2004) ("Statutory construction must begin with the language employed by Congress and the assumption that the ordinary meaning of that language accurately expresses the legislative purpose.").

1. The Statutory Requirement

As previously mentioned, Congress provided that small refineries could petition the EPA to extend their initial exemption from the RFS Program "for reason of disproportionate economic hardship." 42 U.S.C. § 7545(o)(9)(B)(i). The relevant statutory provision reads in full:

> **(B) Petitions based on disproportionate economic hardship**
>
> > **(i) Extension of exemption**
> > A small refinery may at any time petition the [EPA] Administrator for an extension of the exemption under subparagraph (A) *for the reason of disproportionate economic hardship.*
> >
> > **(ii) Evaluation of petitions**
> > In evaluating a petition under clause (i), the [EPA] Administrator, *in consultation with the Secretary of Energy, shall consider the findings of the study under subparagraph (A)(ii) and other economic factors.*

42 U.S.C. § 7545(o)(9) (emphasis added).

Although Congress did not define the term "disproportionate economic hardship" in the statute, the provision makes clear that Congress provided the EPA with a comprehensive directive in analyzing and evaluating RFS Program exemptions. The statute prescribes the overall process: (1) when petitions can be made: "at any time"; (2) the relevant agency actors: the EPA must make decisions in "consultation with" DOE; (3) the relevant question: whether a refinery will suffer "disproportionate economic hardship" if it is required to participate in the RFS Program for a given year; and (4) the methodology the agency is to use: the EPA must consider the findings of DOE's 2011 study and "other economic factors." 42 U.S.C. § 7545(o)(9)(B).

With this statutory background, we turn to whether the EPA's decisions comport with Congress's directive to grant exemptions when a small refinery demonstrates that complying with the RFS Program would cause it to suffer a "disproportionate economic hardship."

2. The EPA's Decisions

Prior to considering a refinery's petition for a hardship exemption, the EPA receives a recommendation on the petition from DOE. In its 2011 study, DOE created a scoring matrix for determining its recommendations for granting exemptions. The first part of the matrix assesses the "disproportionate structural and economic" impacts of the RFS Program on the refinery, looking both at (1) "disproportionate structural impact metrics" (a refinery's percentage of diesel

production, access to credit, local market acceptance of renewable fuels, etc.) and (2) "disproportionate economic impact metrics" (the firm's relative refining margin, the degree to which the refiner can blend renewable fuels, whether RINs are a net source of revenue, etc.). J.A. Vol. 1 at 99–102 (DOE's 2011 Small Refinery Exemption Study).

The second part of DOE's matrix assigns scores for three "viability metrics": "(1) whether the cost of compliance 'would reduce the profitability of the firm enough to impair future efficiency improvements;' (2) whether 'individual special events' have had 'a temporary negative impact on the ability of the refinery to comply;' and (3) whether compliance costs are 'likely to lead to shutdown' of the refinery." Aplt. Br. at 13–14 (quoting J.A. Vol. 1 at 103–04).

DOE's interpretation of its methodology does not require that the cost of compliance threaten a refinery's long-term viability. Instead, DOE recommends a 50 percent waiver if the ranking meets a certain threshold on either side of the matrix, although the DOE previously required the ranking meet certain thresholds on *both* sides of the matrix. J.A. Vol. 1 at 17. DOE's scoring change "is due to language included in an explanatory statement accompanying the 2016 Consolidated Appropriations Act," which instructed the DOE as follows: "'If the Secretary finds that either of these two components exists, the Secretary is directed to recommend to the EPA Administrator a 50 percent waiver of RFS requirements

for the petitioner.'" *Id.* (quoting Consolidated Appropriations Act, 2016, Pub. L. No. 114-113 (2015)).

Here, DOE applied its matrix methodology and recommended the EPA provide a 50 percent waiver of the RFS Program's requirements for both of Sinclair's refineries. *See* J.A. Vol. I at 15–17 (Sinclair, Wyoming refinery decision); J.A. Vol. I at 35–37 (Casper, Wyoming refinery decision).

The EPA rejected DOE's recommendations and denied both petitions.

In denying Sinclair's exemption for the Sinclair, Wyoming refinery, the EPA explained its view that "disproportionate economic hardship" requires a threat to the "longer term prospects" of a refinery:

> *EPA believes viability continues to be an important economic factor for determining "disproportionate economic hardship."* . . . . We consider whether [the Sinclair, Wyoming refinery] will remain a competitive and profitable refinery while satisfying its RFS obligations. EPA notes that it considers profitability not merely in the context of a single year's financial statements, but also in the context of assessing the *longer term prospects* for the refinery. EPA also evaluates viability using metrics considered by DOE in its viability index: (a) compliance costs eliminate efficiency gains (impairment); (b) individual special events; and (c) compliance costs likely to lead to shut down. In reaching our conclusion, we consider all of this information on viability, and additional relevant information as available, to determine whether [the Sinclair, Wyoming refinery] faces a "disproportionate economic *hardship*" from compliance, and not merely an economic *impact*.

J.A. Vol. 1 at 18–19 (quoting DOE 2011 Small Refinery Study) (citations omitted) (emphasis added in first sentence); *see also id.* at 38–39 (EPA's identical analysis in its denial of Sinclair's petition for the Casper, Wyoming refinery).

In applying this long-term viability interpretation, the EPA rejected DOE's matrix scores for both Sinclair refineries. The EPA concluded that "viability" meant only that program costs threatened the "long-term" survival of the refinery, not a short-term comparison to other industry actors:

> In the discussion that follows, EPA independently reviews the information as we consider other economic factors in our analysis, including, but not limited to, profitability, net income, cash flow and cash balances, gross and net refining margins, ability to pay for refinery improvement projects, corporate structure, debt and other financial obligations, RIN prices, and the cost of compliance through RIN purchases. After considering all of this information, EPA finds [the Sinclair, Wyoming refinery] will not experience "disproportionate economic hardship" from compliance with the RFS program.
>
> As an initial matter, *EPA recognizes its decision differs from DOE's recommendation.* The CAA requires that EPA act on a small refinery's petition "in consultation with" DOE, "consider[ing] the findings of" the DOE Small Refinery Study and "other economic factors." EPA gives weight to DOE's technical evaluation and scoring of the refinery, recognizing that DOE has more experience in assessing, e.g., the impact of a particular special event, and how to balance short-term events with longer term planning and concerns over viability. *However, EPA has responsibility for making the ultimate decision after considering DOE's evaluation and recommendation, and continues to believe that the proper interpretation of the statutory prerequisite—disproportionate economic hardship—involves "examining the impact of compliance costs on a refinery's*

> *ability to maintain profitability and competitiveness—i.e. viability—in the long term.*"

J.A. Vol. 1 at 17–18 (quoting CAA section 211(o)(9)(B)(ii) and, in last sentence, *Hermes Consol., LLC v. EPA*, 787 F.3d 568, 575 (D.C. Cir. 2015)) (emphasis added).

Thus, according to the EPA, to show "disproportionate economic hardship" a small refinery must demonstrate an existential threat: it "faces RFS compliance costs that would '*significantly impact the operation of the firm, leading eventually to an inability to increase efficiency to remain competitive, eventually resulting in closure.*'"[5] J.A. Vol. 1 at 19–20 (quoting DOE Small Refinery Study) (emphasis added); *see also id.* at 39–40 (EPA's identical analysis in its denial of Sinclair's petition for the Casper, Wyoming refinery).

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[5] The dissent describes this sentence as "regrettably inartful," claiming that the EPA did not mean what it said, but rather applied DOE's viability metrics in a "nuanced analysis." Diss. at 1. But, as we have shown above, we do not read this sentence in isolation. And, in any event, the EPA repeats this language in its advocacy before us, using it to describe the test it applied in resolving Sinclair's petitions.

> "Viability" is a term of art for purposes of EPA's assessment of petitions for small refinery exemptions. . . . EPA has also described this factor as *requiring* a small refinery to "show that it faces RFS compliance costs that would 'significantly impact the operation of the firm, leading eventually to an inability to increase efficiency to remain competitive, eventually resulting in closure.'"

Aple. Br. at 40 n.11 (internal citations omitted) (emphasis added).

As we discuss next, the EPA's long-term threat of closure requirement is inconsistent with the plain meaning of "disproportionate economic hardship."

3. The Plain Meaning of "Disproportionate Economic Hardship"

Sinclair claims the EPA's position is that "no matter how disproportionate the economic *impact* of the RFS Program on other refineries, there can be no 'disproportionate economic *hardship*' unless compliance with the RFS Program is so costly that it will eventually force a small refinery to shut down," and argues that this position is contrary to the plain language of the term "disproportionate economic hardship." Aplt. Br. at 34. Sinclair also maintains that the EPA's "viability" test not only fails the agency's statutory duty to compare the refinery at issue with its competitors, but also requires significantly more "hardship" to the refinery than the statute instructs.[6]

The statutory text at issue allows a range of linguistic possibilities in defining "disproportionate economic hardship." But as we discuss below, the EPA's interpretation falls outside the boundaries of permissible choice. It chose a

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[6] We reject the EPA's argument that Sinclair "waived" its statutory interpretation argument by failing to raise it during the administrative proceedings. *See* Aple. Br. at 32–33. Sinclair fully explained its understanding of the statutory term as informed by DOE's exemption study and recommendation that Sinclair was eligible for a 50 percent exemption. And, in any event, statutory interpretation is the specialization of the courts, not the agencies. *See Frontier Airlines, Inc. v. Civil Aeronautics Bd.*, 621 F.2d 369, 371 (10th Cir. 1980) ("The general rule requiring exhaustion of remedies before an administrative agency is subject to an exception where the question is solely one of statutory interpretation.").

definition of economic hardship plainly at odds with Congress's statutory command by reading a "viability" requirement into the statute and the "disproportionate" requirement out of it.

We first evaluate Sinclair's argument that the EPA improperly imported a condition of future long-term viability into the statutory language. This question is hardly in dispute, because the EPA admits as much. The EPA concluded its decision for the Sinclair, Wyoming refinery with the following statement:

> EPA does not doubt that Sinclair incurred costs, both planned and unplanned, which affected profitability. However, as discussed above, *EPA believes that it is necessary to show that RFS compliance will have an impact on the refinery's ongoing future viability to be eligible for an exemption.* After considering the full financial picture of [the Sinclair, Wyoming refinery] for 2014 and prior years, EPA does not find that compliance with RFS for 2014 would threaten [the Sinclair refinery]'s viability. Given [the Sinclair refinery]'s situation, we do not believe that an RFS exemption for [the Sinclair refinery] is justified under the statutory requirement of a disproportionate economic hardship.

J.A. Vol. 1 at 20–21 (emphasis added); *see also id.* at 39–40 (similar language in the Casper, Wyoming refinery opinion).

The EPA's use of the word "necessary" proves Sinclair's point. If long-term "viability" was merely *one* element the EPA considered in its "disproportionate economic hardship" analysis, that would be a different story. But by stating that future viability (meaning whether the firm will go out of business) is *necessary*

to—in effect, the *sine qua non* of—its decision, the EPA demonstrates it will not grant an exemption *unless* there is a threat to a refinery's long-term viability.

The EPA's interpretation takes the statutory language too far. First, as a matter of textual exegesis, a "'hardship'" is something that "makes one's life hard or difficult—not just something that makes continued existence impossible." Aplt. Br. at 35; *see Oxford English Dictionary* (2017) (defining "hardship" as "[s]omething which is hard to bear"); *Black's Law Dictionary* (10th ed. 2014) (defining "hardship" as "[p]rivation; suffering or adversity"); *Webster's Third New Int'l Dictionary* 1033 (1971) (defining "hardship" as "something that causes or entails suffering or privation").

"[V]iability," on the other hand, is the "ability to continue or be continued; the state of being financially sustainable." *Oxford English Dictionary* (2017); *see also Webster's Third New Int'l Dictionary* 2548 (1971) (defining "viability" as "the quality or state of being viable," and defining "viable," in turn, as "capable of living"). As a matter of common sense, an experience that causes hardship is less burdensome than an experience that threatens one's very existence. Our law clerks, for example, might say their first year of law school was a "hardship" they suffered, but they could hardly claim that the experience of learning the law threatened their very "viability" (we hope).

The EPA argues that "viability" and "hardship" are the same, since "hardship" can be defined as "suffering" and "privation." Aple. Br. at 38. But as

we just explained, "suffering" and "privation" may be difficult to bear, but they do not necessarily rise to the level of threatening one's very existence. And the EPA's interpretation of "viability" is akin to a death knell, not simple privation. In any event, DOE's matrix analysis supplied three "viability metrics" that collectively determine hardship: (1) reduced profitability; (2) temporary negative events; and (3) risk of closure. *See* J.A. Vol. 1 at 103. The EPA's interpretation ignores two-thirds of this analysis and selects only risk of closure as the appropriate measure of hardship. This is not a reasonable interpretation of the statutory term. In short, the EPA's equation of "hardship" and "viability" improperly transforms Congress's statutory text into something far beyond what Congress plausibly intended.

The statute also commands the EPA to consider the *disproportionate* impact of the RFS Program, which inherently requires a comparative evaluation. The EPA must compare the effect of the RFS Program compliance costs on a given refinery with the economic state of other small refineries. The EPA's viability test involves no such comparison, but instead looks at each refinery in isolation and asks whether the cost of long-term compliance with the RFS Program would force the refinery to shut down. By making long-term viability a necessary factor in its analysis, the EPA impermissibly reads the word "disproportionate" out of the statute. *See Clark v. Rameker*, 134 S. Ct. 2242, 2248 (2014) ("a statute should be construed so that effect is given to all its provisions, so that no part will be inoperative or superfluous"). The EPA tries to sidestep the comparative nature of

the "disproportionate economic hardship" by pointing out that the statute requires the EPA to consider DOE's study and "other economic factors." Because viability is one of the factors considered by DOE, the EPA argues it is also an appropriate consideration for the EPA. *See* Reply Br. at 11. But as we explained above, the statutory requirements for what *sources* the EPA must consider in evaluating the petitions are distinct from the overall *purpose* of the inquiry. In effect, the EPA takes the holistic evaluation required by Congress and morphs it into a single question: a threat of closure inquiry.

The EPA's narrow viability evaluation is also not supported by contextual clues in the statutory scheme. Congress, in fact, directed the EPA to apply a closure test for another part of the CAA involving primary nonferrous smelter orders. 42 U.S.C. § 7419(d)(2) (requirement to use continuous emission reduction technology can be waived "upon a showing by the owner or operator of the smelter that *such requirement would be so costly as to necessitate permanent or prolonged temporary cessation of operations* of the smelter." (emphasis added)). Although this CAA provision is not part of the RFS Program, it makes the basic point that Congress knows how to supply a closure test when it intends to do so. *See* Antonin Scalia & Bryan A. Garner, *Reading Law: The Interpretation of Legal Texts* 170–73 (2012) (discussing the presumption of consistent usage).

The EPA places significant weight on two recent circuit court decisions addressing § 7545(o)(9)(B)(ii), which it claims support its interpretation of the

statute: *Hermes Consolidated, LLC v. EPA*, 787 F.3d 568 (D.C. Cir. 2015) and *Lion Oil Company v. EPA*, 792 F.3d 978 (8th Cir. 2015). In *Hermes*, a refinery challenged the EPA's denial of its extension for an economic hardship exemption from the RFS Program (a denial supported by DOE's matrix scheme). The court rejected the refinery's challenge under *Chevron* step one, concluding that the EPA's reliance on a viability index did not contradict the plain language of § 7545(o)(9)(B) because so long as "EPA consults with DOE and considers the 2011 Study and 'other economic factors,' EPA retains substantial discretion to decide how to evaluate hardship petitions." *Hermes*, 787 F.3d at 574–75 (internal citation omitted). The D.C. Circuit also rejected the refinery's *Chevron* step two argument, concluding that the EPA's method of evaluating "'disproportionate economic hardship' is 'based on a permissible construction of the statute.'" *Id.* at 575 (quoting *Chevron*, 467 U.S. at 843). In other words, the court found it reasonable for the EPA to incorporate the methodology from the 2011 DOE study, and the viability matrix in particular, because the statute requires the EPA to consider the findings of the study and "other economic factors" in evaluating hardship petitions. Thus, the court concluded the EPA's choice was within its discretion under *Chevron* step two. *See id.*

In *Lion Oil*, the Eighth Circuit also rejected the refinery's *Chevron* step one argument. The court stated that since the statute does not define "disproportionate economic hardship," and Congress delegated authority to the agency to implement

an ambiguous statute, the court was "'required to accept the agency's statutory interpretation, so long as it is reasonable.'" 792 F.3d at 984 (quoting *Fast v. Applebee's Int'l, Inc.*, 638 F.3d 872, 876 (8th Cir. 2011). The Eighth Circuit concluded that the EPA's choice to measure "hardship" by examining the refinery's viability in the long run was within the agency's discretion, and was thus reasonable. *Id.*

But these cases are distinguishable. As an initial matter, neither the D.C. Circuit nor the Eighth Circuit considered whether *Mead* should control its interpretation of the statute; instead, both courts assumed that *Chevron* applied. Regardless, as we explained above, *Mead* instructs us that *Skidmore* deference is the appropriate standard of review to apply to an informal adjudication that does not carry "the force of law."

The petitioner in *Hermes* argued that mere "[c]onsideration of a viability index" was "inconsistent with [the EPA's] statutory mandate." 787 F.3d at 574. In other words, the EPA could not consider a refinery's viability *at all*, even if viability was considered along with a host of other economic factors. The D.C. Circuit properly rejected that argument. The statutory scheme does not prohibit the EPA from considering viability as a factor. But as we explained above, when the EPA makes long-term viability the *necessary*, if not the sole, factor—refusing to grant an exemption unless there is a threat to a refinery's long-term viability—it renders an interpretation outside the bounds of permissible statutory choice.

As for *Lion Oil*, the Eighth Circuit's decision does not make clear whether the petitioner argued it was impermissible for the EPA to consider viability as *a factor* in its analysis (as in *Hermes*) or as the *sole factor* in its analysis (as in this case). *See* 792 F.3d at 984. Either way, we are unpersuaded. If the former, our analysis of *Hermes* applies. If the latter, *Lion Oil* improperly interpreted *Hermes* as rejecting the EPA's use of viability as the sole factor in its "disproportionate economic hardship" analysis before relying entirely on the D.C. Circuit's reasoning. *See id.* Consequently, we are unpersuaded by the court's analysis in *Lion Oil*.

Mead instructs us to defer to agency interpretations of a statute only to the extent those decisions have the "power to persuade." 533 U.S. at 220. Since our textual and contextual analyses demonstrate that the EPA's interpretation of § 7545(o)(9)(B) is contrary to the meaning and purpose of the statute, the EPA has failed to persuade us here.

III. Conclusion

By reading a necessary "viability" requirement into its statutory directive to evaluate a refinery's petition for exemption from the RFS program based on "disproportionate economic hardship," the EPA exceeded its statutory authority. We therefore GRANT Sinclair's petition for review, VACATE the EPA's decisions for Sinclair's two Wyoming refineries, and REMAND for further proceedings consistent with this opinion.

Sinclair's June 24, 2016 motion to seal the docketing statement and agency decision documents and its September 9, 2016 motion to seal all the briefs and the joint deferred appendix are GRANTED.

16-9532, Sinclair Wyoming Refining Co. v. United States Environmental Protection Agency
LUCERO, J., dissenting.

My majority colleagues predicate their opinion on the premise that the Environmental Protection Agency ("EPA") has impermissibly adopted a test under which a refinery can demonstrate disproportionate economic hardship only upon a showing of an existential threat to ongoing operations. Whether that presumed test would pass muster may present an interesting question, but it is quite academic to the real issue before us. Assuredly, the EPA decisions include a regrettably inartful sentence—a partial quote from the 2011 Small Refinery Exemption Study issued by the Department of Energy (the "Department"). However, when construed as a whole, those decisions demonstrate that EPA applies a more nuanced analysis. Rather than adopting a one-factor test looking solely to whether a shutdown is likely, it seems clear to me that EPA is applying the three-pronged "viability metrics" developed by the Department. Under those standards, a refinery can establish economic hardship under four different circumstances, only one of which requires a threat of shutdown. Because the majority proceeds on a misconstruction of the EPA analysis, I must respectfully dissent.

I

In its decisions in this case, EPA discussed the Department's study at length.[1] It quotes the Department's determination that "[d]isproportionate economic hardship must encompass two broad components: [1] a high cost of compliance relative to the industry

[1] There are two EPA decisions at issue, one denying an exemption to the Sinclair Wyoming Refinery and one denying an exemption to the Sinclair Casper Refinery. This dissent quotes from the former decision, but the latter is identical in all material respects.

average, and [2] an effect sufficient to cause a significant impairment of the refinery operations." EPA explained that it asked the Department "to evaluate all of the information EPA receives from each petitioner" because the Department "has expertise in evaluating economic conditions at U.S. refineries, which it used in developing an assessment process for identifying when 'disproportionate economic hardship' exists in the context of the [Renewable Fuel Standard ("RFS")] program."

In resolving the two components of cost and sufficiency of the effect, the Department considers numerous factors which are grouped into two categories—structural and viability. In assessing "disproportionate structural impacts," the Department scores a refinery on eight metrics: percentage of diesel production, access to capital/credit, availability of other cash flows, local market, state regulation, relative refining margin, blending capability, and niche market. Under the "viability" category, the Department considers three metrics: whether compliance costs "would reduce the profitability of the firm enough to impair future efficiency improvements"; "[r]efinery specific events (such as a shutdown due to an accident, and subsequent loss of revenue) in the recent past that have a temporary negative impact on the ability of the refinery to comply"; and whether compliance costs are "likely to lead to shut down." Each metric is scored either 0, 5, or 10. Subtotal scores for the structural and viability categories are then averaged and divided by 2. The Department's study determined that an exemption would be warranted only if a refinery had an overall score of 1 or higher in both categories. For the viability category, a refinery can qualify with a score of 10 on any

single metric, or with an intermediate score of 5 on both the efficiency and specific event metrics.

After providing background information on Sinclair Wyoming Refinery's operations, the EPA decision reproduces the Department's scoring matrix for the facility. That metric calculated a score of 1.6 on the structural impact category, and 0 for the viability category. Then, EPA evaluated "viability using the metrics considered by [the Department] in its viability index: (a) compliance costs eliminate efficiency gains (impairment); (b) individual special events; and (c) compliance costs likely to lead to shut down." Considering the Department's score of zero on all three viability factors, EPA concluded that Sinclair Wyoming Refinery "remains fully able to comply with its 2014 RFS obligations without causing a significant impairment of the refinery's operations," and thus compliance would not threaten its "viability." EPA specifically considered Sinclair's argument that a fire at the refinery caused a large one-time loss—an argument clearly directed toward the specific event metric. And it discussed the RFS program's impact on efficiency gains as relevant to the first metric.

The majority opinion does not consider this lengthy discussion. If it had, it would be abundantly clear that EPA considers all three of the Department's viability factors. Importantly, a refinery can qualify for an exemption under the Department's matrix without showing that compliance costs would lead to a shutdown. Rather than considering EPA's nuanced approach, the majority opinion focuses on the statement that a refinery must show that compliance costs would "significantly impact the operation of the firm, leading eventually to an inability to increase efficiency to remain competitive,

eventually resulting in closure." (Majority Op. 18.) Read in context, that statement does not support the assertion that EPA applies a single-factor test under which a refinery must show a shutdown is likely.[2]

The statement at issue is a direct quote from the Department's Small Refinery Exemption Study. In describing its three viability metrics, the Department explained that the term "viability refers to the ability of the refiners to remain competitive and profitable," which "requires sufficient profits to make investments in the refinery." That statement quoted by EPA explains that "under some circumstances, a small refinery may face compliance costs that would significantly impact the operation of the firm, leading eventually to an inability to increase efficiency to remain competitive, eventually resulting in closure." Read together with the Department's explanation of the metrics, the quoted passage shows that eventual closure is not required. Refineries may receive points under the efficiency metric because "significant constraints on efficiency improvements would eventually leave many small refineries at risk." And the individual special events metric is specifically aimed to provide relief to refineries that have

[2] As the majority notes, EPA's brief repeats this statement in a footnote. (Majority Op. 18 n.5.) But as with the decisions at issue, the statement must be read in context. EPA's brief strenuously rejects the reading of its decisions urged by Sinclair and adopted by the majority. After quoting Sinclair's argument that a refinery must demonstrate that RFS compliance "will eventually force a small refinery to shut down," EPA states: "This is not an accurate characterization of EPA's interpretation because it gives the incorrect impression that the Agency will grant the exemption only if it concludes that the refinery will have to close if it has to comply with its RFS requirements." (Resp't Br. 40.) Instead, consistent with its decisions, EPA explains that "[t]he viability factor addresses three types of metrics that could impact long-term competitiveness, none of which necessarily would cause a closure of the facility in the near term." (Id. at 38-39.)

suffered incidents causing "a temporary negative impact on the ability of the refinery to comply with the RFS."

In discussing "viability" in the challenged decisions, EPA is referring to all three metrics—not just the possibility of refinery closure. The majority opinion's reliance on the ordinary usage definition of "viability," and its claim that EPA ignored the first two of the Department's viability metrics, (Majority Op. 21, 22), cannot be squared with the text of the challenged decisions. Those decisions unequivocally state that EPA "evaluates viability using the metrics considered by [the Department] in its viability index: (a) compliance costs eliminate efficiency gains (impairment); (b) individual special events; and (c) compliance costs likely to lead to shut down." Therefore, the appropriate question in reviewing the decisions at issue is whether that multi-factor analysis is consistent with the statute.

II

Regardless of the standard of review applied, EPA's adoption of the Department's three-part viability test should be upheld. See Edelman v. Lynchburg Coll., 535 U.S. 106, 114 n.8 (2002) ("[T]here is no need to resolve deference issues when there is no need for deference."). Congress specifically directed EPA to consider the findings of the Department's Small Refinery Exemption Study. 42 U.S.C. § 7545(o)(9)(B)(ii). Consistent with the Congressional directive, that study created the viability standard actually being applied by EPA.

Consideration of a refinery's overall health makes sense in light of the statute's use of the term "hardship." § 7545(o)(9)(B)(i). As the EPA decision notes, a refinery

must show it "faces a 'disproportionate economic hardship' from compliance, and not merely an economic impact." A refinery that spends $5 million per year to meet its RFS obligations and suffers net annual operating losses of $1 million per year would experience more of a "hardship" than a refinery that spends $10 million per year on RFS compliance but nevertheless operates at a profit.

In an "Explanatory Statement" contained in the 2016 Consolidated Appropriations Act, Congress directed the Department to recommend a 50% waiver for refineries that score above 1 on the Department's matrix for either the viability or structural impact categories. See Consolidated Appropriations Act, 2016, Pub. L. No. 114-113, 129 Stat. 2242 (2015). Because that statement did not amend the statute, it should have little bearing on our analysis of the statutory text. See Bruesewitz v. Wyeth LLC, 562 U.S. 223, 242 (2011) ("Post-enactment legislative history (a contradiction in terms) is not a legitimate tool of statutory interpretation."). As EPA explained, despite the appropriations rider, the agency "remains constrained by the plain governing statutory language that limits exemption extensions to small refineries that experience a 'disproportionate economic hardship.'" Moreover, as noted by EPA, "a refinery could satisfy the nonviability metrics as a result of primarily refining diesel and not having other lines of business, regardless of how profitable the refinery was or what the impact of compliance with the RFS would be on the refinery." I agree that "it would [not] be appropriate to grant even a 50% waiver for 'disproportionate economic hardship' in these circumstances without some further consideration of whether compliance with the RFS would actually cause such a hardship."

Finally, reliance on the Department's study necessarily incorporates a disproportionality element. That study applied the Department's metrics to a broad cross-section of small refineries and found thirteen qualified for an exemption. Under that matrix, Sinclair's refineries do not qualify for an exemption for compliance year 2014. Even if the Department was required to depart from the study's findings due to an appropriations act requirement, EPA followed the statute when it relied on the Department's study in making these evaluations. The agency was mandated to consider both the study and the Department's recommendation. § 7545(o)(9)(B)(ii).

Two other circuits have approved EPA's approach. See Lion Oil Co. v. EPA, 792 F.3d 978 (8th Cir. 2015); Hermes Consol., LLC v. EPA, 787 F.3d 568 (D.C. Cir. 2015). Hoping to avoid a circuit split, my majority colleagues unconvincingly attempt to distinguish these cases. They characterize both as having decided, unlike this case, whether EPA can consider viability as a factor, rather than the only factor. (Majority Op. 25-26.) As explained above, the majority's framing misstates what EPA did in the present case. The majority opinion also dismisses the cases claiming that those courts did not consider the appropriate degree of deference. But both decisions speak favorably of using viability as a factor. See Lion Oil, 792 F.3d at 984 ("Of course, some refineries will face higher costs than others, but whether those costs impose disproportionate hardship on a given refinery presents a different question" and EPA reasonably concluded "that the best way to measure 'hardship' entail[s] examining the impact of compliance costs on a refinery's ability to maintain profitability and competitiveness—i.e., viability—in the long term." (quotation omitted)); Hermes, 787 F.3d at 575 (same).

I would uphold, as well, EPA's consideration of viability as described in the Department's Small Refinery Exemption Study.

Biotechnology Innovation Organization

The Myth of High RIN Prices as Proof of the Blend Wall

- **Data recently released by EPA challenges conventional wisdom that the so-called blend wall caused RIN prices to rise in 2013.**
- **Refiners and importers blended ethanol into obligated gasoline volumes beyond the 10 percent limit as early as 2010.**
- **Refiners' and importers' use of compliance flexibility reveals they did not experience RIN shortages at any point.**
- **EPA's rulemaking delays and unwarranted changes to the RFS based on blend wall assumptions harmed biofuel producers while providing obligated parties relief from a problem that didn't exist.**

In 2007, Congress updated the Renewable Fuel Standard (RFS) and set a statutory schedule for annual increases in production and use of biofuels to reach 36 billion gallons in 2022. The 36 billion gallon volume set by Congress was projected to be 20 percent of transportation fuel use by 2022. The so-called blend wall is a theoretical 10 percent limit on the amount of ethanol that can be blended into gasoline in the United States, purportedly due to infrastructure and market constraints. While the RFS does not require ethanol use – other biofuels can be used to reach the 36 billion gallon goal – stakeholders understood from the start that the program would require new infrastructure and market changes to overcome the predicted constraints.

A seminal 2012 paper from researchers at the Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri predicted that when fuel refiners encountered the 10 percent limit on blending, they would experience a shortage of RFS compliance credits – known as Renewable Identification Numbers (RINs) – and

see a sharp increase in compliance costs.[1] The FAPRI authors developed an accounting model comparing the congressionally established fuel volumes to the number of available RINs; they then projected that the 10 percent blend wall limit would be unavoidable by 2015. It has subsequently become widely accepted that dramatic spikes in spot market RIN prices in 2013 provided direct evidence that U.S. fuel refiners and importers had reached the 10 percent blend wall.[2,3]

The U.S. Environmental Protection Agency (EPA) delayed issuing annual rules and postponed RFS compliance deadlines for refiners and importers in 2013, 2014, 2015 and 2016 as it considered the impact of the RIN price spikes and the post hoc conclusion that U.S. refiners had encountered the blend wall. In a multiyear rule issued in November 2015, the agency finalized far-reaching changes to the RFS program in an attempt to relieve U.S. refiners from high RIN prices and presumed RIN shortages.[4,5]

Data recently released by EPA in response to a Freedom of Information Act (FOIA) request enables an accurate accounting of how obligated parties achieved RFS compliance from 2010 through 2015, using available RINs and alternate compliance flexibilities.[6] A true accounting of RINs and other compliance options demonstrates that refiners and importers reached the 10 percent blending limit as early as 2010 and definitely surpassed it in 2012. At no point in time did refiners and importers experience an aggregate shortage of RINs as the FAPRI paper predicted. Contrary

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[1] Thompson, W. et al. (2012) "A Question Worth Billions: Why Isn't the Conventional RIN Price Higher?" Columbia, MO: Food and Agricultural Policy Research Institute. FAPRI-MU Report #12-12.
[2] Stock, J.H. (2015) "The Renewable Fuel Standard: A Path Forward." New York: Columbia University School of International and Public Affairs and Center on Global Energy Policy.
[3] Knittel, C.R. et al. (2015) "The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard." Cambridge, MA: Center for Energy and Environmental Policy Research, Massachusetts Institute of Technology.
[4] 80 Fed. Reg. (77428-29), Monday, Dec. 14, 2015.
[5] Letter from Byron J. Bunker, Director, Compliance Division, Office of Transportation and Air Quality, USEPA to Paul Winters, BIO. "RE: Freedom of Information Act request EPA-HQ-2015-004861." Aug. 8, 2016. https://foiaonline.regulations.gov/foia/action/public/view/request?objectId=090004d2805fef3f.
[6] EPA. (2016) "Annual Compliance Data for Obligated Parties and Renewable Fuel Exporters under the Renewable Fuel Standard (RFS) Program." https://www.epa.gov/fuels-registration-reporting-and-compliance-help/annual-compliance-data-obligated-parties-and.

to the commonly accepted interpretation, the 2013 rise in spot market RIN prices cannot be explained as a consequence of either the so-called blend wall or a shortage of RINs. Further, EPA's actions have had no impact on RIN supplies or prices. EPA should therefore reverse the changes it made to the RFS program.

An abundance of compliance options

Under the RFS, petroleum refiners and importers are assigned an annual Renewable Volume Obligation (RVO), indicating the percentage of their refined or imported fuel that must be renewable in order to meet the congressionally set schedule for production and use of biofuels. Entities incurring an RVO are referred to as obligated parties. RINs are the compliance credits generated under the RFS program that obligated parties use to demonstrate compliance with their annual RVOs. EPA establishes the percentage RVOs on an annual basis by dividing the congressionally set schedule by the amount of U.S. fuel consumption projected for the year by the U.S. Energy Information Administration (EIA).

Obligated parties are assigned four distinct RVOs each year – for cellulosic biofuel, biomass-based diesel (BBD), advanced biofuel and conventional biofuel – and they must retire sufficient eligible and valid RINs to satisfy each. RVOs are nested; e.g., RINs retired to meet the cellulosic or the BBD RVO also concurrently satisfy the advanced and overall RVO.

In establishing regulations for the RFS program, EPA provided obligated parties flexibility in complying with annual RVOs. As directed by Congress, the agency established the RIN system under the RFS to provide credits for refiners and importers who use more renewable fuel than required. As with other fuel regulations under the Clean Air Act, RFS RINs also equalize the compliance burden among obligated parties. Equalization of the compliance burden enables obligated parties who exceed their individual requirements to transfer (or sell) credits to those who fall short of the obligations.

EPA established different RIN codes (D3 – D7) to distinguish the various categories of biofuels eligible to meet the nested RVOs. EPA publishes separate data on RINs

generated by type of fuel produced; however, the agency does not report or publish data on the type of fuel associated with RINs retired to meet obligations.

Per the statute, RINs are valid to meet annual RVOs for one year from the date they are generated. EPA's regulations enable individual obligated parties to meet up to 20 percent of an annual RVO using "carryover RINs," which are excess RINs generated in the preceding year. RINs that are not used to satisfy an RVO in the year they are generated or the subsequent year expire unused.

EPA regulations, as directed by Congress, also allow individual obligated parties to carry forward a deficit in an annual RVO, essentially deferring all or part of that RVO to the following year. The statute and regulations specify, though, that the individual obligated party must satisfy the full "deficit carryforward" in the subsequent year along with the annual RVO; an individual obligated party may not have a deficit carryforward in the same RVO two years in a row. **The deficit carryforward provision creates a more stringent obligation for obligated parties; its use provides the clearest indication of relative difficulty in meeting the annual RVOs.**

The regulations ensure that the congressionally established volumes of renewable fuels are used within the United States. The compliance options allow obligated parties some flexibility from year to year, but are designed to ensure that any shortfall in using renewable fuels is made up quickly.

Calculating the ethanol obligation arising from the RVOs and the 10 percent limit

Obligated parties must meet their annual RVOs by using the renewable fuel that is produced and available in the market. Ethanol and biomass-based diesel (both biodiesel and renewable diesel) are the most common types of renewable fuel available. For this study, the relative amount of available ethanol and biomass-based diesel RINs used for compliance is approximated by examining EPA data on

the annual generation of RINs by type of biofuel produced.[7] **Nearly all D6 RINs and a large majority of D5 RINs generated from 2010 to 2015 represent ethanol production, which must be blended into the gasoline supply**; ethanol is not blended into diesel fuel. There are deviations from this general trend. For instance, in 2015 nearly 3 percent of D6 RINs were assigned to fuels other than ethanol. And in 2010, nearly 86 percent of D5 RINs generated were for biomass-based diesel.

Both gasoline and diesel are obligated fuels under the RFS. The actual obligated fuel volumes reported by obligated parties are shown in Table 1. **The volume of obligated gasoline use is approximately 70 percent of the reported volumes each year.** EIA reports minor variations in the balance of gasoline and diesel consumption each year, so these relative annual percentages are applied to the reported obligated volumes to estimate obligated gasoline volume. The assumed ethanol blending limit is estimated as 10 percent of annual obligated gasoline volumes.

Table 1: Assumed Blend Wall Limit for RFS Renewable Volume Obligations, 2010-2015 (million gallons)

	2010	2011	2012	2013	2014	2015
Obligated fuel volume	153,191	169,402	166,590	172,985	177,080	180,243
Gasoline ratio of obligated fuel	0.7	0.69	0.7	0.7	0.69	0.7
Estimated obligated gasoline volume	107,988	117,609	116,414	121,453	122,865	126,323
Estimated 10% ethanol blending limit	10,799	11,761	11,641	12,145	12,287	12,632

[7] U.S. EPA. (2016) Renewable Identification Number (RIN) Data for Renewable Fuel Standard Program. https://www.epa.gov/renewable-fuel-standard-program/renewable-identification-number-rin-data-renewable-fuel-standard.

The actual obligated fuel volumes reported by EPA are substantially different from the volumes of gasoline and diesel consumption reported by EIA, highlighting the fact that **small refiners and small refineries (even those owned by large refiners) were exempted from the RFS program through 2012.** In setting the 2010 RVOs, EPA reduced EIA's estimate of U.S. fuel production by 13.5 percent, while providing 59 small refineries (processing less than 75,000 barrels of crude per day) and small refiners (employing 1,500 or fewer people) exemption from the obligations.[8,9] In 2011, EPA ended the exemption for small refiners, but granted hardship exemptions to three small refineries that petitioned the agency.[10] Then in 2012, in response to a Department of Energy study ordered by Congress, EPA reinstated the exemption for 21 small U.S. refineries and retroactively applied it to the 2011 RVOs, prior to compliance deadlines. EPA adjusted the EIA estimates of fuel use for those years by approximately 3.6 percent of the gasoline pool and 4.5 percent of the diesel pool.[11] EPA granted a single exemption to a small refinery in 2013.[12] EPA recently published aggregate volumes of gasoline and diesel produced by small refineries that are exempt from the program for each year 2011 - 2015.[13]

Final annual RVOs are calculated as both a percentage of the current year's obligated volumes plus any deficit carryforward volume from prior years. Obligated parties used the deficit carryforward provision most heavily in 2010, indicating relative difficulty as the updated rules and higher volume requirements came into effect. They carried forward approximately 13.5 percent of the 2010 BBD RVO and 24.6 percent of the advanced RVO as a deficit and added these volumes to the 2011 RVO. By comparison, they carried forward less than 1.3 percent of the 2010 overall RVO as a deficit. **Obligated parties have used the deficit carryforward**

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[8] 72 Fed. Reg. (23911), Tuesday, May 1, 2007.
[9] 75 Fed. Reg. (14735-14737), Friday, March 26, 2010.
[10] 75 Fed. Reg. (76805), Thursday, Dec. 9, 2010.
[11] 77 Fed. Reg. (1223, 1340), Monday, Jan. 9, 2012. Cf. "Small Refinery Exemption Study: An Investigation into Disproportionate Economic Hardship," U.S. Department of Energy, March 2011.
[12] 78 Fed. Reg. (49825), Thursday, Aug. 15, 2013.
[13] Korotney, D. "Comparison of availability of RINs and standards for previous years." Memorandum to EPA Air Docket EPA-HQ-OAR-2016-0004-3746, Nov. 18, 2016 (posted Dec. 12, 2016, https://www.regulations.gov/document?D=EPA-HQ-OAR-2016-0004-3746).

provision sparingly each year since, suggesting relative ease in meeting the annual RVOs. In 2011, they carried forward about 3.4 percent of the BBD RVO and added that volume to the 2012 RVO. They carried forward less than 2.7 percent of the advanced RVO and less than 0.5 percent of the overall RVO in that same year. Since 2011, obligated parties have carried forward less than 1 percent of each annual RVO as a deficit.

Table 2: Calculation of Annual RVOs Considering Deficit Carryforwards

	2010	2011	2012	2013	2014	2015
Annual overall RVO	12,638,293,110	13,576,733,859	15,380,846,391	16,847,826,477	16,274,578,876	17,159,129,553
Annual advanced RVO	934,467,733	1,322,078,953	2,016,340,643	2,802,157,305	2,674,060,294	2,919,935,911
Annual BBD RVO	1,685,124,090	1,169,542,497	1,516,421,475	1,954,598,102	2,496,970,208	2,685,620,067
Annual cellulosic RVO	6,182,591			864,865	33,647,116	124,367,641
Overall deficit carryforward	163,353,609	71,361,964	78,064,351	59,843,695	160,091,803	12,724,461
Advanced deficit carryforward	229,693,190	39,793,950	23,212,163	18,717,611	14,852,674	9,600,652
BBD deficit carryforward	227,120,812	44,899,618	22,891,875	15,671,598	13,234,484	9,429,196
Cellulosic deficit carryforward	31,453			31	7,722	0
Final overall RVO	12,474,939,501	13,668,725,504	15,374,144,004	16,866,047,133	16,174,330,768	17,306,496,895
Final advanced RVO	704,774,543	1,511,978,193	2,032,922,430	2,806,651,857	2,677,925,231	2,925,187,933
Final BBD RVO	1,458,003,278	1,351,763,691	1,538,429,218	1,961,818,379	2,499,407,322	2,689,425,355
Final cellulosic RVO	6,151,048			864,834	33,639,425	124,375,363
Percent ethanol in conventional biofuel	99.7	100	100	98.1	97.7	96.9
Percent ethanol in advanced biofuel	14.1	85.3	96.7	86.7	86.0	92.4
"Ethanol RVO"	11,734,217,271	12,287,824,563	13,818,144,012	14,527,157,027	13,332,980,194	14,160,363,837

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Percent of obligated gasoline	10.9	10.4	11.9	12	10.9	11.2

The total annual RVOs for 2010 – 2015 are shown in Table 2 above. The final RVOs are calculated by subtracting each RVO deficit from the current year and adding it to the appropriate RVO in the following year. Note that the statute adopted by Congress included 2009 obligations for the biomass-based diesel and advanced RVOs; however, EPA did not finalize the regulations until 2010. EPA therefore set a BBD RVO in 2010 that included the 2009 obligation. Cellulosic RVOs for 2011 and 2012 were set to zero, so the cellulosic RVOs for 2011 remains zero despite the deficit carryforward from 2010.

The amount of the annual RVOs required to be met with available ethanol – the "ethanol RVO" – is estimated in Table 2 by adding the conventional, non-advanced biofuel portion of the overall RVO and the portion of the undifferentiated advanced RVO that is not biomass-based diesel. The formula for calculating this "ethanol RVO" is represented in Figure 1.

Figure 1: "Ethanol RVO" equation

	Portion of non-advanced overall RVO met with ethanol				Portion of undifferentiated advanced RVO met by ethanol			
"Ethanol RVO" =	((Final overall RVO	- Final advanced RVO)	x Percent ethanol in conventional biofuel)	+	((Final advanced RVO	- Final BBD RVO)	x Percent ethanol in advanced biofuel)	

Comparing the "ethanol RVO" in Table 2 to the estimated blend wall in Table 1 illustrates the fact that **the amount of ethanol obligated parties were required to blend into the gasoline they produced was already above 10 percent by 2010**. In 2012 and 2013 the "ethanol RVO" was close to 12 percent. The straightforward economic theory put forward by the FAPRI authors predicted that a requirement to use ethanol above the 10 blending limit would result in a shortage of RINs, which would cause prices to rise. **The data shows that the "ethanol RVO" was no more difficult for obligated parties to meet in 2013 than in**

2012, since the relative percentages were nearly identical. This accounting dispels the post hoc supposition that the spot market RIN price spikes in 2013 signaled that the blend wall had arrived. It also becomes clear that EPA's rulemaking delays in 2014 and 2015 and its eventual changes to the program had no impact on reducing the "ethanol RVO" below the theoretical 10 percent blending limit; the "ethanol RVO" remains at approximately 11 percent for each of those years.[14]

Did refiners use carryover RINs to avoid hitting the blend wall?

The FAPRI authors also tested a hypothesis that obligated parties could use carryover RINs to limit blending of ethanol in any current year and thereby delay arrival of the blend wall. Under this hypothesis, obligated parties would use as many carryover RINs as possible, up to the allowable 20 percent, to meet each annual RVO and thereby keep actual ethanol blending below 10 percent. **The FAPRI authors concluded that this strategy could only be effective for a few years, potentially delaying arrival of the blend wall until 2015.**

The data recently released by EPA demonstrate that obligated parties did not employ this strategy – in fact, their use of carryforward deficits from 2010 to 2011 prevented the strategy. Table 3 below presents the numbers of 2010 – 2014 RINs carried over and retired to meet the 2011 – 2015 final RVOs, calculated in Table 2. The percentage of the annual RVOs that obligated refiners and importers met with carryover RINs and the numbers of prior year RINs that expired unused, after the annual final RVO was met, are also presented.

EPA does not provide data on carryover RINs in 2010, because these RINs were generated under the RFS program established by law in 2005 (RFS1). RFS1 was in effect through June 2010, when the updated regulations and schedule of volumes

[14] As made clear in the newly provided data from EPA, fuel exporters incur a separate RVO if they export RIN-bearing biofuels. The current year and carryover RINs retired by exporters are excluded from the current analysis, because they are not relevant to the blend wall, which is a purported structural limit on U.S. fuel supplies. Deficit carryforwards are not permitted for export RVOs under the RFS rules (at CFR §80.1427(c)).

from the 2007 law came into effect. Because the reported 2010 BBD RVO also included 2009 volumes, EPA established additional options for obligated parties to meet it, including use of RFS1 RINs. Obligated parties met less than 5 percent of the 2011 BBD and advanced RVOs with carryover 2010 RINs. Comparatively, they met nearly 17 percent of the overall 2011 RVO with carryover 2010 RINs. Obligated refiners and importers apparently met a small portion of the 2011 RVOs with 2010 vintage RFS1 RINs.

Table 3: Carryover RINs Retired by Obligated Refiners and Importers, 2011-2015

	2011	2012	2013	2014	2015
D6 RINs carried over	2,241,455,041	3,169,954,134	2,087,485,067	1,072,234,550	1,344,958,404
D5 RINs carried over	3,580,101	50,801,949	165,030,837	42,792,927	54,592,739
D4 RINs carried over	57,368,904	277,937,240	248,305,050	495,434,195	385,161,902
Percent of final overall RVO met with carryover RINs.	16.8	22.8	14.8	10	10.4
Percent of final advanced RVO met with carryover RINs	4	16.2	14.7	20.1	15.4
Percent of final BBD RVO met with carryover RINs	4.2	18.1	12.7	19.8	14.3
Prior year D6 RINs expired unused	426,649,448	469,306,771	11,935,021	4,119,459	7,470,105
Prior year D5 RINs expired unused	56,433	2,688,287	1,407,742	284,326	803,328
Prior year D4 RINs expired unused	2,755,307	23,115,151	2,514,278	2,051,990	6,288,064

Obligated refiners and importers did not use the maximum allowable number of carryover RINs to meet any RVO prior to 2014, with the singular exception of the overall RVO in 2012. The data shows that obligated parties met 22.8 percent of the 2012 overall RVO with carryover RINs.[15] At the same time, nearly a half billion 2011 vintage RINs expired unused. In fact, the number of 2011 vintage D6 RINs that expired unused in 2012 is considerable in comparison to the numbers carried over to meet the overall RVO (a ratio of approximately 15 percent).

Further, even as obligated parties employed the deficit carryforward provision in 2010, nearly a half billion available 2010 vintage RINs expired unused. Most of the expired unused RINs were D6 RINs from ethanol – more than 6 percent of D6 RINs generated in 2010 and nearly 3.5 percent of D6 RINs generated in 2011 expired unused.

Obligated parties may have belatedly used the carryover RIN provision to maximum effect in 2012, but it did not delay arrival of the so-called blend wall. In 2012, obligated parties met 18 percent of the BBD RVO and 16.1 percent of the advanced RVO with carryover RINs. A relatively significant number of potential 2011 carryover RINs still expired unused, and obligated parties carried forward deficits into 2013. In 2013, use of carryover RINs declined as a percentage of the annual RVOs from 2012. Obligated parties met less than 15 percent of each annual 2013 RVO with carryover RINs. At the same time, very few 2012 vintage RINs expired unused, but deficit carryforwards decreased in that year.

Use of carryover RINs for the 2014 BBD and advanced RVOs increased to the maximum allowable, but use for the overall RVO continued to decline in 2014. In 2014, refiners and importers used the maximum allowable 20 percent carryover RINs in both the advanced RVO and the biomass-based diesel RVO; however, they met the overall RVO with only 10 percent carryover RINs, while at the same time carrying forward a larger deficit than in 2013. The 2014 deficit was 0.9 percent of the overall obligation, compared to 0.5 percent in 2013. A small number of available 2013 vintage carryover RINs expired unused. And in 2015, refiners and

[15] See also, Appendix Table A2.

importers met approximately 15 percent of each annual RVO with carryover RINs from 2014. Concurrently, there was a slight increase in the numbers of 2014 RINs expiring unused; but only small deficit carryforwards – less than a tenth of 1 percent for the overall RVO – have been reported for 2015.

It is clear that obligated parties did not employ an active strategy to use carryover RINs to delay the blend wall, at least at an aggregate, multiyear level. At the same time, there was no shortage of RINs during 2013 that could explain the spikes in RIN prices. The relatively small numbers of 2012 and 2013 RINs expiring unused and the declining use of carryover RINs in 2013 and 2014 RVOs – information not available to the market until recently – would not have signaled a shortage to the market for several reasons. They were impacted by deficits carried forward during those years and because the aggregate availability of RINs for 2013 and 2014 would not have become apparent until 2016, since EPA delayed all compliance deadlines for years after 2012.

Did obligated parties encounter a shortage of RINs?

The FAPRI authors theorized that refiners' and importers' inability to blend ethanol into obligated gasoline volumes beyond the theoretical 10 percent limit would cause a shortage of RINs, leading to increased RIN prices. **EPA's newly released data reveals that the amount of ethanol blended into obligated volumes of gasoline clearly exceeded 10 percent by 2011.**

RINs separated in any given year (whether retired, expired or carried over to the following year) represent biofuel blended into transportation fuel. Table 4 below presents a calculation of all D6 and D5 RINs separated from ethanol each year that were eventually retired, carried over, or expired unused. The ratio of RINs generated from ethanol gallons is applied to those retired, carried over and expired unused.[16]

[16] It could be the case that all D5 and D6 RINs that expired unused were separated from ethanol (and conversely, it could be the case that those RINs retired were from biomass-based diesel). Regardless, RINs that expired unused still represent ethanol blended into the

Table 4: Ethanol RINs Used 2010-2015[17]

Current Year RINs	2010	2011	2012	2013	2014	2015
D6 RINs retired	3,838,694,623	9,184,154,593	10,555,225,166	11,923,667,579	12,338,731,449	13,017,455,991
D6 RINs carried over	2,241,455,041	3,169,954,134	2,087,485,067	1,072,234,550	1,344,958,404	
D6 RINs expired unused	426,649,448	469,306,771	11,935,021	4,119,459	7,470,105	
D5 RINs retired	24,808,442	170,668,757	430,685,359	507,813,089	87,981,874	46,685,808
D5 RINs carried over	3,580,101	50,801,949	165,030,837	42,792,927	54,592,739	
D5 RINs expired unused	56,433	2,688,287	1,407,742	284,326	803,328	
Percent ethanol in D5 RINs	14.1	85.3	96.7	86.7	86.0	92.4
Total ethanol RINs used	6,492,838,486	13,008,731,909	13,230,849,241	13,232,833,443	13,834,537,899	13,064,141,799
Percent ethanol in obligated gasoline volumes	6	11.1	11.4	10.9	11.3	10.3

Some of the ethanol used during 2010, 2011 and 2012 (and through 2015) was almost certainly blended into gasoline produced by small refiners and small refineries that were exempt from RFS2 obligations. Splash blending ethanol into the unobligated volumes of gasoline therefore could have provided obligated refiners and importers some relief from the assumed blend wall. Small refiners and small

transportation fuel supply. Further, eliminating expired unused RINs from the calculation would lower the rate of ethanol blended by only a few tenths of a percent, remaining above the 10 percent level.

[17] The number of ethanol RINs retired, carried over or expired unused in 2010 appears to be below the assumed blend wall limit because the data is incomplete. EPA does not provide RIN data from the RFS1 program, which was in effect through June 2010. But only gasoline volumes were obligated under RFS1; therefore, it is more likely that the RINs carried over from RFS1 to meet 2010 RVOs represented ethanol instead of biodiesel. And therefore the proportion of ethanol used to satisfy fuel obligations likely exceeded 10 percent as early as 2010.

refineries were allowed to separate RINs from renewable fuels under CFR §80.1429(b)(8).

However, remaining obligated parties still would have had to purchase the separated RINs, if they were unable to blend more than 10 percent ethanol into the fuels they produced. This path of relief from the assumed 10 percent limit would therefore have presented a potential cost for obligated parties in meeting obligations between 2010 and 2012. **Although the aggregate volumes of gasoline and diesel produced by small refiners and refineries exempted from the program are considerable, they are not sufficient to lower the "ethanol RVO" or ethanol usage below 10 percent of the gasoline supply in any year.** Table 5 below presents the aggregate volumes of exempt fuel reported by EPA, a recalculated blend wall number, and the percent of obligated gasoline plus exempt gasoline required to be ethanol, with the "ethanol RVO" calculation from Table 1 unchanged. The "ethanol RVO" reaches well above 11 percent by 2012.

Table 5: Recalculated Assumed Blend Wall and "Ethanol RVO", Considering Exempt Gasoline Available for Blending

	2011	2012	2013	2014	2015
Exempt volume of gasoline and diesel	8,610,000,000	8,498,000,000	1,278,000,000	650,000,000	539,000,000
Estimated 10% blend wall	12,358,616,320	12,235,229,803	12,235,065,946	12,331,598,283	12,670,057,529
"Ethanol RVO" as percent of obligated and exempt gasoline	9.9	11.3	11.9	10.8	11.2

Under the economic theory put forward by FAPRI, a shortage of RINs should have raised prices. **Given that there is little difference between the percentages of ethanol mixed into the gasoline supply from 2011 to 2013, why RIN prices spiked in 2013 rather than earlier remains unexplained.**

EPA delayed issuing the 2013 RVOs until August of that year as it considered the rise in RIN prices, which the agency assumed signaled arrival of the blend wall, and

the potential difficulty for refiners to meet annual RVOs that year. The agency eventually finalized 2013 RVOs at the full statutory volume while delaying the compliance deadline for the year.[18] **The relative ease or difficulty for obligated parties to meet RVOs in 2012 and 2013 was thereby obscured until 2016.** In 2013 the amount of ethanol blended into obligated gasoline volumes remained well above 10 percent.

EPA also delayed issuing the 2014 and 2015 RVOs as it addressed controversy "about how the volumes should be set in light of lower gasoline consumption than had been forecast" in 2007 when Congress initially set the statutory volumes of biofuel. In tying RVO volume-setting to gasoline consumption numbers, EPA was implicitly relying on the blend wall concept.[19] The agency eventually established RVOs for 2014, 2015 and 2016 in a single rule made public in November 2015. In the rule, EPA waived significant volumes from the congressionally set schedule of biofuel production and use for 2014, 2015 and 2016. The agency further argued that it needed to preserve a "bank" of carryover RINs to ensure compliance flexibility for obligated parties.

The numbers of 2014 RINs carried over to meet the 2015 RVOs increased slightly from the preceding year, except for D4 RINs. Obligated parties met 10 percent of their overall 2015 obligation and approximately 15 percent of both the advanced and biomass-based diesel obligations with carryover RINs. The numbers of RINs expected to expire unused also increased slightly. At the same time, **the volume of ethanol blended into obligated volumes of gasoline in 2014 and 2015 once again exceeded 10 percent**, as indicated solely by the numbers of current year RINs retired for 2015 RVO compliance. EPA's data indicates that more than 1.6 billion 2015 vintage RINs remain available.[20] Within those available RINs, a minimum of 1.16 billion represent ethanol blended into the fuel supply, which would exceed 10.3 percent of obligated volumes of gasoline during 2015. The "ethanol

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[18] 79 Fed. Reg. (34242), Monday June 16, 2014; 79 Fed. Reg. (46353), Friday, Aug. 8, 2014.
[19] 79 Fed. Reg. (73007), Tuesday, Dec. 9, 2014.
[20] https://www.epa.gov/fuels-registration-reporting-and-compliance-help/2014-renewable-fuel-standard-data. Oct. 20, 2016.

RVO" calculated in Table 2 estimates the requirement at 11.2 percent for 2015. That gap remains consistent even if exempt gasoline volumes are included, as in Table 5.

EPA delayed establishing 2014 and 2015 RVOs until near the end of 2015. When it did finalize the 2014 RVOs, it set them "based on actual production levels in 2014, possibly suggesting that the 2014 standards we are finalizing are what would have happened in the marketplace absent a rulemaking."[21] Obligated parties blended ethanol into the gasoline supply during 2014 at levels exceeding the assumed 10 percent blending limit ***even without formally set percentage RVOs*** – an outcome that is impossible to reconcile with the theory that the so-called blend wall is a fixed limit that the RFS program cannot overcome except at great cost and lengthy lead times. The 10 percent blending limit was exceeded even when there was a significant pool of non-obligated gasoline volumes produced by small refiners. **It follows that the 10 percent blending level does not present an insurmountable obstacle to U.S. refiners and importers; the so-called blend wall has not created shortages of RINs at any point.**

Implications for Policy

The compliance data made available by EPA refute the assumption that price spikes in spot trading of RINs in 2013 signaled arrival of the so-called blend wall. Aside from the post hoc nature of such an argument, the evidence indicates that the 10 percent blend wall threshold was hit as early as 2010. **Whether looking at the so-called "ethanol RVO" or the number of ethanol RINs used for compliance in any given year, the 10 percent ethanol blending limit was definitively surpassed by 2012.** The requirements for ethanol even potentially eased slightly in 2013, before rising again in 2014. Yet there was no correlated impact on RIN supplies or prices. The so-called blend wall cannot serve as an explanation of the 2013 RIN price spikes, since its arrival should have caused RIN shortages and associated price spikes well before then.

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[21] 80 Fed. Reg. (77487), Monday, Dec. 14, 2015.

The 2013 price spikes in spot market RIN trading remain unexplained. Further research into the actual cause of RIN price spikes is hampered by lack of data on the volumes of RINs traded and actual prices paid for RIN transfers outside the spot market. Publicly available data on RIN volumes traded along with aggregate prices would better inform spot market participants "and may help them to anticipate and avoid market disruptions" or price spikes.[22]

EPA's delays in setting RVOs for 2013, 2014 and 2015 - combined with its changes in the RFS program in the final rule for 2014–2016 - were unwarranted. The agency was incorrect to waive substantial parts of the 2014-2016 statutorily established volume obligations. Moreover, **the agency cannot effectively maintain a "bank" of carryover RINs**, since availability of carryover RINs is impacted by other compliance options available to obligated parties – such as deficit carryforwards – and annually increasing renewable fuel requirements. The FAPRI researchers were careful to point out in their seminal paper that "changing RIN stocks or the volumes of various mandate components might only delay, not prevent the blend wall." Finally, the changes to the rules cannot ease refiners past the blend wall, since they surpassed that imagined limit years ago. The changes also cannot ease RIN prices, since the price spikes remain unexplained.

More recently, a group of merchant refiners petitioned EPA to once again exempt them from the RFS program by changing the definition of "obligated party."[23] The petition rests on the demonstrably incorrect assumption that the 2013 RIN price spike was caused by arrival of the blend wall. In November 2016, the agency proposed to deny this petition and opened a public comment period.[24] The agency would be correct to deny the petition, based on the evidence that the blend wall is neither an insurmountable problem nor the cause of RIN shortages or price spikes.

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[22] 75 Fed. Reg. (14708), Friday, March 26, 2010.
[23] *Oversight of the Renewable Fuel Standard, Hearing before the Sen. Comm. On Env't and Public Works*, 114th Cong. 10 (Feb. 24, 2016). Written Testimony of Ronald E. Minsk. http://www.epw.senate.gov/public/_cache/files/a4545f2f-52df-4f3f-8a08-e5802950d8e5/rem-rfs-written-testimony.pdf. Also, Minsk, R.E., Letter to Janet McCabe, Acting Assistant Administrator for Air and Radiation, EPA, July 24, 2015.
[24] 81 Fed. Reg. (83776), Tuesday, Nov. 22, 2016.

In November 2016, EPA finalized Renewable Fuel Standards for 2017 and biomass-based diesel volume for 2018. The agency abandoned its legally flawed reliance on general waiver authority as a basis for departing from statutory RVOs, appearing to put the program back on track. As such, EPA has sent a strong signal that it will support the biofuels industry and grow advanced and cellulosic biofuel production. The rule adheres to Congress's intent in enacting the RFS statute and ends several years of instability in the RFS program. The agency should continue to set RVOs that ensure the congressionally set volumes of renewable fuel production and use are achieved.

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Appendix

EPA reports annual RIN generation and biofuel production by fuel type in its public data for the Renewable Fuel Standard. The ratio of RINs generated for ethanol to those generated for biomass-based diesel during the 2010- 2013 time period is presented below in Appendix Table A1. Other types of fuel that generate RINs available to satisfy the RFS – such as naphtha or compressed and liquefied natural gas – are not counted since they are not blended into the obligated volumes of gasoline and diesel.

Table A1: Calculation of Ethanol RINs from RINs Generated

	2010	2011	2012	2013	2014	2015
D6 biomass -based diesel RINs	18,779,478	6,258,577	1,118,519	251,525,451	337,143,096	452,583,073
D6 ethanol RINs	6,777,308,371	13,609,057,120	12,986,723,082	13,098,970,936	14,021,921,395	14,378,038,529
Ratio of ethanol	99.7	100	100	98.1	97.7	96.9
D5 biomass -based diesel RINs	24,568,615	33,385,319	20,728,997	70,172,481	14,742,412	9,312,772
D5 ethanol RINs	4,043,017	193,748,805	603,461,683	458,250,657	90,298,203	113,785,284
Ratio of ethanol	14.1	85.3	96.7	86.7	86.0	92.4

The aggregate use of carryover RINs beyond the 20 percent cap in 2012 is clearly demonstrated in the data posted by EPA for obligated refiners, recreated in Table A2 below. Obligated refiners used more than 3.378 billion 2011 vintage RINs out of a total 15.139 billion RINs retired to meet their overall 2012 RVO, equal to 22.3 percent. The final column in the table presents a sum of all carryover RINs retired by obligated refiners to meet the annual RVO above a sum of all RINs (both current year and carryover) retired. While there is a 20 percent cap on use of rollover RINs, the cap applies to individual obligated parties. The data here represents an aggregate use of RINs. There is no indication from EPA that any individual refiner violated the cap.

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Table A2: RINs Used for Compliance by Obligated Refiners, Including Carryover RINs, 2010-2015

	RIN Year	D4 RINs	D5 RINs	D6 RINs	Total Carryover and RINs retired to meet overall RVO
2010 Compliance Year[1]		N/A	N/A	N/A	
	2010	166,232,179	23,720,991	3,441,123,591	3,631,076,761
2011 Compliance Year[1]	**2010**	49,966,029	2,669,842	1,920,351,778	1,972,987,649
	2011	1,027,143,577	152,386,595	7,769,788,969	10,922,306,790
2012 Compliance Year	**2011**	268,961,057	49,103,786	3,060,020,326	3,378,085,169
	2012	1,254,882,608	415,495,440	10,090,718,261	15,139,181,478
2013 Compliance Year	**2012**	244,478,487	156,284,147	2,040,007,535	2,440,770,169
	2013	1,939,160,352	485,169,551	11,476,873,108	16,341,973,180
2014 Compliance Year	**2013**	479,063,252	41,608,028	1,041,444,423	1,562,115,703
	2014	2,033,114,324	84,336,799	11,953,210,826	15,632,777,652
2015 Compliance Year	**2014**	373,366,345	53,966,409	1,284,546,979	1,711,879,733
	2015	2,286,481,195	44,854,280	12,673,720,820	16,716,936,028

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Message

From: Burkholder, Dallas [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=667EF175292D4784997E454A9985B3B3-BURKHOLDER, DALLAS]
Sent: 7/28/2017 8:00:48 PM
To: Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]
CC: Korotney, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7b00e16e09654b94bc6146550ca87936-Korotney, David]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]; Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]; Audette, Lucie [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e2e4c9a6f94540a3ac2cb8ef952bc4d9-Audette, Lucie]; Michaels, Lauren [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Sobel, Aaron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c4353a8c78d1468db99d14f545de6ec9-Sobel, Aaro]; Shelby, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8e73da7dcf22494c88546c6ef3c6bc27-mshelby]; Dubois, Roland [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=835458b87b574ccbb1704415df8413d1-RDUBOIS]; Li, Ryland (Shengzhi) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7cf0eac9d34b446f88e03f8ec48274f1-Li, Shengzh]; Lie, Sharyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02041179e5dd4b9e9c5ea63701032c04-slie]
Subject: RE: First Draft of the Early Guidance Briefing
Attachments: Draft RFS 2018 Annual Rule Early Guidance Briefingv2.pptx

Deliberative Process / Ex. 5

Dallas

From: Machiele, Paul
Sent: Friday, July 28, 2017 3:05 PM
To: Parsons, Nick <Parsons.Nick@epa.gov>
Cc: Korotney, David <korotney.david@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Audette, Lucie <audette.lucie@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>
Subject: Re: First Draft of the Early Guidance Briefing

Deliberative Process / Ex. 5

Sent from my iPhone

On Jul 28, 2017, at 11:18 AM, Parsons, Nick <Parsons.Nick@epa.gov> wrote:

My changes and comments on top of Dave's in red.

- Nick

From: Korotney, David
Sent: Friday, July 28, 2017 10:26 AM
To: Burkholder, Dallas <burkholder.dallas@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Audette, Lucie <audette.lucie@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>
Subject: RE: First Draft of the Early Guidance Briefing

Attached are my thoughts in purple and strikeout.

From: Burkholder, Dallas
Sent: Wednesday, July 26, 2017 5:18 PM
To: Machiele, Paul <machiele.paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Korotney, David <korotney.david@epa.gov>; Audette, Lucie <audette.lucie@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>
Subject: First Draft of the Early Guidance Briefing

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Deliberative Process / Ex. 5

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Dallas Burkholder
Office of Transportation & Air Quality
US Environmental Protection Agency
(734)214-4766
Burkholder.Dallas@epa.gov

<Draft RFS 2018 Annual Rule Early Guidance Briefing - DK NLP.PPTX>

Message

From: Parsons, Nick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7BA9A64331B0449A93CCC46F74D5D1F0-PARSONS, NICK]
Sent: 7/28/2017 3:18:25 PM
To: Korotney, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7b00e16e09654b94bc6146550ca87936-Korotney, David]; Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]; Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]; Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]; Audette, Lucie [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e2e4c9a6f94540a3ac2cb8ef952bc4d9-Audette, Lucie]; Michaels, Lauren [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Sobel, Aaron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c4353a8c78d1468db99d14f545de6ec9-Sobel, Aaro]; Shelby, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8e73da7dcf22494c88546c6ef3c6bc27-mshelby]; Dubois, Roland [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=835458b87b574ccbb1704415df8413d1-RDUBOIS]; Li, Ryland (Shengzhi) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7cf0eac9d34b446f88e03f8ec48274f1-Li, Shengzh]; Lie, Sharyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02041179e5dd4b9e9c5ea63701032c04-slie]
Subject: RE: First Draft of the Early Guidance Briefing
Attachments: Draft RFS 2018 Annual Rule Early Guidance Briefing - DK NLP.PPTX

My changes and comments on top of Dave's in red.

- Nick

From: Korotney, David
Sent: Friday, July 28, 2017 10:26 AM
To: Burkholder, Dallas <burkholder.dallas@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Audette, Lucie <audette.lucie@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>
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From: Burkholder, Dallas
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To: Machiele, Paul <machiele.paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Korotney, David <korotney.david@epa.gov>; Audette, Lucie <audette.lucie@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Sobel, Aaron

<Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>
Subject: First Draft of the Early Guidance Briefing

Attached is a first draft of an early guidance briefing for Deliberative Process / Ex. 5
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Deliberative Process / Ex. 5 Currently we are hoping to have the early guidance briefing on August 3. Since many of us will be out of town the early part of next week for the hearing, if you can get comments to me tomorrow or early on Friday that would be very helpful, so I can turn around another draft by the end of Friday. Assuming the target date for this briefing doesn't slip I'll need final comments to me by the end of the day next Tuesday (August 1) so I can put together a final version on August 2. As usual, if you can make any text edits in a different color text so they are obvious that would be very helpful. Thanks

Dallas Burkholder
Office of Transportation & Air Quality
US Environmental Protection Agency
(734)214-4766
Burkholder.Dallas@epa.gov

Message

From: Korotney, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7B00E16E09654B94BC6146550CA87936-KOROTNEY, DAVID]
Sent: 7/28/2017 2:26:15 PM
To: Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]; Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]; Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]; Audette, Lucie [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e2e4c9a6f94540a3ac2cb8ef952bc4d9-Audette, Lucie]; Michaels, Lauren [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Sobel, Aaron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c4353a8c78d1468db99d14f545de6ec9-Sobel, Aaro]; Shelby, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8e73da7dcf22494c88546c6ef3c6bc27-mshelby]; Dubois, Roland [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=835458b87b574ccbb1704415df8413d1-RDUBOIS]; Li, Ryland (Shengzhi) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7cf0eac9d34b446f88e03f8ec48274f1-Li, Shengzh]; Lie, Sharyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02041179e5dd4b9e9c5ea63701032c04-slie]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]
Subject: RE: First Draft of the Early Guidance Briefing
Attachments: Draft RFS 2018 Annual Rule Early Guidance Briefing - DK.pptx

Attached are my thoughts in purple and strikeout.

From: Burkholder, Dallas
Sent: Wednesday, July 26, 2017 5:18 PM
To: Machiele, Paul <machiele.paul@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Korotney, David <korotney.david@epa.gov>; Audette, Lucie <audette.lucie@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>
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Dallas Burkholder

Office of Transportation & Air Quality
US Environmental Protection Agency
(734)214-4766
Burkholder.Dallas@epa.gov

Message

From: Machiele, Paul [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B71A67C326714EBBAA72EDA552E55282-MACHIELE, PAUL]
Sent: 7/28/2017 4:02:20 AM
To: Dubois, Roland [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=835458b87b574ccbb1704415df8413d1-RDUBOIS]
CC: McKenna, Chris [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=451b675850124bf4a9db1d577ee3b9af-McKenna, Ch]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]; Korotney, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7b00e16e09654b94bc6146550ca87936-Korotney, David]; Michaels, Lauren [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Le, Madison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9297d8b52bcb41319ba40d11142ab307-Le, Madison]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]; Lie, Sharyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02041179e5dd4b9e9c5ea63701032c04-slie]; Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]; Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Manners, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebdb1392504a4b71894970b1a7bb186c-Manners, Mary]; Larson, Ben [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90befbe3d13a4516bcf24a7833bccc2c-blarson]; Li, Ryland (Shengzhi) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7cf0eac9d34b446f88e03f8ec48274f1-Li, Shengzh]; Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]
Subject: Re: Update on PES conversations

Ex. 5 - Deliberative Process

Sent from my iPhone

On Jul 27, 2017, at 12:51 PM, Dubois, Roland <Dubois.Roland@epa.gov> wrote:

Ex. 5 - Deliberative Process

From: McKenna, Chris
Sent: Wednesday, July 26, 2017 10:25 AM
To: Parsons, Nick; Korotney, David; Michaels, Lauren; Argyropoulos, Paul; Dubois, Roland; Hengst, Benjamin; Le, Madison; Bunker, Byron; Machiele, Paul; Lie, Sharyn; Burkholder, Dallas; Cohen, Janet; Manners, Mary; Larson, Ben
Cc: Li, Ryland (Shengzhi); Orlin, David
Subject: RE: Update on PES conversations

Nick,

Ex. 5 - Deliberative Process

THE CARLYLE GROUP
GLOBAL ALTERNATIVE ASSET MANAGEMENT

The Carlyle Group - Wikipedia

en.wikipedia.org

The Carlyle Group is an American multinational private equity, alternative asset management and financial services corporation. As one of the largest private equity ...

Thanks,
Chris

From: Parsons, Nick
Sent: Wednesday, July 26, 2017 9:28 AM
To: Korotney, David <korotney.david@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; McKenna, Chris <McKenna.Chris@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Larson, Ben <Larson.Ben@epa.gov>
Cc: Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: RE: Update on PES conversations

To answer Roland's questions on **Deliberative Process / Ex. 5**

Ex. 5 - Deliberative Process

- Nick

From: Korotney, David
Sent: Wednesday, July 26, 2017 8:54 AM
To: Michaels, Lauren <Michaels.Lauren@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; McKenna, Chris <McKenna.Chris@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Larson, Ben <Larson.Ben@epa.gov>
Cc: Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: RE: Update on PES conversations

Ex. 5 - Deliberative Process

From: Michaels, Lauren
Sent: Wednesday, July 26, 2017 8:21 AM
To: Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Korotney, David <korotney.david@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; McKenna, Chris <McKenna.Chris@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Larson, Ben <Larson.Ben@epa.gov>
Cc: Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: RE: Update on PES conversations

Some additional thoughts and answers to some of your questions in the attached.

From: Argyropoulos, Paul
Sent: Wednesday, July 26, 2017 7:38 AM
To: Dubois, Roland <Dubois.Roland@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Korotney, David <korotney.david@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; McKenna, Chris <McKenna.Chris@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Larson, Ben <Larson.Ben@epa.gov>
Cc: Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: RE: Update on PES conversations

Just a few questions etc. in attached.

My main question is: Deliberative Process / Ex. 5

Ex. 5 - Deliberative Process

Paul Argyropoulos
Senior Policy Advisor
US EPA
Office of Transportation and Air Quality
Phone: 202-564-1123
Mobile: 202-577-9354
Email: argyropoulos.paul@epa.gov
Web: www.epa.gov

From: Dubois, Roland
Sent: Tuesday, July 25, 2017 10:06 PM
To: Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Korotney, David <korotney.david@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; McKenna, Chris <McKenna.Chris@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Larson, Ben <Larson.Ben@epa.gov>
Cc: Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Orlin, David <Orlin.David@epa.gov>
Subject: Re: Update on PES conversations

Attached, for your view and comment, is a draft paper Deliberative Process / Ex. 5

Ex. 5 - Deliberative Process

Mandy has asked for paper by the end of the week. To allow us time to run this up the OGC management chain, could OTAQ please provide comments by COB tomorrow, the 26th? Deliberative Process / Ex. 5 Deliberative Process / Ex. 5 Thank you Roland

---

From: Hengst, Benjamin
Sent: Tuesday, July 25, 2017 5:29 PM
To: Hengst, Benjamin; Le, Madison; Bunker, Byron; Michaels, Lauren; Orlin, David; Korotney, David; Parsons, Nick; Machiele, Paul; Argyropoulos, Paul; Lie, Sharyn; Burkholder, Dallas; Dubois, Roland
Cc: Larson, Ben
Subject: Update on PES conversations
When: Wednesday, July 26, 2017 9:00 AM-9:30 AM.
Where: DCRoomARN6524/DC-OAR-OTAQ-IO

Personal Privacy / Ex. 6

Message

From: Hengst, Benjamin [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C414E2BF04A246BB987D88498EEFFF06-HENGST, BENJAMIN]
Sent: 7/17/2017 3:54:03 PM
To: Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]
Subject: agenda
Attachments: Fuels weekly with Mandy, Sarah, 7.20.17.docx

Here's what I got so far compadre

Message

From: Korotney, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7B00E16E09654B94BC6146550CA87936-KOROTNEY, DAVID]
Sent: 9/23/2016 7:37:49 PM
To: Sutton, Tia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=25e87403f63143acbb959446512a372c-Sutton, Tia]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Argyropoulos, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0149b93d2780437a9c2b6d8477df7991-pargyrop]
Subject: Compiled 2017 standards final rule
Attachments: Compiled preamble for AA review 9-23-16.docx

Here you go.

Robert L. Greco, III
Group Director
Downstream & Industry Operations

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USA
Telephone 202-682-8167
Fax 202-682-8051
Email greco@api.org
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October 11, 2013

The Honorable Gina McCarthy
Administrator
United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Request for Reconsideration of EPA's Final Rulemaking "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards; Final Rule" issued on August 15, 2013 (Docket ID No. EPA-HQ-OAR-2012-0546).

Dear Administrator McCarthy:

The American Petroleum Institute ("API") submits this petition for administrative reconsideration of the final rule entitled "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards; Final Rule" published at 78 Federal Register 49794 (August 15, 2013) pursuant to section 307(d)(7)(B) of the Clean Air Act, 42 U.S.C. § 7607(d)(7)(B). It was impracticable for API to raise the objections raised in this petition during the public comment period - because they became known after the period for public comment (indeed, only when EPA published the final rule) - and these objections are of central relevance to the outcome of the rule.

API is a national trade association representing more than 500 companies involved in all aspects of the oil and natural gas industry, including those that are the obligated parties under the Renewable Fuel Standard ("RFS"). Our industry supports the use of biofuels, but the RFS is unrealistic and unworkable and should be repealed by Congress. EPA's implementation of the program contributes to the problem, and the 2013 Final Rule is no exception.

Three specific issues in the rulemaking to establish the 2013 standards merit reconsideration: (1) EPA failed to use the October 2012 EIA information regarding gasoline and diesel production estimates for 2013 and instead improperly relied on EIA information from 2013, after the compliance period began; (2) EPA's methodology to establish the cellulosic standard in 2013 continues to be flawed, and information clearly available to the Agency before the rule was finalized exposes this flawed methodology; and (3) EPA granted a small refiner exemption that improperly and retroactively raised the obligation for other obligated parties.

Use of New EIA Data

EPA failed to use the October 2012 EIA information regarding gasoline and diesel production estimates for 2013, even though the Agency proposed using this data set. Instead, EPA's final rule used EIA information

from 2013 - after the compliance period began. EPA did not propose this new methodology to set the standards, and API could not have raised its objections with this approach in the comment period.

Clean Air Act Section 211(o)(3) states:

> ***(3) Applicable percentages***
>
> ***(A) Provision of estimate of volumes of gasoline sales***
>
> *Not later than October 31 of each of calendar years 2005 through 2021, the Administrator of the Energy Information Administration shall provide to the Administrator of the Environmental Protection Agency an estimate, with respect to the following calendar year, of the volumes of transportation fuel, biomass-based diesel, and cellulosic biofuel projected to be sold or introduced into commerce in the United States.*
>
> ***(B) Determination of applicable percentages***
>
> > ***(i)****In general Not later than November 30 of each of calendar years 2005 through 2021, based on the estimate provided under subparagraph (A), the Administrator of the Environmental Protection Agency shall determine and publish in the Federal Register, with respect to the following calendar year, the renewable fuel obligation that ensures that the requirements of paragraph (2) are met.*

EPA's Proposed Rule states[1]:

> *"The Act requires EPA to base the standards on an EIA estimate of the amount of gasoline and diesel that will be sold or introduced into commerce for that year. The four separate renewable fuel standards for 2013 are based on the gasoline, ethanol, diesel, and biodiesel consumption volumes projected by EIA. [Footnote: Letter, Adam Sieminski, Administrator, U.S. Energy Information Administration, to Lisa P. Jackson, Administrator, U.S. EPA, October 18, 2012.]*

The Clean Air Act directs EPA to set the subsequent year's standards based on the EIA estimate due October 31. EPA has no discretionary authority to use other subsequent estimates, and EPA gave no indication in the Proposed Rule that the Agency would consider using other estimates. It was not appropriate for EPA to solicit EIA for a revised fuel demand estimate, and it was improper for EPA to set the volume obligations based on the new information.

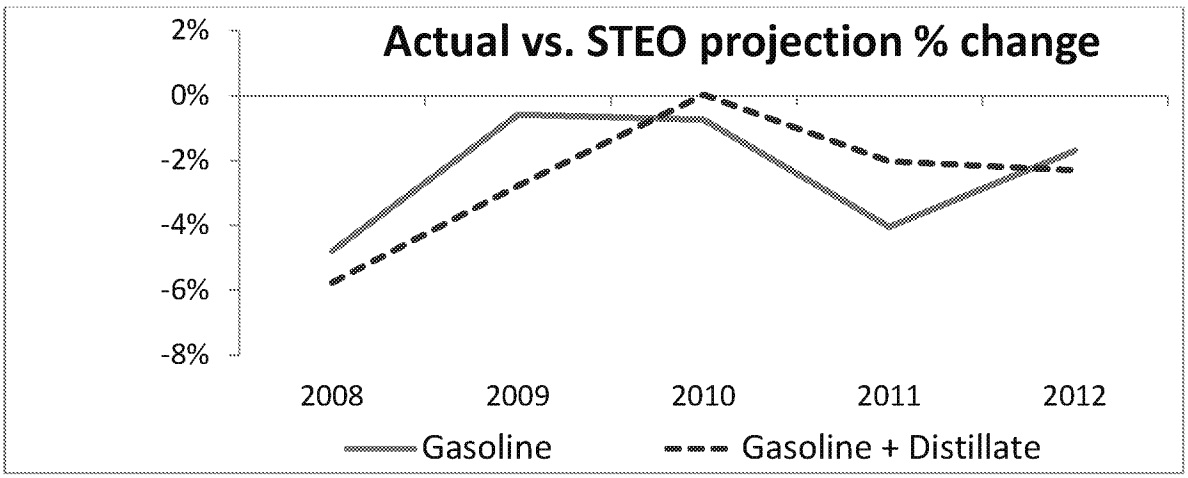
EPA acknowledges the tardiness of the rule, and explains that its delay is the rationale for using more up to date information. Conventional wisdom might suggest that the most up-to-date transportation fuel demand information will render the most accurate results, but, in reality, this assumption founders.

Obligated parties must acquire the proper number of RINs to demonstrate compliance. Regulatory certainty before January 1 of the compliance year is needed for efficient planning and logistics purposes. The 2013 RFS proposed rule which was published late on February 7, 2013 included an RFS total renewable standard of 9.63%; the final rule published on August 15, 2013 revised that standard to 9.74%. This change can have material impact on obligated parties' compliance plans.

---

[1] "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards; Proposed Rule." *Federal Register* Vol. 78, No. 26 (February 7, 2013): 9302

Due to the forward-looking projections required by statute, the RFS will always have inherent variability with respect to the transportation demand projections (see chart below). Congress recognized the need for regulatory certainty by requiring final rules by November 30, regardless of future changes in transportation demand. EPA acted outside its scope of authority in establishing RFS requirements that were based on information made available so late into the compliance period. EPA placed the May 8th EIA information in the docket on August 15th, raising additional concerns that the Agency is acting in a manner that total disregards obligated parties' need for regulatory certainty and only complicates compliance.



Based on October STEO and EIA data on actual fuel consumption

EPA's Cellulosic Biofuel Methodology

API provided comment to the Proposed Rule to establish the 2013 cellulosic standard stating that the proposed cellulosic standard was aspirational, arbitrary, and out of touch with reality. EPA has apparently not changed its "self-fulfilling prophesy" approach as EPA has failed to adopt a neutral methodology in the proposed or final rules. The final 2013 requirements are volumetrically lower than what was proposed, yet the Proposed Rule and Final Rule are equally unrealistic considering that the final was published so late in the year. New information now available clearly demonstrates that EPA's methodology and process used to develop the final 2013 standards were flawed and merit reconsideration. The information recently made available is regarding the capability of the KiOR facility in Columbus, Mississippi to meet its share of EPA's projected cellulosic production.

EPA finalized a cellulosic biofuel requirement that presumes a capability by KiOR to produce 3 to 4 million physical gallons (5 to 6 million ethanol equivalent gallons) of cellulosic biofuel. EPA supports this estimate with the fact that KiOR's Columbus, Mississippi facility began production in March 2013; and on May 9th the

company projected total 2013 production in the range of 3 to 5 million physical gallons. The May 9th conference call statement from KiOR President and CEO Fred Cannon below provides additional context:

> *"we expect that total fuel production during the second quarter will range between 300,000 & 500,000 gallons, keeping us on track to fall within our projected production range of 3 million to 5 million gallons for 2013.*

EPA EMTS data show about 5,000 physical gallons were produced in March; and continuous production was apparently not achieved as evidenced by the lack of cellulosic RIN regeneration in April or May. EMTS shows an additional 68,000 physical gallons were produced in June, far short of KiOR's projected 300,000 to 500,000 gallons second quarter production. KiOR's inability to ramp up to meet its production goal for the 2nd quarter of 2013, combined with the miniscule 1st quarter 2013 volume raises serious doubt that the company will meet its earlier projection of production for the entire 2013 calendar year.

In EPA's discussion of the viability of INEO's production facility, the Final Rule notes that initial production was announced on July 31, indicating EPA did continue to track individual cellulosic producer progress immediately prior to finalizing the rule. Yet, EPA's own EMTS data available in late July showed KiOR production estimates from May were no longer realistic. EPA apparently continued to rely on public statements from KiOR made in May that were clearly outdated.

Immediately after EPA made a pre-publication version of the final 2013 standards available, KiOR held a conference call on August 8th to discuss second quarter results. The company announced expectations to produce 1 to 2 million gallons of cellulosic biofuel in 2013, and to achieve normal, steady-state optimal operations at the Columbus facility in the first half of 2014. The news indicates that EPA either did not continue to track KiOR's progress, or that EPA did continue to monitor progress but intended to set aspirational standards. It is additionally concerning that EPA appears to be inconsistent in evaluating individual cellulosic facilities, selectively using information that increases the standard.

API has some concerns with EPA's use of cellulosic producer information obtained in the compliance period. However, very little cellulosic biofuel has been produced and unlike our concerns with the use of more recent EIA information raised earlier, obligated parties likely would not have behaved differently in the first 8.5 months of the year to comply with the cellulosic standard. API does not take position in this petition on the appropriateness of using cellulosic producer information obtained in the compliance period; the most recent information merely demonstrates how EPA continues to implement the standard with a flawed methodology, which is the basis for requiring reconsideration. EPA needs to use a more accurate methodology such as basing the volume on actual cellulosic production, rather than using selectively chosen, optimistic projections from companies when history shows are consistently wrong.

EPA should immediately reconsider the cellulosic biofuel standard and use a methodology that takes neutral aim at accuracy, as directed by the U.S. Court of Appeals for the D.C Circuit. API continues to recommend using three months of actual cellulosic production.

KiOR's ability to produce even the revised 1 to 2 million gallon estimate for 2013 is far from certain. On August 20th, a class action complaint was filed with the U.S. District Court; Southern District of Texas seeking to recover damages from KiOR's alleged violations of the Securities Exchange Act. The complaint claims that KiOR: *"continued to falsely reassure investors that the company remained on track to achieve commercially meaningful biofuel production levels at the Columbus facility."* While the lawsuit was only recently filed and will likely not be settled or decided for some time, EPA should be following these developments when considering how it will establish a methodology that aims at accuracy when developing projections for 2014 and beyond. API raised concerns for several years that potential cellulosic producers' volume estimates and timeframes have historically been overly-optimistic, and KiOR is no exception.

Most recently, EPA made EMTS data available for August 2013 which show that no D3 or D7 RINs were generated in this month, indicating that companies have not achieved steady state production of cellulosic biofuels. This information also lends further credibility to the API suggested methodology of using three consecutive months of producer data in setting the standard.

Small Refiner Exemption

The Clean Air Act allows for small refiner exemptions and/ or extensions based on an EIA study, or on a case by case basis as determined by EPA. EPA's timeliness in rulemaking development is critical to the implementation of the small refiner provisions. In the Final Rule, EPA references the following statements made in the Final Rule establishing the 2011 standards:

"EPA believes 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"

API agrees with the statement above, and reiterates the need for regulatory certainty. Although EPA indicated in the proposal that the Agency believed it could continue to consider exemptions on a case-by-case basis, obligated parties were expecting prompt finalization of the rule, which would have limited the period of uncertainty. EPA should not have reallocated the exempted party's obligation across the rest of the industry, especially when it was too far into the compliance period to be changing the required compliance for the first 8.5 months of the year.

Retroactive Rulemakings

The 2013 RFS Final Rule indicated that EPA would extend the deadline for companies to demonstrate compliance with the 2013 RVO standards. API welcomes the change, but not for the reason EPA identified.

Not only does the text of the 2013 RFS Final Rule as published in the August 15, 2013 *Federal* Register indicate that EPA expects to be late in issuing the final 2014 standard, it, in effect, shows that the Agency expects to be as much as six months late! It increasingly appears that EPA will not meet the November 30, 2013 deadline for finalizing the 2014 RFS standards. The Agency should strive to issue the rules on time. Effectively stating in August 2013 that an annual rulemaking (which should by now be a routine process) could take another 10 months to promulgate is a tacit admission that the agency isn't concerned about issuing timely RFS rules.

EPA's habitual delays in promulgating the annual RFS standards are unacceptable and fundamentally unfair. Obligated parties need this information ahead of the compliance year – as the Clean Air Act clearly requires EPA to do – in order to make operational, logistics, and investment decisions. If EPA is unwilling or unable to meet the statutorily required dates, API may seek judicial assistance in enforcing the deadlines. Furthermore, the uncertainties created by the ethanol blendwall in 2013 and beyond are enormous, and EPA is only adding to the uncertainty with retroactive rules.

Conclusion

The issues outlined above collectively show that EPA is not effectively implementing the RFS, and the Agency's 2013 Final Rule continues the pattern of overly aggressive implementation of an unrealistic mandate. The ethanol blendwall remains our industry's biggest concern with the RFS, and EPA continues to exacerbate the problem. EPA not only fails to use its discretionary authority to mitigate the problem but, as described in this petition, EPA exceeds its authority in ways that only advance the timing and severity of the ethanol blendwall. EPA should expeditiously grant this petition.

We appreciate your attention to these issues, and look forward to your response. If you have any questions regarding this petition, please don't hesitate to contact us.

Sincerely,

Robert L. Greco III

Robert L. Greco, III
Group Director, Downstream & Industry Operations

cc: Chris Grundler

USCA Case #16-1050 Document #1598756 Filed: 02/11/2016
UNITED STATES COURT OF APPEALS
FOR DISTRICT OF COLUMBIA CIRCUIT

UNITED STATES COURT OF APPEALS
FOR DISTRICT OF COLUMBIA CIRCUIT
FILED FEB 11 2016
CLERK

FEB 11 2016
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IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

AMERICAN PETROLEUM INSTITUTE, *Petitioner*, v. GINA MCCARTHY, in her official capacity as Administrator, U.S. Environmental Protection Agency, and UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *Respondents*.	)	No. 16-1050

ORIGINAL

PETITION FOR REVIEW

Pursuant to 42 U.S.C. § 7607(b) and Rule 15(a) of the Federal Rules of Appellate Procedure, the American Petroleum Institute ("API") hereby petitions this Court for review of the final rule of the United States Environmental Protection Agency entitled "Renewable Fuel Standard Program: Standards for 2014, 2015, and 2016 and Biomass-Based Diesel Volume for 2017," 80 Fed. Reg. 77,420 (Dec. 14, 2015), to be codified at 40 C.F.R. Part 80 ("*Final Rule*"). A copy of the *Final Rule* is attached to this Petition.

API seeks review on the grounds that aspects of the *Final Rule* are arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law; are in excess of statutory jurisdiction, authority, or limitations; and were adopted without observance of procedure required by law. *See* 42 U.S.C. § 7607(d)(9). API requests that this Court hold unlawful, vacate, enjoin, and set aside these aspects of the *Final Rule*, and that the Court award costs as authorized by 42 U.S.C. § 7607(f).

Respectfully submitted,

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Attorneys for Petitioner
American Petroleum Institute

DATED: February 11, 2016.

UNITED STATES COURT OF APPEALS
FOR DISTRICT OF COLUMBIA CIRCUIT

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UNITED STATES COURT OF APPEALS
FOR DISTRICT OF COLUMBIA CIRCUIT
FILED FEB 11 2016
CLERK

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

AMERICAN PETROLEUM INSTITUTE, *Petitioner*, v. GINA MCCARTHY, in her official capacity as Administrator, U.S. Environmental Protection Agency, and UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, *Respondents*.	)	No. 16-1050

ORIGINAL

CORPORATE DISCLOSURE STATEMENT

Pursuant to Rule 26.1 of the Federal Rules of Appellate Procedure and Circuit Rule 26.1, Petitioner American Petroleum Institute ("API") states as follows:

API is a nationwide, not-for-profit association representing over 625 member companies engaged in all aspects of the oil and gas industry, including science and research, exploration and production of oil and natural gas, transportation, refining of crude oil, and marketing of oil and gas products.

API has no parent companies, and no publicly-held company has a ten percent or greater ownership interest in API. API is a "trade association" within the meaning of Circuit Rule 26.1. API is a continuing association operating for the purpose of promoting the general commercial, regulatory, legislative, and other interests of its membership.

Respectfully submitted,

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Attorneys for American Petroleum Institute

February 11, 2016

CERTIFICATE OF SERVICE

I hereby certify that on this 11th day of February 2016, I caused copies of the foregoing Petition for Review and Corporate Disclosure Statement to be served upon the parties listed below by first class mail, postage prepaid, to:

Administrator Gina McCarthy
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Ave. NW
Washington, DC 20460

Avi Garbow
General Counsel
Office of the General Counsel
U.S. Environmental Protection Agency
Ariel Rios Building
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Loretta E. Lynch
Attorney General of the United States
U.S. Department of Justice
950 Pennsylvania Aye, NW
Washington, DC 20530

Robert A. Long, Jr.

United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 17-1047 **September Term, 2016**

EPA-81FR89746

Filed On: February 14, 2017 [1661160]

Valero Energy Corporation,

Petitioner

v.

Environmental Protection Agency,

Respondent

NOTICE

This case was docketed on February 10, 2017. The Environmental Protection Agency is hereby notified that the attached is a true copy of the petition for review, which was filed on February 10, 2017, in the United States Court of Appeals for the District of Columbia Circuit, in the above-captioned case.

The Clerk is directed to transmit a copy of this notice, along with the petition for review, to respondent.

FOR THE COURT:
Mark J. Langer, Clerk

BY: /s/
Robert J. Cavello
Deputy Clerk

Attachment:
Certified Copy of Petition for Review

United States Court of Appeals
For the Eighth Circuit

No. 14-3405

Lion Oil Company

Petitioner

v.

Environmental Protection Agency

Respondent

Petition for Review of an Order of the
Environmental Protection Agency

Submitted: June 11, 2015
Filed: July 8, 2015

Before GRUENDER, BEAM, and BENTON, Circuit Judges.

BENTON, Circuit Judge.

Lion Oil Company petitioned the Environmental Protection Agency for an exemption from the Renewable Fuel Standard program for 2013. EPA denied the petition. Lion Oil appeals. Having jurisdiction under 42 U.S.C. § 7607(b)(1), this court affirms.

I.

The RFS program sets annual renewable-fuel targets for refineries. *See* **42 U.S.C. § 7545(o)**. Refineries must blend their share of renewable fuel or buy credits from those who exceed blending requirements. Congress exempted "small" refineries—75,000 barrels of crude oil or less per day—from RFS obligations until 2011. **§§ 7545(o)(1)(K), 7545(o)(9)(A)(i)**. The exemption can be extended. The Department of the Energy "shall conduct for [EPA] a study to determine whether compliance with [RFS requirements] would impose a disproportionate economic hardship on small refineries." **§ 7545(o)(9)(A)(ii)(I)**. If DOE determines a small refinery "would be subject to a disproportionate economic hardship if required to comply," EPA "shall extend the exemption . . . for a period of not less than 2 additional years." **§ 7545(o)(9)(A)(ii)(II)**. Also, "A small refinery may at any time petition [EPA] for an extension of the exemption . . . for the reason of disproportionate economic hardship." **§ 7545(o)(9)(B)(i)**. When evaluating such petitions, EPA, "in consultation with the Secretary of Energy, shall consider the findings of [DOE's] study . . . and other economic factors." **§ 7545(o)(9)(B)(ii)**.

DOE completed its study in 2011. It concluded, "Disproportionate economic hardship must encompass two broad components: a high cost of compliance relative to the industry average, and an effect sufficient to cause a significant impairment of the refinery operations." To implement these components, DOE created a dual-index scoring matrix. One index measures disproportionate structural and economic impact; the other, RFS compliance on refiner viability. The viability index has three metrics—3a ("Compliance cost eliminates efficiency gains"), 3b ("Individual special events"), and 3c ("Compliance costs likely to lead to shut down"). DOE defines "individual special events" as "Refinery specific events (such as a shutdown due to an accident, and subsequent loss of revenue) in the recent past that have a temporary negative impact on the ability of the refinery to comply with the RFS." Originally,

DOE scored all three metrics as 0 or 10. In a May 2014 addendum to the study, DOE added 5 as a possible score for metrics 3a and 3b (but not metric 3c).

Lion Oil, a small refinery in El Dorado, Arkansas, received exemptions through 2012. It petitioned EPA for an exemption for 2013. Citing disruption to a key supply pipeline and noting its "financial position has not improved," Lion Oil argued that RFS compliance would cause disproportionate economic hardship.

Before EPA considered the petition, DOE first scored Lion Oil on DOE's matrix, as amended by the addendum. DOE determined that Lion Oil did not score high enough on the viability index to show disproportionate economic hardship. Specifically, on metric 3b, DOE concluded the pipeline disruption was not an "individual special event" because "several refineries . . . were impacted by the reduced flow." (Lion Oil agrees that the pipeline disruption affected four other refineries.)

EPA's 23-page decision summarized DOE's analysis, a "primary factor" in its decision. EPA also said it "evaluate[d] viability . . . in the same manner that DOE considers viability in its own methodology." EPA did not re-score Lion Oil on DOE's matrix. Instead, EPA "independently" analyzed the pipeline disruption and Lion Oil's blending capacity, projected RFS-compliance costs, and financial position.

Lion Oil requested protection of "confidential business information." EPA sent its decision to Lion Oil only. At oral argument, Lion Oil's counsel said, "It's really just the specific numbers, the dollar amounts, the numbers of [credits] that are confidential."

Lion Oil appealed to this court under 42 U.S.C. § 7607(b)(1). The statute "lodges jurisdiction over challenges to 'any . . . final [EPA] action' in the Courts of Appeals." ***Alaska Dep't of Envtl. Conservation v. E.P.A.***, 540 U.S. 461, 481 (2004),

quoting **§ 7607(b)(1)**. *See also* ***Whitman v. Am. Trucking Ass'ns***, 531 U.S. 457, 477 (2001) (stating § 7607(b)(1) "gives the court jurisdiction").

Section 7607(b)(1) has three parts. First, "A petition for review of . . . any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter may be filed only in the" D.C. Circuit. **42 U.S.C. § 7607(b)(1)**. Second, "A petition for review of the Administrator's action . . . which is locally or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit." ***Id.*** Third, "Notwithstanding the preceding sentence a petition for review of any action [that is locally or regionally applicable] may be filed only in the [D.C. Circuit] if such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination." ***Id.***

Lion Oil also appealed to the D.C. Circuit, which is holding that appeal in abeyance pending this court's decision. EPA then moved to dismiss this appeal, arguing the D.C. Circuit has exclusive authority to hear Lion Oil's appeal. This court took EPA's motion with the case. This court also granted Lion Oil's unopposed motion to seal EPA's decision and the parties' joint motion to file their briefs and appendix under seal.

II.

The parties agree that EPA's petition-denial is locally or regionally applicable, not nationally applicable. This court may hear a petition unless the denial "is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination." *See* ***id.***

In its decision, EPA stated, "This decision is a final agency action of nationwide scope and effect for purposes of [§ 7607(b)(1)]." EPA sent the decision to Lion Oil only. EPA made no announcement in any public record, including its website.

EPA argues, "Lion Oil's petition may only be heard in the D.C. Circuit because EPA has made an express and unambiguous determination of nationwide scope or effect." Lion Oil counters that EPA did not publish the necessary finding. Even if EPA published a finding, Lion Oil argues this court must independently conclude that EPA's action "is based on a determination of nationwide scope or effect."

Section 7607(b)(1) does not define "publishes." The parties do not cite cases or legislative history interpreting the term. "When a term is undefined, we give it its ordinary meaning." ***United States v. Santos***, 553 U.S. 507, 511 (2008) (analyzing dictionary definitions of "proceeds" for purposes of money-laundering statute). The ordinary meaning of "publish" requires *some* public distribution. *See* **Webster's International Dictionary** 1837 (3d ed. 1961) (defining "publish" as "to declare publicly: make generally known"); **Black's Law Dictionary** 1428 (10th ed. 2014) (defining "publish" as "[t]o distribute copies (of a work) to the public"). *See also* **Webster's International Dictionary** 1836 (3d ed. 1961) (defining "public" as "of, relating to, or affecting the people as an organized community").

EPA does not assert a different meaning of "publish." Instead, EPA argues for an exception because it honored Lion Oil's request to protect certain confidential business information. But the plain language of § 7607(b)(1) permits no exception, and EPA cites no evidence of congressional intent to provide one.

At oral argument, EPA requested a remand "to allow the agency to follow the required procedure." Section § 7607(b)(1) is plain: An appeal of EPA action "which is locally or regionally applicable may be filed only in" the regional circuit *unless*, at

least, "the Administrator finds and publishes that such action is based on" a determination of nationwide scope or effect. *See* **42 U.S.C. § 7607(b)(1)**. Under the ordinary meaning of "publish," EPA must make public distribution of its decision, not just to the petitioner.

This court may hear Lion Oil's appeal because EPA did not publish the necessary finding.[1]

III.

This court "shall . . . hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." **5 U.S.C. § 706(2)(A)**. "[D]ue account shall be taken of the rule of prejudicial error." **§ 706**. This court "shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action." ***Id.***

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[1]While § 7607(b)(1) "gives the court jurisdiction," *Whitman*, 531 U.S. at 477, the parties treat § 7607(b)(1) as a venue provision. *See* ***Texas Mun. Power Agency v. E.P.A.***, 89 F.3d 858, 867 (D.C. Cir. 1996) ("Given the less than clear language, the structure of the section—dividing cases among the circuits—and the legislative history indicate that [§ 7607(b)(1)] is framed more as a venue provision."). Because EPA failed to publish a finding, this court need not reach whether § 7607(b)(1), particularly its third sentence, is also a venue provision—just as this court need not decide whether EPA's action "is based on a determination of nationwide scope or effect."

A.

Lion Oil argues that DOE's "scoring decision [on metric 3b] was flawed, and EPA acted arbitrarily and capriciously in using it is as a basis for its rejection of Lion Oil's petition."

"An agency decision is arbitrary or capricious if: the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." ***El Dorado Chem. Co. v. E.P.A.***, 763 F.3d 950, 955-56 (8th Cir. 2014). "The scope of our review is narrow and we are not to substitute our judgment for that of the agency." ***Id.*** at 956, *citing* ***Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.***, 463 U.S. 29, 43 (1983).

EPA did not arbitrarily use DOE's scoring decision. Rather, EPA did as Congress directed—"in consultation with the Secretary of Energy, [EPA] consider[ed] the findings of [DOE's] study." *See* **42 U.S.C. § 7545(o)(9)(B)(ii)**. EPA said DOE's analysis was a "primary factor" in EPA's decision. EPA "evaluate[d] viability . . . in the same manner that DOE considers viability in its own methodology." EPA then "independently" analyzed the pipeline disruption, noting it "affected several other refineries, and thus was not a 'special event' specific to Lion." EPA also contextualized the disruption's impact on Lion Oil's financial position.

Lion Oil claims DOE's scoring "was flawed." To the extent Lion Oil can challenge DOE's scoring on metric 3b, it was proper. The study defined "individual special events" as "Refinery specific events (such as a shutdown due to an accident, and subsequent loss of revenue) in the recent past that have a temporary negative

impact on the ability of the refinery to comply with the RFS." Lion Oil agrees that the disruption affected four other refineries. By the study's definition, the disruption was not "refinery specific."

B.

Lion Oil's other arguments focus on DOE's addendum. Because EPA, not DOE, is the respondent, Lion Oil's theme is that DOE's scoring was "outcome-determinative." Even if DOE's scoring was "outcome-determinative," Lion Oil fails to show how the availability of an intermediate score prejudiced Lion Oil. *See* **5 U.S.C. § 706**.

1.

Lion Oil argues that the addendum was unlawful because it was not adequately explained. An agency must "provide reasoned explanation for its action" and "show that there are good reasons for the new policy." ***F.C.C. v. Fox Television Stations, Inc.***, 556 U.S. 502, 515 (2009). "But it need not demonstrate to a court's satisfaction that the reasons for the new policy are *better* than the reasons for the old one; it suffices that the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better, which the conscious change of course adequately indicates." ***Id.***

In the addendum, DOE said metrics 3a and 3b measure "impacts that may occur across a continuum, and providing for the possibility of an intermediate score allows DOE to more accurately assess an individual refinery's economic situation." In its decision denying Lion Oil's petition, EPA noted, "DOE added a 5 as a possible intermediate score . . . to more accurately characterize the impacts of compliance costs (3a) or individual special events (3b) on a refinery."

Lion Oil argues that DOE and EPA offered "not an explanation for the change but merely a description of it." To the contrary, DOE and EPA provided a "reasoned explanation" and "good reasons." *See* ***id.*** The intermediate score "allows for more nuanced and accurate characterization of the" refinery's situation. *See* ***Hermes Consol., LLC v. E.P.A.***, 2015 WL 3461360, at *5, *10 (D.C. Cir. June 2, 2015) (vacating EPA's denial of small refinery's exemption petition because EPA conceded it made two miscalculations about petitioner's financial data).

2.

Lion Oil argues that the addendum required notice-and-comment rulemaking. "Agencies must conduct 'rule making' in accord with the [Administrative Procedure Act's] notice and comment procedures." ***Iowa League of Cities v. E.P.A.***, 711 F.3d 844, 855 (8th Cir. 2013). *See* **5 U.S.C. § 553** ("Rule making"). "However, only new 'legislative' rules are required to be created pursuant to notice and comment rulemaking," not "interpretative rules" or "general statements of policy." ***Iowa League of Cities***, 711 F.3d at 855.

According to Lion Oil, the addendum is "a legislative rule" because EPA "gave [the addendum] conclusive effect." Lion Oil cites *General Electric Company v. E.P.A.*, 290 F.3d 377, 383 (D.C. Cir. 2002): "[A]n agency pronouncement will be considered binding as a practical matter if it either appears on its face to be binding, or is applied by the agency in a way that indicates it is binding."

Lion Oil's factual premise fails. EPA did not give the addendum "conclusive effect," nor could it, as EPA does not score petitions on DOE's matrix. Rather, EPA did as Congress directed—"in consultation with the Secretary of Energy, [EPA] consider[ed] the findings of [DOE's] study . . . and other economic factors." *See* **42 U.S.C. § 7545(o)(9)(B)(ii)**. EPA said DOE's analysis was a "primary factor" in EPA's decision, and EPA "evaluate[d] viability . . . in the same manner that DOE

considers viability in its own methodology." EPA also "independently" analyzed the pipeline disruption and Lion Oil's blending capacity, projected RFS-compliance costs, and financial position. *See* ***Hermes***, 2015 WL 3461360, at *6 (rejecting argument that addendum required notice-and-comment rulemaking because petitioner "points us to no authority suggesting that the decision to make available a more refined score within an already-existing metric requires notice-and-comment procedures" and finding "no basis for creating such a rule").

3.

Lion Oil argues that EPA unreasonably interpreted "disproportionate economic hardship" to mean long-term viability, particularly as credits became more costly. "Where a statute does not define a term, and Congress has delegated authority to an agency to implement an ambiguous statute, we are required to accept the agency's statutory interpretation, so long as it is reasonable." ***Fast v. Applebee's Int'l, Inc.***, 638 F.3d 872, 876 (8th Cir. 2011), *citing* ***Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.***, 467 U.S. 837, 844-45 (1984).

EPA's interpretation of "disproportionate economic hardship" is reasonable. "[T]he relative costs of compliance alone cannot demonstrate economic hardship because all refineries face a direct cost associated with participation in the program. Of course, some refineries will face higher costs than others, but whether those costs impose disproportionate *hardship* on a given refinery presents a different question." ***Hermes***, 2015 WL 3461360, at *5. EPA adopted DOE's determination "that the best way to measure 'hardship' entailed examining the impact of compliance costs on a refinery's ability to maintain profitability and competitiveness—*i.e.*, viability—in the long term." ***Id.*** "[T]hat choice lies well within the agency's discretion." ***Id.***

Lion Oil argues the addendum's "arbitrariness . . . is heightened by EPA's failure to apply the revised scoring methodology consistently." Lion Oil cites a letter from EPA to the D.C. Circuit in the *Hermes* case. There, EPA acknowledged that DOE gave some pre-addendum petitioners a 5 for metrics 3a and 3c—when a 5 was not yet an option (and still is not for metric 3c).

Again, EPA, not DOE, is the respondent here. Lion Oil does not show that EPA relied on DOE's scoring decisions in *those* petitions. Even if EPA did, *Lion Oil* was not prejudiced. *See* **5 U.S.C. § 706**.

* * * * * * *

EPA's denial of Lion Oil's petition is affirmed.

United States Court of Appeals
For The Eighth Circuit
Thomas F. Eagleton U.S. Courthouse
111 South 10th Street, Room 24.329
St. Louis, Missouri 63102

Michael E. Gans
Clerk of Court

VOICE (314) 244-2400
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July 08, 2015

Mr. Eric Miller
PERKINS & COIE
Suite 4900
40th Floor
1201 Third Avenue
Seattle, WA 98101-0000

RE: 14-3405 Lion Oil Company v. EPA

Dear Counsel:

The court today issued an opinion in this case. Judgment in accordance with the opinion was also entered today. The opinion will be released to the public at 10:00 a.m. today. Please hold the opinion in confidence until that time.

Please review Federal Rules of Appellate Procedure and the Eighth Circuit Rules on post-submission procedure to ensure that any contemplated filing is timely and in compliance with the rules. Note particularly that petitions for rehearing and petitions for rehearing en banc must be received in the clerk's office within 45 days of the date of the entry of judgment. Counsel-filed petitions must be filed electronically in CM/ECF. Paper copies are not required. No grace period for mailing is allowed, and the date of the postmark is irrelevant, for pro-se-filed petitions. Any petition for rehearing or petition for rehearing en banc which is not received within the 45 day period for filing permitted by FRAP 40 may be denied as untimely.

Michael E. Gans
Clerk of Court

YML

Enclosure(s)

cc: Ms. Elizabeth Boucher Dawson
Mr. Mark H. Foster Jr.
Ms. LeAnn Johnson
Loretta E. Lynch
Ms. Gina McCarthy
Mr. William Pedersen

District Court/Agency Case Number(s):

United States Court of Appeals
For The Eighth Circuit
Thomas F. Eagleton U.S. Courthouse
111 South 10th Street, Room 24.329
St. Louis, Missouri 63102

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July 08, 2015

West Publishing
Opinions Clerk
610 Opperman Drive
Building D D4-40
Eagan, MN 55123-0000

RE: 14-3405 Lion Oil Company v. EPA

Dear Sirs:

A published opinion was filed today in the above case.

Counsel who presented argument on behalf of the petitioner was Eric Miller, of Seattle, WA. Counsel who appeared on the brief on behalf of petitioner were Mark H. Foster, Jr. of Washington, DC., LeAnn Johnson of Washington, DC., William Pedersen of Washington, DC.

Counsel who presented argument on behalf of the respondent was Elizabeth Boucher Dawson, of Washington, DC.

The order of the Environmental Protection Agency was entered on 8/29/14.

If you have any questions concerning this case, please call this office.

Michael E. Gans
Clerk of Court

YML

Enclosure(s)

cc: Lois Law
MO Lawyers Weekly

District Court/Agency Case Number(s):

EXECUTIVE CHAMBERS

HONOLULU

LINDA LINGLE
GOVERNOR

RECEIVED
2007 JUL -5 AM 11:18
OFFICE OF THE EXECUTIVE SECRETARIAT

CCU

June 22, 2007

Mr. Stephen L. Johnson
Administrator
United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Attention: RFS Program, 6406J

SUBJECT: Hawaii's Petition for Approval to Opt-in to the Renewable Fuels Standard Program, 40 CFR Part 80

Dear Administrator Johnson:

The State of Hawaii hereby requests your approval to opt-in to the Renewable Fuels Standard program, pursuant to §80.1143 of the Renewable Fuel Standard (RFS) Program, Final Rulemaking, published in the Federal Register on May 1, 2007.

The use of renewable fuel is consistent with Hawaii's energy policy, laws, and regulations. A significant proportion of Hawaii's gasoline is blended with ethanol; biodiesel is both produced and used in Hawaii; public and private interest, investment, and potential in this area are significant. Including Hawaii's renewable energy production and use in the national standard is expected to benefit Hawaii's fuel producers and distributors, while confirming Hawaii's support for renewable energy sources.

I urge your favorable consideration of this request. Thank you for your attention to this matter.

Sincerely,

LINDA LINGLE

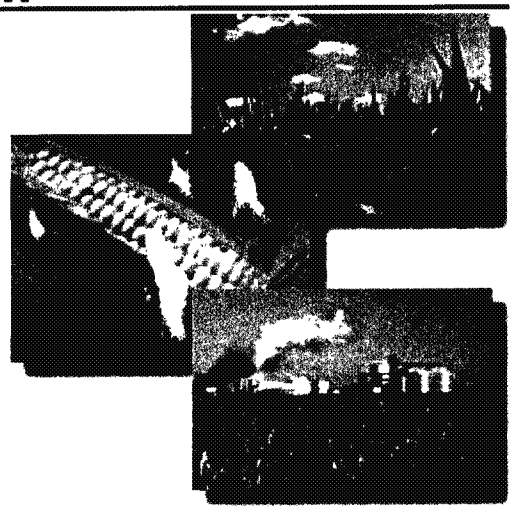
Attachments

http://www.epa.gov/otaq/renewablefuels/
Last updated on Thursday, May 17th, 2007.

Fuels and Fuel Additives

You are here: EPA Home Transportation & Air Quality Fuel and Fuel Additives Renewable Fuel Standard Program

Renewable Fuel Standard Program



Under the Energy Policy Act of 2005, EPA is responsible for promulgating regulations to ensure that gasoline sold in the United States contains a minimum volume of renewable fuel. A national Renewable Fuel Program (also known as the Renewable Fuel Standard Program, or RFS Program) will increase the volume of renewable fuel required to be blended into gasoline, starting with 4.0 billion gallons in calendar year 2006 and nearly doubling to 7.5 billion gallons by 2012. The RFS program was developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

- Regulations
- Compliance Help
- Registration and Reporting Forms
- Related Links

For further information or assistance regarding this page, please contact EPA's Assessment and Standards Division voicemail at: (734) 214-4636 or email: ASD Info (asdinfo@epa.gov).

NOTE: You will need Adobe Acrobat Reader, available as a free download, to view some of the files on this page. See EPA's PDF page to learn more about PDF, and for a link to the free Acrobat Reader.

Regulations

Renewable Fuel Standard Program: Notice of Final Rulemaking (published May 1, 2007)

EPA is finalizing a national renewable fuel program that will be applicable for 2007 and later, and is designed to encourage the blending of renewable fuels into our nation's motor vehicle fuel.

- Fact Sheet: EPA Finalizes Regulations for a Renewable Fuel Standard (RFS) Program for 2007 and Beyond (also available as a PDF file, 3 pp, 74K, EPA420-F-07-019, April 2007)
- Fact Sheet: Greenhouse Gas Impacts of Expanded Renewable and Alternative Fuels Use (also available as a PDF file, 3 pp, 86K, EPA420-F-07-035, April 2007)
- Notice of Final Rulemaking (PDF, the entire document) (116 pp, 1.4M) or by:
  - Pages: 23899-23948
  - Pages: 23949-23998
  - Pages: 23999-24014
- Summary and Analysis of Comments (EPA420-R-07-006, April 2007)
- Regulatory Impact Analysis (PDF) (350 pp, 3.7MB, EPA420-R-07-004, April 2007) **Instead of downloading the entire document, you can access** the individual chapters of the Regulatory Impact Analysis
- Estimating the Energy Security Benefits of Reduced U.S. Oil Imports (PDF) (38 pp, 463K, ORNL/TM-2007/028)

Renewable Fuel Standard Program: Notice of Proposed Rulemaking (published September 22, 2006)

RFA v. EPA (18-2031) ED_002308_00007496-00002

- Fact Sheet: EPA Proposes Regulations for a Renewable Fuel Standard (RFS) Program for 2007 and Beyond (also available as a PDF file, 3 pp, 143K, EPA420-F-06-060, September 2006)
- Press Release
- Notice of Proposed Rulemaking
  - Pages 55551-55600 (also available as a PDF file, 50 pp, 815K)
  - Pages 55601-55651 (also available as a PDF file, 51 pp, 1MB)
- Draft Regulatory Impact Analysis (PDF) (322 pp, 3.4MB, EPA420-D-06-008, September 2006)

Renewable Fuel Standard Requirements for 2006: Direct Final Rule and Notice of Proposed Rulemaking (published December 30, 2005)

With these rules, EPA is adopting the default standard for renewable fuel as set forth in the Energy Policy Act of 2005. Given the short timeframe available and the need to provide certainty to industry, EPA is finalizing a limited set of regulations that would interpret and clarify the statutory default provision of 2.78 percent so it can be implemented as intended for 2006.

- Fact Sheet: EPA Completes Regulations Clarifying the Default Standard for 2006 Under the Renewable Fuel Standard Program (also available as a PDF file, 4 pp, 36K, EPA420-F-05-057, December 2005)
- Direct Final Rule (also available as a PDF file, 12 pp, 338K)
- Notice of Proposed Rulemaking (also available as a PDF file, 13 pp, 222K)

Compliance Help

National Renewable Fuels Standard (RFS) Program Workshop: Held on May 10, 2007, at the Key Bridge Marriott Hotel in Arlington, Virginia. This workshop was designed to provide regulated parties with an overview of the program requirements and compliance provisions. Presentations made by EPA personnel are provided below:

- Program overview (PDF) (36 pp, 209K)
- Registration, recordkeeping, and reporting (PDF) (30 pp, 314K)
- Compliance and enforcement requirements, product transfer documents (PDF) (18 pp, 125K)
- Reporting through EPA's Central Data Exchange (PDF) (14 pp, 553K)

Questions and Answers on the Renewable Fuels Standards (PDF) (32 pp, 167K, EPA420-F-07-041, May 2007)

Registration and Reporting Forms

A variety of EPA fuels programs, including the RFS program, require submission of forms by parties in the fuel manufacturing and distribution industry. Some forms are used for registration of companies, facilities, and products; others are used for compliance reporting. For more information, go to our Fuels and Fuel Additives Reporting Forms page.

Related Links

Related Links

- Alternative Fuels: EPA's web page providing general information on alternative fuels.
- Clean Fuel Fleets Program: This web site provides program implementation guidance, certified alternative fuel and clean fuel fleet vehicles/engines, tampering enforcement policy (memo 1A).
- Alternative Fuel Vehicle Project at Los Angeles Airport (LAX)
- Green Vehicle Guide: Information about environmental performance of vehicles.
- Reformulated Gasoline
- SmartWay Grow & Go: EPA developed this program to promote the environmental benefits of renewable fuels, and provide a renewable fuel component for EPA's existing SmartWay Transport Partnership. This program will help reduce U.S. dependence on petroleum, and improve our environment by reducing emissions of harmful pollutants and greenhouse gases.

Related Links to Sites External to EPA EXIT Disclaimer

- Renewable Fuels Association (RFA): The national trade association for the U.S. ethanol industry.
- National Biodiesel Board: The national trade association representing the biodiesel industry.
- American Coalition for Ethanol: A non-profit membership association devoted to promoting the increased production and use of ethanol.
- American Petroleum Institute (API: The primary trade association of the oil and natural gas industry.
- National Petrochemical and Refiners Association (NPRA): Trade association for the petrochemical and refining industries.
- National Corn Growers Association (NCGA): A national organization representing the interests of corn growers and farmers.
- National Ethanol Vehicle Coalition (NEVC): A nonprofit membership association devoted to promoting the use of 85% ethanol as a form of alternative transportation fuel.

exemption (pursuant to paragraph (h) of this section) prior to that date.

(3) For the purposes of this section, the term "refiner" shall include foreign refiners.

(b) The small refiner exemption is effective immediately, except as provided in paragraph (d) of this section. Refiners who qualify for the small refiner exemption under paragraph (a) of this section must submit a verification letter (and any other relevant information) to EPA containing all of the following information for the refiner and for all subsidiary companies, all parent companies, all subsidiaries of the parent companies, and all joint venture partners:

(1)(i) A listing of the name and address of each company location where any employee worked for the period January 1, 2004 through December 31, 2004.

(ii) The average number of employees at each location based on the number of employees for each pay period for the period January 1, 2004 through December 31, 2004.

(iii) The type of business activities carried out at each location.

(iv) For joint ventures, the total number of employees includes the combined employee count of all corporate entities in the venture.

(v) For government-owned refiners, the total employee count includes all government employees.

(2) The total corporate crude oil capacity of each refinery as reported to the Energy Information Administration (EIA) of the U.S. Department of Energy (DOE), for the period January 1, 2004 through December 31, 2004. The information submitted to EIA is presumed to be correct. In cases where a company disagrees with this information, the company may petition EPA with appropriate data to correct the record when the company submits its verification letter.

(3) The verification letter must be signed by the president, chief operating or chief executive officer of the company, or his/her designee, stating that the information is true to the best of his/her knowledge, and that the company owned the refinery as of December 31, 2004.

(4) Name, address, phone number, facsimile number, and e-mail address of a corporate contact person.

(c) Verification letters under paragraph (b) of this section must be submitted by September 1, 2007.

(d) For foreign refiners the small refiner exemption shall be effective upon approval, by EPA, of a small refiner application. The application must contain all of the elements required for small refiner verification letters (as specified in paragraphs (b)(1), (b)(3), and (b)(4) of this section), must demonstrate compliance with the crude oil capacity criterion of paragraph (a)(1)(iii) of this section, must satisfy the provisions of § 80.1165(f) through (h) and (o), and must be submitted by September 1, 2007 to one of the addresses listed in paragraph (j) of this section.

(e) A refiner who qualifies as a small refiner under this section and subsequently fails to meet all of the qualifying criteria as set out in paragraph (a) of this section will have its small refiner exemption terminated effective January 1 of the next calendar year; however, disqualification shall not apply in the case of a merger between two approved small refiners.

(f) If EPA finds that a refiner provided false or inaccurate information in its small refiner status verification letter under this subpart, the small refiner's exemption will be void as of the effective date of these regulations.

(g) If a small refiner is complying on an aggregate basis for multiple refineries, the refiner may exempt the refineries from the calculation of its Renewable Volume Obligation under § 80.1107.

(h) (1) A refiner may, at any time, waive the small refiner exemption under paragraph (a) of this section upon notification to EPA.

(2) A refiner's notice to EPA that it intends to waive the small refiner exemption must be received by November 1 in order for the waiver to be effective for the following calendar year. The waiver will be effective beginning on January 1 of the following calendar year, at which point the refiner will be subject to the renewable fuel standard of § 80.1105.

(3) The waiver must be sent to EPA at one of the addresses listed in paragraph (j) of this section.

(i) Any refiner that acquires a refinery from another refiner with approved small refiner status under paragraph (a) of this section shall notify EPA in writing no later than 20 days following the acquisition.

(j) Verification letters under paragraph (b) of this section and small refiner exemption waivers under paragraph (h) of this section shall be sent to one of the following addresses:

(1) *For U.S. Mail:* U.S. EPA—Attn: RFS Program, 6406J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

(2) *For overnight or courier services:* U.S. EPA, Attn: RFS Program, 6406J, 1310 L Street, NW., 6th floor, Washington, DC 20005.

§ 80.1143 What are the opt-in provisions for noncontiguous states and territories?

(a) A noncontiguous state or United States territory may petition the Administrator to opt-in to the program requirements of this subpart.

(b) The Administrator will approve the petition if it meets the provisions of paragraphs (c) and (d) of this section.

(c) The petition must be signed by the Governor of the state or his authorized representative (or the equivalent official of the territory).

(d)(1) A petition submitted under this section must be received by the Agency by November 1 for the state or territory to be included in the RFS program in the next calendar year.

(2) A petition submitted under this section should be sent to either of the following addresses:

(i) *For U.S. Mail:* U.S. EPA—Attn: RFS Program, 6406J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

(ii) *For overnight or courier services:* U.S. EPA, Attn: RFS Program, 6406J, 1310 L Street, NW., 6th floor, Washington, DC 20005.

(e) Upon approval of the petition by the Administrator:

(1) EPA shall calculate the standard for the following year, including the total gasoline volume for the State or territory in question.

(2) Beginning on January 1 of the next calendar year, all gasoline refiners and importers in the state or territory for which a petition has been approved shall be obligated parties as defined in § 80.1106.

(3) Beginning on January 1 of the next calendar year, all renewable fuel producers in the State or territory for which a petition has been approved shall, pursuant to § 80.1126(a)(2), be required to generate RINs and assign them to batches of renewable fuel.

§§ 80.1144 through 80.1149 [Reserved]

■ 12. Sections 80.1144 through 80.1149 are reserved.

■ 13. Sections 80.1150 through 80.1155 are added to read as follows:

Subpart K—Renewable Fuel Standard

* * * * *

Sec.

80.1150 What are the registration requirements under the RFS program?
80.1151 What are the recordkeeping requirements under the RFS program?
80.1152 What are the reporting requirements under the RFS program?
80.1153 What are the product transfer document (PTD) requirements for the RFS program?
80.1154 What are the provisions for renewable fuel producers and importers who produce or import less than 10,000 gallons of renewable fuel per year?

Advanced Biofuels Association

June 2, 2014

VIA ELECTRONIC FILING

Air and Radiation Docket and Information Center
U.S. Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Avenue Northwest
Washington, D.C. 20460

ATTENTION: Docket ID No. EPA-HQ-OAR-2012-0546

Re: [EPA-HQ-2012-0546 RIN 2060-AS21] Regulation of Fuels and Fuel Additives: 2013 Cellulosic Biofuel Standard

On behalf of the Advanced Biofuels Association, thank you for the opportunity to comment on the Environmental Protection Agency's Direct Final Rulemaking to revise the 2013 cellulosic biofuel standard.

Background on the Advanced Biofuels Association

The Advanced Biofuels Association (ABFA) is a national organization representing the new generation of advanced and renewable technologies that will help drive America's new economy by creating jobs, reducing our dependence on foreign oil and fossil fuels while fueling a sustainable future for the world. The ABFA has been a leading voice for America's domestic biofuels industry since it was established in 2009. For more information on our members please visit www.AdvancedBiofuelsAssociation.com.

Basing Renewable Volumetric Obligations on Actual Production

ABFA strongly supports EPA's decision to base the 2013 cellulosic Renewable Volume Obligation (RVO) on actual cellulosic production in 2013. It is a logical and robust step given the Agency's management of the system that tracks all RIN generating gallons: the EPA Moderated Transaction System (EMTS). This approach is something our Association has urged the EPA to adopt in our comments to the proposed 2014 Standards for the Renewable Fuel Standard [docket EPA - HQ-OAR-2013-0479]. Given the persistent uncertainty surrounding the RFS due to the difficulties in accurately projecting available quantities of cellulosic and other advanced biofuels, ABFA believes this final rule sets a fair and sustainable precedent going forward. On the one hand, we recognize that obligated parties object to the notion of having to purchase gallons of fuel that do not exist. On the other hand, it is crucial that every gallon of advanced biofuel that is made actually be utilized in the transportation fuel supply. Biofuel producers face a unique challenge in selling their products to their competitors. This Final Direct Rule by EPA helps level the playing field by increasing certainty in the marketplace.

800 17th Street, NW • Suite 1100 • Washington, DC 20006
T: 202.469.5140 • F: 202.955.5564 • W: advancedbiofuelsassociation.com

U.S. District Court of Appeals on Renewable Volumetric Obligations

ABFA believes that EPA's decision to base the 2013 cellulosic RVO on actual production upholds the U.S. District Court of Appeals' rulings on the 2013 RVOs from both January 25, 2013 and May 6, 2014. In the former case, *American Petroleum Institute v. Environmental Protection Agency*, the court directed EPA to take a "neutral aim at accuracy" in setting yearly standards. Specifically, the court stated:

> *"We do not think the text of § 7545(o)(7)(D)(i) or the general structure of the RFS program supports EPA's decision to adopt a methodology in which the risk of overestimation is set deliberately to outweigh the risk of underestimation. Section 7545(o)(7)(D)(i)'s reference to the "projected volume of cellulosic biofuel" seems plainly to call for a prediction of what will actually happen. EPA points to no instance in which the term "projected" is used to allow the projector to let its aspirations for a self-fulfilling prophecy divert it from a neutral methodology."... "[T]he most natural reading of the provision is to call for a projection that aims at accuracy, not at deliberately indulging a greater risk of overshooting than undershooting."*[1]

The Court unambiguously directed EPA to set the cellulosic mandate for each year as close to what will actually be produced as possible. By using the production figures of what was actually made in 2013, EPA employs a neutral methodology that provides assurances to both obligated parties and biofuel producers.

Furthermore, in the Court's most recent ruling on RVOs, *Monroe Energy, LLC v. Environmental Protection Agency*, the Court clarifies that EPA has "broad discretion" to balance the various pools within the RFS mandate, so long as there are sufficient available RINs for obligated parties to meeting their fuel blending requirements, irrespective of what RIN prices are:

> *"But so long as sufficient RINs exist for obligated parties to meet the fuel standards, the court has no ground to conclude the 2013 standards are unlawful simply because RINs are costlier than in prior years, especially as high RIN prices should, in theory, incentivize precisely the sorts of technology and infrastructure investments and fuel supply diversification that the RFS program was intended to promote."*[2]

Because EPA has set the final cellulosic blending requirement for 2013 on the RINs actually produced in 2013, there is clearly no shortfall in available RINs for obligated parties. Crucially, the Court acknowledges the role that RIN values play in incentivizing the RFS's energy security and environmental objectives. Were the cellulosic mandate to be set below actual production, it would undermine Congressional intent and the Court's interpretation of the statute.

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[1] *American Petroleum Institute v. Environmental Protection Agency*, 43 ELR 20026. No. 12-1139, (D.C. Cir., 01/25/2013).

[2] *Monroe Energy, LLC v. Environmental Protection Agency*, 44 ELR 20100. No. 13-1265, (D.C. Cir., 05/06/2014).

Conclusion

ABFA supports EPA's decision to use actual cellulosic production in 2013 to set the mandate for 2013. Our Association believes that this approach is both in accordance with the Congressional intent of the RFS and the legal interpretations provided by the U.S. Court of Appeals. We also see this approach providing a fair and sustainable path forward, given the persistent uncertainty that has surrounded the RFS in recent years for both biofuel producers and obligated parties. By using actual production figures to set yearly standards, the EPA should also be able to issue official blending requirements in a timelier manner than in years past.

We appreciate the opportunity to provide these comments and stand ready to answer any and all questions the Environmental Protection Agency may have. We are happy to make ourselves available to meet with you at your convenience to discuss these comments. Thank you.

Sincerely,

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June 2, 2014

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue
Washington, D.C.

RE: 2013 Renewable Fuel Standard for Cellulosic Biofuel
Docket No. EPA-HQ-OAR-2012-0546

Dear Administrator McCarthy:

The American Fuel & Petrochemical Manufacturers ("AFPM")[1] is writing in support of the Environmental Protection Agency's ("EPA" or the "Agency") direct final rule entitled *Regulation of Fuels and Fuel Additives: 2013 Cellulosic Biofuel Standard* ("DFR").[2] On October 10, 2013, AFPM filed a petition for reconsideration and a petition for partial waiver of the 2013 cellulosic standard. AFPM's petition asked EPA to examine EMTS cellulosic biofuel production data and issue a waiver representing the difference between the promulgated 2013 cellulosic biofuel standard and the amount of cellulosic RINs available for compliance at the conclusion of the 2013.

The DFR amends the 2013 cellulosic standard to reflect actual production and avoids the problem caused by an inadequate domestic supply of cellulosic biofuel RINs. AFPM is pleased that the Agency granted its request to reduce the 2013 cellulosic volume to an amount equal to the cellulosic biofuel actually produced in 2013 (*i.e.*, 810,185 RINs). AFPM supports the revised cellulosic RFS for 2013 of 0.0005%. **This letter does not convey an adverse comment on the regulatory text adjusting the cellulosic biofuel standard**.

Although AFPM supports the adjusted cellulosic RFS, it respectfully disagrees with certain statements and methodologies used by the Agency in support of the revision. Specifically, it is inconsistent with the Clean Air Act and EPA guidance for the Agency to adjust RFS to account for small refinery exemptions granted *during* or *after* a compliance period. Nor is it appropriate for EPA to rely on EIA fuel consumption projections made after the start of a

[1] The American Fuel & Petrochemical Manufacturers is a national trade association representing virtually all U.S. refiners and petrochemical manufacturers. AFPM's refinery members operate 122 U.S. refineries comprising approximately 98% of U.S. refining capacity. AFPM members are obligated parties under the RFS.

[2] EPA promulgated a revision of the 2013 Renewable Fuel Standards in a direct final rule at 79 *Federal Register* 25025 (May 2, 2014). The Agency also published a proposal at 79 *Federal Register* 25074 (May 2, 2014).

compliance year. In this particular rule, the resulting cellulosic RFS did not materially differ due to these errors and therefore we are not submitting adverse comments. However, AFPM shares these concerns about EPA's statements and methodologies to allow the agency to give them due consideration going forward in the hope of avoiding disputes over the methodology and data in the future.

A. *Consideration of Small Refiner Exemptions in Calculating the RFS*

We are concerned that the Agency arrived at the correct cellulosic standard for 2013 (0.0005%) using an incorrect calculation. We explained the correct procedure in our petition for reconsideration.[3] EPA should have used gasoline and diesel volumes in the denominator assuming no small refiner/refinery exemptions for 2013 because the exemptions were granted after the beginning of the compliance period (January 1, 2013). Instead, EPA removed 1.48 billion gallons in the denominator when calculating the new cellulosic standard for 2013, representing exemptions for three small refineries.[4] Small refiner/refinery exemptions approved after the start of the compliance period must be excluded from the calculation of RFS percentages issued after the beginning of the compliance period.

In 2013, obligated parties had to estimate their RFS obligations because the final rule was issued after the start of the annual compliance period. The same is true for 2014.[5] This regulatory uncertainty is exacerbated by a lack of information regarding how many small refiner/refinery exemptions EPA will grant and how the exemptions will affect the RFS percentages when issued. In this regard, the DFR announced for the first time on May 2, 2014, that EPA had granted three small refiner exemptions after the beginning of the 2013 compliance year and factored these into the 2013 cellulosic biofuel standard. The Agency acknowledges that this issue is the subject of pending litigation. Because EPA's revision to the 2013 cellulosic biofuel standard (*i.e.*, 0.0005%) is unaffected by these specific exemptions, AFPM is **not** submitting a negative comment on the DFR; however, AFPM continues to object to this methodology as contrary to the Agency's stated goal of ensuring regulatory certainty.[6]

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[3] EPA should have set GE_{2013} and DE_{2013} both equal to zero because there were no exemptions granted for 2013 as of January 1, 2013.

[4] *See* Table IV.B.3-1, 79 *Federal Register* at 25029 (GE = 0.82 bg. DE = 0.66 bg.).

[5] The 2014 RFS was proposed on November 29, 2013, and to date no final rule has been sent to the Office of Management and Budget for review under Executive Order 12866.

[6] In the 2013 RFS final rule, EPA stated that "any requests for exemption that are approved after the release of today's final rulemaking will not affect the 2013 standards." 78 *Federal Register* at 49,825.

B. *Use of Revised EIA Data*

The DFR uses revised EIA data from March 2014 to calculate the 2013 cellulosic biofuel standard. Given the small amount of cellulosic RINs, the use of the 2014 revised EIA data does not alter the calculation of the cellulosic RFS. For this reason, AFPM is **not** filing a negative comment on the DFR. EPA's use of revised EIA data provided after the start of a compliance year undermines regulatory certainty and injures obligated parties. EPA must implement a methodology that provides and maintains regulatory certainty prior to the beginning of the RFS compliance period. The best way to achieve this goal is for EPA to issue RFS rules in accordance with the prescribed statutory deadlines.

* * * * *

We appreciate the agency's efforts and support the revised 2013 cellulosic RFS. Thank you for the opportunity to express our concerns about EPA's tardiness in promulgating RFS rules and its revision of data comprising the denominator of the RFS percentage calculations after the beginning of the compliance year. These issues undermine the regulatory certainty Congress intended under the Clean Air Act.

AFPM looks forward to working with the Agency to address these concerns.

Respectfully submitted,

Richard Moskowitz

c: Janet McCabe
Christopher Grundler

Biotechnology Industry Organization

June 2, 2014

The Honorable Gina McCarthy
Administrator, Environmental Protection Agency
Air and Radiation Docket and Information Center
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Docket ID No. EPA-HQ-OAR-2012-00546

Dear Administrator McCarthy:

I. Introduction

The Biotechnology Industry Organization ("BIO") is pleased to provide comments on the U.S. Environmental Protection Agency's ("EPA") May 2, 2014 proposed rule on the 2013 cellulosic biofuel standard[1] that was finalized in "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards (RFS); Final Rule[2]." Please note these comments are not in response to EPA's Direct Final Rule also issued on May 2, 2014[3].

BIO is the world's largest trade association representing biotechnology companies, academic institutions, state biotechnology centers and related organizations across the United States and in more than 30 other nations. BIO members are involved in the research and development of innovative healthcare, agricultural, industrial and environmental biotechnology products.

BIO represents nearly 90 companies leading the development of new technologies for producing conventional and advanced biofuels. Through the application of industrial biotechnology BIO members are improving conventional biofuel processes, enabling advanced and cellulosic biofuel production technologies and speeding development of new purpose grown energy crops.

II. EPA should not view this revision as precedent for future years

EPA is proposing these revisions to the cellulosic biofuel standard of the 2013 RFS in response to petitions it received from the American Fuel and Petrochemical Manufactures (AFPM) and the American Petroleum Institute (API) in October 2013. While EPA determined

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[1] Regulation of Fuels and Fuel Additives: 2013 Cellulosic Biofuel Standard, 79 Fed. Reg. 85, 25074 (May 2, 2014) (available at: http://www.gpo.gov/fdsys/pkg/FR-2014-05-02/pdf/2014-10134.pdf)

[2] Regulation of Fuels and Fuel Additives: 2013 Cellulosic Biofuel Standard, 78 Fed. Reg. 158, 49794 (Final Rule Aug. 15, 2013) (to be codified at 40 C.F.R. pt. 80) (available at: http://www.gpo.gov/fdsys/pkg/FR-2013-08-15/pdf/2013-19557.pdf) [hereinafter *Final Rule*].

[3] Regulation of Fuels and Fuel Additives: 2013 Cellulosic Biofuel Standard, 79 Fed. Reg. 85, 25025 (Direct final rule May 2, 2014) (to be codified at 40 C.F.R. pt. 80) (available at: http://www.gpo.gov/fdsys/pkg/FR-2014-05-02/pdf/2014-10135.pdf) [hereinafter *Direct Final Rule*].

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that the petitions for reconsideration with regard to the 2013 cellulosic biofuel standard had demonstrated the statutory criteria specified in Section 307(d)(7)(B) of the Clean Air Act for the reconsideration, due to the anticipated cellulosic biofuel production in 2013, BIO urges the Agency not to make this type of revision a precedent.

The cellulosic biofuel standard is the main driver for cellulosic biofuel producers who have made commercial progress and are moving toward rapid commercial scale up. This policy is driving not only the development of liquid fuels, but also more efficient and value added products from the biorefinery process, such as renewable chemicals. To date, industrial biotechnology companies have invested more than $6.0 billion in private capital here in the U.S. This includes the five cellulosic biofuel facilities EPA projects to produce commercial gallons of cellulosic biofuels in 2014 and an increasing number of renewable chemical facilities.

The biggest concern BIO member companies have is inconsistent regulatory policy undercutting investment and impeding the progress of cellulosic biofuels. While BIO encourages the EPA to get the most accurate number possible in setting cellulosic biofuel volumes, we urge the Agency to be cautious in making adjustments that create an inconsistent regulatory climate that will undercut investment and undermine the development of cellulosic biofuels just as they are set to produce millions of commercial gallons and launch a rapid scale up. If EPA continues to adjust the cellulosic volumes based solely off the comments of obligated parties who have shown an unwillingness to make use of these fuels, it risks signaling to biofuel producers and their investors there will be little to no market for cellulosic biofuels poised to come onto the market in the near future.

BIO would encourage EPA to follow United States Court of Appeals for the District of Columbia Circuit ruling in the January 2013 *API v. EPA*[4] ruling and "take a neutral aim for accuracy" when setting the annual RFS cellulosic volumes.

III. EPA should consult with cellulosic biofuel producers to get the most accurate projection in setting its cellulosic volumes in its annual rulemaking and projections

As BIO laid out in its comments on the Proposed Rule on the 2014 Standards for the RFS Program[5], when setting the cellulosic RVO, EPA each year conducts a careful survey of the production intentions of commercial-scale cellulosic biofuel producers in the United States. EPA's neutral methodology based on these direct discussions with producers generates the best available projection of what will actually happen in the market during the coming year.

EPA determined that reconsideration of the cellulosic biofuel standard was necessary due to a reduced estimate of anticipated cellulosic biofuel production in 2013 that was announced shortly after EPA signed its final rule by one of two companies expected to produce cellulosic biofuel in 2013. BIO encourages EPA to continue to hold discussions with the identified producers to update these projections to be as accurate as possible in the final rule. Additionally, EPA should hold discussions with identified foreign cellulosic biofuel

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[4] *API v. EPA*, No. 12-1139 at 9 and 14 (D.C. Cir. filed Jan. 25, 2013).

[5] 2014 Standards for the Renewable Fuel Standard Program, 78 Fed. Reg. 230, 71732 (proposed Nov. 29, 2013) (to be codified at 40 C.F.R. pt. 80) (available at: http://www.gpo.gov/fdsys/pkg/FR-2013-11-29/pdf/2013-28155.pdf) [hereinafter *The Proposed Rule*].

producers and with producers awaiting pathway approvals to assess their intentions and include them as appropriate in setting the cellulosic requirement.

IV. EPA should bring more cellulosic biofuels to the market by improving its timeliness on cellulosic biofuel pathway approvals as well as its annual rulemaking

Looking ahead to the 2014 cellulosic biofuel volumes, EPA has excluded from its 2014 projection all foreign producers of cellulosic biofuel, even though it has identified four facilities that are complete or will be complete during 2014 and that have approved pathways for generating RINs. EPA should work with these companies to complete the registration process for the facilities in an expedient manner, enabling them to contribute volumes to meet the 2014 Renewable Volume Obligations (RVOs). EPA's exclusion of the facilities from the 2014 RVOs discourages these companies from both completing the registration process and exporting volumes to the U.S. fuel market. The lower RVOs thus become a self-fulfilling prophecy. EPA should include these companies in the same neutral methodology it uses for projecting domestic commercial production.

EPA has also excluded volumes of cellulosic biofuels from pathways that have yet to be approved. In the past four years, EPA has completed only 42 percent of the petitions it has received for new renewable fuel pathways under the RFS. On average, all biofuel companies have had to wait an average of 17 months for approval of new pathways under the RFS; while companies filing cellulosic biofuel pathway petitions have faced the longest wait times – on average 24 months. Currently, more than 36 petitions are still awaiting action – either approval or denial – and the average time that all pending petitioning companies have waited currently exceeds 19 months. These delays have slowed deployment of new advanced biofuel technologies.

This exclusion could chill investment for the identified companies and discourage these companies – and others – from completing the lengthy approval process for pathways and renewable fuel producers. For example, the National Waste & Recycling Association and the Solid Waste Association of North America contend if proposed changes to RFS pathways occur to allow landfill gas dedicated to transportation fuel to qualify as a cellulosic biofuel, there will be substantially greater volume of Cellulosic Biofuel available than is currently proposed.[6] EPA runs the risk of creating a self-fulfilling prophecy in setting the annual obligations below achievable volumes, while continuing to keep some volumes from reaching the market. EPA should anticipate the timely approval of pathways and registration processes and include in the 2014 RVO all possible volumes from companies that intend to begin producing during the year.

In addition to approving cellulosic biofuel pathways in a timely manner, EPA should seek to eliminate uncertainty about cellulosic biofuel volumes by completing timely rulemakings. Setting the annual RFS volumes will help give producers a better sense in reporting their estimated productions for cellulosic biofuels and give obligated parties a better anticipation of what fuels will be available for blending.

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[6] Kneiss, S and Skinner, J. National Waste & Recycling Association and Solid Waste Association Comments on Docket ID No. EPA-HQ-OAR-2013-0479. Submitted Jan. 28, 2014 (Appendix LXV)

V. Conclusion

BIO members are improving conventional biofuel processes, enabling cellulosic biofuel production technologies and speeding development of new purpose grown energy crops. Our membership includes four companies EPA cites in its proposed rule for the 2014 RFS as producing commercial gallons of cellulosic biofuels in 2014[7]. We are confident the biofuels industry can meet future cellulosic biofuel obligations under the RFS for 2014 and beyond, but only if the RFS is allowed to function in a manner that provides certainty to biofuel producers and their investors. As EPA finalizes the revision to the 2013 cellulosic biofuel standard, BIO encourages EPA to avoid making this precedent setting, work with cellulosic biofuel producers in setting the most accurate projections for future years, and bring more regulatory certainty by approving pending cellulosic biofuel pathways and issuing the annual RFS volumes in a timelier manner.

Sincerely,

Brent Erickson
Executive Vice President
Biotechnology Industry Organization

[7] *Visible Progress in Biorefinery Commercialization, Industrial Biotech Companies Show Progress in Commercialization,* Biotechnology Industry Organization, Jun. 15, 2012, available at: http://www.bio.org/articles/visible-progress-biorefinery-commercialization (Appendix I)

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Re: Control of Air Pollution From Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards, 78 Fed. Reg. 29816 (May 21, 2013). EPA Docket EPA–HQ–OAR–2011–0135

Dear Ms. Iffland:

The following comments regarding EPA's Tier 3 proposal are submitted on behalf of Shell Oil Products US, Shell Trading US Company, Shell Chemical Company, and Motiva Enterprises, LLC. (Collectively, Shell and Motiva). Shell and Motiva will be obligated parties under the proposed rules and therefore have a significant and direct interest in this proposal.

We participated in the drafting of the joint comments filed by the American Petroleum Institute (API) and the American Fuel and Petrochemical Manufacturers association (AFPM) and generally support those comments. We are writing here separately to highlight a few issues.

I. EPA Has Not Proposed Sufficient Lead Time

EPA is proposing to make the 10 ppm annual average gasoline sulfur standard effective on January 1, 2017. Assuming that EPA issues the final rule by the end of 2013, that leaves only three years of lead time. We urge EPA to provide additional lead time. Three years is simply not enough time to allow obligated parties to adequately plan and implement the changes that will be necessary to reduce sulfur from the current 30 ppm annual average standard to the 10 ppm standard. It also does not allow refiners to optimize their plans and to integrate the necessary changes into existing turn-around and maintenance plans. The result of such a

rushed implementation is likely to be higher compliance costs, which could translate in to higher prices for consumers.

Furthermore, as explained in more detail in the API/AFPM comments, a January 1, 2017 implementation date is not necessary to achieve EPA's stated objectives. EPA asserts that the lower sulfur levels are necessary to help heavy duty vehicles meet the vehicle emission standards over their useful life, yet those vehicle standards are not even effective until the 2018 model year, and various other provisions from the phase-in of the vehicle standards to the small refiner/refinery exemption demonstrate that the January 1, 2017 implementation date is not necessary.

II. EPA Should Maintain the Per-Gallon Sulfur Cap at 80 ppm

EPA proposes to leave the refinery per-gallon gasoline sulfur specification at 80 ppm, but is also considering lowering the per-gallon specification to 50 ppm effective in 2020. EPA should not change the refinery per-gallon sulfur specification from the existing 80 ppm.

A tighter per gallon sulfur cap will result in less flexibility and could lead to supply reductions. Maintaining the per-gallon cap would provide important flexibility in the event of planned or unplanned upsets, unit turnarounds or unit shutdowns, which can result in elevated sulfur levels. If the per-gallon cap is too low, it could result in lost volumes of gasoline during such events.

Another advantage of maintaining the current per gallon sulfur cap standard is that it allows current transmix operations to continue. Transmix that occurs from pipeline shipping accounts for only a small amount of gasoline consumption and most transmix batches of gasoline are approximately only 10 ppm above the current 30-ppm refinery sulfur average. This indicates that sulfur content in transmix is relatively small, even in the context of current refinery annual average sulfur standard

III. EPA Should Change the Vehicle Certification Fuel to E10

EPA is proposing to change the vehicle certification fuel to E15. We agree it is appropriate for EPA to change the vehicle certification fuel from the current E0, since over 90% of all gasoline in the United States is now blended with ethanol, but believe that EPA should change it to E10 rather than E15. As required by section 202(h) of the Clean Air Act, EPA's regulations should require that the certification fuel reflect the fuel that is generally available in the market. Section 202(h) required EPA to update its regualtions to ensure that "vehicles are tested under circumstances which reflect the actual current driving conditions under which motor vehicles are used, including conditions relating to fuel, temperature, acceleration, and altitude." As this relates to fuel, it clearly calls for EPA to use E10, not E15 as the certification fuel.

It is unlikely that E15 use will expand to the degree that EPA suggests in the proposal. EPA fails to consider that notwithstanding its approval of E15, the automobile manufacturers do not support E15 use in the current fleet and E15 is not compatible with the infrastructure at the majority of retail gasoline stations. Studies by the Coordinating Research Council also indicate that E15 can damage even 2001 and newer vehicles.

IV. EPA should allow all "refiners," Including Gasoline Blenders, To Participate in the Credit Generation Program

We generally support EPA's proposed averaging, banking and trading provisions. These provisions provide important flexibility that should help the industry reduce compliance costs. We do not agree, however, with one of the restrictions that EPA proposes – only refineries that process crude oil are eligible to generate credits. That is an unnecessary limitation that unfairly excludes gasoline blenders. If a gasoline blender – classified as a refiner under EPA's rules – is able to secure low sulfur blend stocks and supply lower sulfur gasoline to the market, EPA should encourage it. By not allowing gasoline blenders to generate credits, EPA is unnecessarily foregoing the emission reductions that could result from such parties supplying lower sulfur gasoline and it deprives the entire industry of credits that could help the entire industry meet EPA's aggressive compliance schedule.

V. EPA Should Not Exempt Small Refiners/Refineries

EPA proposes to exempt both small refiners and small refineries until 2020. Shell disagrees and urges EPA to not pick winners and losers in the market place and allow all refiners and refineries to compete on a level playing field.

In any event, if EPA does provide a small refinery/small refiner exemption, it should not be limited solely to refiners that process crude oil. As explained above regarding credit generation, EPA should treat the obligated parties fairly and extend this same treatment to gasoline blenders, which are classified as refiners under EPA's rules, even though they do not process crude oil.

VI. The Regulatory Streamling Provisions Need Adjustments

a. Reporting Requirements

The preamble, under the Reporting Requirements section, 78 Fed. Reg. 29942, proposes denatured fuel ethanol batch reports to include properties and volume effective January 1, 2017. It is suggested that 40 CFR 80.1451 be amended to include the requirements of this additional reporting and 40CFR 80.1464 be amended to include attestation engagement procedures for this additional reporting. In this way, there is consistency with both ethanol and gasoline batch reports on how they are reported and attested.

In regards to Amendments Related to Reporting 78 Fed. Reg. 29949, we concur with the proposal to adjust and be consistent with reporting dates for various EPA programs. However, with the annual reporting date being moved from February 28 to March 31, the attestation engagement reporting date needs to be adjusted also. Currently, the attestation engagement report is due May 31 and we recommend the due date be changed to June 30 in order to continue to provide 3 months between the due dates of the annual report and the attestation engagement report. As proposed, a timeframe of two months between the annual report due date and attestation engagement report due date is too short of a time period.

EPA requested comment on Amendments Related to RFS2 Annual Report Date,78 Fed. Reg. 29952, specifically the date to be able transfer RINs in EMTS for satisfying RVOs for the previous compliance year. We request that the ability to transfer RINs in EMTS for satisfying RVOs under the previous compliance year be extended to March 31 to coincide with the proposed annual report date for other EPA programs.

b. Performance Based Measurement Systems (PBMS)

In general, we support the PBMS concept. We do believe, however, that in some ways the proposal is uncessarily complicated and should be simplified.

The Agency requested comments on several items. For Agency Approval of Only Non-VCSB Methods, 78 Fed. Reg. 29964, we concur that only Non-VCSB methods need agency approval for method-defined parameters and absolute fuel parameters. Documentation should be submitted to the agency only for non-VCSB methods for qualifications for method-defined parameters and absolute fuel parameters.

In regards to qualification of test methods, id., we believe the Agency should not require qualification of all analytical test methods for the fuel parameters in 40 CFR 80. We agree with the proposal to exempt existing (in use for six months prior to publication of the proposal) installations of designated test methods that are method-defined parameters from the qualification requirement. We also agree with the proposed 40CFR 80.47(b)(3) to exempt existing (in use for six months prior to publication of the proposal) installations of D2622 from the accuracy and precision qualification requirements.

In the proposed 40 CFR 80.47(k)(2), pertaining to criteria for reference installations, it mentions the use of an industry monthly inter-laboratory crosscheck program. In order to have the option to use other crosscheck programs besides ASTM, we recommend that the criteria for the reference installations refer to the use of a commercially available monthly inter-laboratory crosscheck program.

c. Registration

There is an inconsistency between the preamble, 78 Fed. Reg. 29942, and the proposed regulations in 40 CFR 80.1650 pertaining to registration. In the proposed registration regulations in 40 CFR 80.1650 (a)(1), we recommend that the phrase "unless already registered under 80.76 or 80.103" be added so that new registrations are not required. Similarly, for 40 CFR 80.1650 (a) (3), we recommend that the phrase "unless already registered under 80.76" be added so that new registrations are not required. These changes would be consistent with the preamble on page 311 – "Most refiners, importers, and ethanol producers are currently registered with EPA under other 40 CFR part 80 fuels programs. We are proposing that those who are already registered would not have to register again.".

VII. Mid-level Ethanol blends/E85

In the preamble and in a separate document entered in to the docket (April 8, 2013 memorandum from Jeff Herzog, "Possible Approach to Fuel Quality Standards for Fuel Used in Flexible-Fuel Automotive Spark-Ignition Vehicles (FFVs)") EPA discusses potentially regulating -83 and E15-50. In general, we agree that these fuels should be regulated similar to gasoline. As it is, these fuels are essentially exempt from the sulfur, benzene, and detergent additive requirements that apply to gasoline.

The following identifies numerous specific issues in the provisions included in the Herzog memo, and makes recommendations to address those issues. Of the issues discussed below, one is particularly noteworthy. The suggested benzene level for E51-85 of 0.2 vol% is too low and is not consistent with the existing benzene specifications for gasoline. If EPA proceeds with this, it will essentially require specialized blendstocks with lower benzene levels to produce E51-85.

a. 80.2 Definitions

- New paragraph 80.2(cccc), which will provide the definition for E51-83, includes the reference to the ASTM D5798-11 standard for ethanol fuel blends for FFV's. This reference should be updated to reflect the currently published version ASTM D5798-13 and should be updated further if a newer version is adopted by ASTM.

b. 80.1601 Fuels subject to the provisions of this Subpart

- EPA proposes adding item 80.1601(a)(4) to explicitly include E51-83 as being subject to the provisions of Subpart O regarding gasoline sulfur. However, we do not see an explicit addition to also include E16-50. Assuming EPA believes Subpart O regarding gasoline sulfur should also apply to E16-50, then E16-50 should explicitly also be listed in 80.1601(a).

- Under, 80.1601(b)(2), "California gasoline as defined in §80.1600 subject to the provisions of §80.1654" is not subject to the standards and requirements of Subpart O. Do the requirements of Subpart O apply to E51-83 and/or E16-50 sold in California? And if so, how do they apply?

c. 80.1608 Standards and requirements for E51-83

- Apart from the compliance dates for the new sulfur levels via the requirements in 80.1603(a)(2), paragraph 80.1608 does not specify an effective date for the standards and requirements for E51-83. EPA needs to insert a clear effective date for all of the standards and requirements for E51-83 in 80.1608. We infer this is sometime in 2017, but ask that EPA specify the effective date in the regulation.

- 80.1608(b)(2) as proposed sets the maximum benzene content of each batch of E51-83 at 0.20 volume percent maximum. This benzene limit is too low, because it is inconsistent with EPA's clear intent to allow E51-83 blenders to manufacture E51-83 using gasoline, gasoline blendstocks for oxygenate blending, denatured fuel ethanol, natural gas liquids, and/or butane per 80.1611.

- As an example, per 80.1611, E51-83 can be made from compliant RFG and compliant denatured fuel ethanol. In this case with:

  - the benzene content of E10 RFG being up to 1.30 vol% benzene and
  - the amount of E10 RFG in the blend potentially being as much as ~53 vol% of the total fuel recipe (resulting in a final blend containing 51% pure ethanol),

  the final E51-83 made using RFG may contain up to ~0.69 vol% benzene. However, this would conflict with EPA's proposed 0.20 vol% benzene limit for E51-83. The benzene content of the E51-83 may be even higher when conventional gasoline is used in the E51-83 recipe instead of RFG (or RBOB). EPA needs to eliminate the explicit benzene limit in E51-83 when a blender manufactures this fuel under the provisions of 80.1611. Otherwise, EPA needs to increase the explicit benzene limit to reflect EPA's intent to allow E85 production using compliant RFG, RBOB, CG, and/or CBOB.

- Section 80.1608(b)(4) listing the RVP requirements for E51-83 contains the typographical error "80.1627(a)(2)" when "80.27(a)(2) is intended by EPA. The EPA intended language should be:

  "The Reid vapor pressure of each batch of E51-83 must comply with the same standards applicable for gasoline in §80.~~16~~27(a)(2).

- EPA should clarify that section 80.1608(b)(4), which would require that "each batch" of E51-83 must comply with same standards applicable for gasoline in 80.27(a)(2), only applies to E51-83 blenders (and refiners, importers, distributors, resellers, and carriers). If EPA also intends for the RVP requirements to be applicable during the "high ozone season" from June 1st through September 15th of each year at retail sites as well, then EPA has to recognize and address the potentially far slower turnover of E51-83 inventory at retail sites (relative to gasoline) may make an RVP requirement at retail sites infeasible and dissuade retailers from offering E51-83. EPA should note that ASTM recognized and addressed this issue of potentially slow moving E51-83 at retail sites by exempting the E51-83 at a retail site from ASTM's seasonal rvp requirements in ASTM's "E51-83" standard D5798 Table 2 with note1 as follows (emphasis added),

  > "This schedule, subject to agreement between the purchaser and the seller, denotes the vapor pressure class of the *fuel at the time and place of bulk delivery to fuel-dispensing facilities for the end user*. Shipments should anticipate this schedule."

- 80.1608(c)(3) provides the benzene standard for E51-83 when it is manufactured by a party that does not qualify as an E51-83 blender:

  - Similar to our comments regarding the 0.20 vol% benzene limit for E51-83 blenders in 80.1608(b)(2) being too low. 0.20 vol% benzene listed in 80.1608(c)(3) for E51-83 "refiners" is also too low and should be revised consistent with our recommendations for E51-83 blenders.

  - We believe "80.1632" is a typographical error with regard to the test requirements for benzene in E51-83 produced by a "refiner". We believe EPA means and should correct this to "80.1630" which deals with test requirements. At this time no section 80.1632 appears proposed or intended by EPA.

d. 80.1611 Blended E51-83 requirements:

- EPA needs to insert a clear effective date for the blended E51-83 requirements in 80.1611. We infer this is sometime in 2017, but request that EPA specify the effective date.

- As proposed by EPA, 80.1611(a) and (b) require that only RFG or RBOB be used as the gasoline or gasoline blendstock for oxygenate blending in E51-83 intended for sale in RFG areas. EPA has not provided a basis for this limitation based on air quality impact. Absent EPA providing a reasonable basis, these requirement should

be deleted from EPA's proposed rules, allowing conventional gasoline and/or CBOB to be used as well for E51-83 in RFG areas.

e. **80.1612 Standards and requirements for natural gas liquids blendstock used by E51-83 blenders**

- 80.1612(b) as proposed includes a prohibition on using E51-83 made from NGL in a blend with gasoline to make E16-50. We do not understand EPA's logic in this prohibition and ask that EPA explain its reasoning further.

f. **80.1662 Liability for violations under Subpart 0**

- For a sulfur cap standard violation in 80.1660(b), paragraph 80.1662(a)(5) includes a branded refiner/importer liability as follows (emphasis added):

> " Branded refiner/importer liability. Any refiner or importer whose corporate, trade, or brand name, or whose marketing subsidiary's corporate, trade, or brand name *appeared at a facility* where a violation of §80.1660(b) occurred, is deemed in violation of §80.1660(b)."

However, this branded refiner/importer liability is too broad when EPA is now proposing to further expanded the sulfur cap requirements in 80.1660(b) to include E16-50 and E51-83 fuels sold at retail sites where the branded refinery has no control on the retailer who might independently make these product offerings from sources of his/her own choosing. Branded refiners should not be liable in these cases simply because their brand name "appeared at a facility", especially in the case where the branded refiner contractually required the retailer to identify at the dispenser that the E16-50 or E51-83 in question was not a branded product.

IX Detergent Additive Requirements for E51-85

The Herzog memo discusses detergent additives for E51-85. EPA is seeking comment on the amount (if any) of detergent additive needed.

The EPA proposed regulation for E85 (51% to 83% pure ethanol) and Mid-Level Ethanol blends (16% to 50% pure ethanol), for use only in Flex Fuel Vehicles states:

> "Stakeholders have stated that as additive concentration diminishes due to dilution with DFE, there is a point where the presence of a deposit control additive ceases to be beneficial and can actually contribute to deposit formation. In light of this, it may be appropriate to remove the requirement that the gasoline portion of E51-83 and perhaps E16-50 must contain a deposit control additive until the specific deposit control needs of these blends can be evaluated".

There is evidence that unadditized E85 generates deposits on inlet valves. There is also evidence that the use of additives in E85 helps to remove inlet valve deposits. Therefore, we recommend that EPA maintain the approach taken in the current deposit control regulations which require that the gasoline portion of E51-83 and E16-50 must contain a certified deposit control additive at a concentration at least as great as that used during gasoline deposit control additive certification testing (referred to as the Lowest Additive Concentration or LAC). If EPA should decide to pursue changes to the current approach, we recommend that EPA initiate a stakeholder process to vet the issues.

* * *

Shell appreciates the opportunity to comment on EPA's proposed Tier 3 regulations. If you should have any questions concerning these comments, please feel free to contact me at 713.230.5147 or John.Reese@Shell.com.

Sincerely,

John E. Reese
Downstream Policy & Advocacy Mgr., NA

Cc: *A-and-RDocket@epamail.epa.gov*. Docket: EPA–HQ–OAR–2011–0135
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June 2, 2014

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue
Washington, D.C.

RE: 2013 Renewable Fuel Standard for Cellulosic Biofuel
Docket No. EPA-HQ-OAR-2012-0546

Dear Administrator McCarthy:

The American Fuel & Petrochemical Manufacturers ("AFPM")[1] is writing in support of the Environmental Protection Agency's ("EPA" or the "Agency") direct final rule entitled *Regulation of Fuels and Fuel Additives: 2013 Cellulosic Biofuel Standard* ("DFR").[2] On October 10, 2013, AFPM filed a petition for reconsideration and a petition for partial waiver of the 2013 cellulosic standard. AFPM's petition asked EPA to examine EMTS cellulosic biofuel production data and issue a waiver representing the difference between the promulgated 2013 cellulosic biofuel standard and the amount of cellulosic RINs available for compliance at the conclusion of the 2013.

The DFR amends the 2013 cellulosic standard to reflect actual production and avoids the problem caused by an inadequate domestic supply of cellulosic biofuel RINs. AFPM is pleased that the Agency granted its request to reduce the 2013 cellulosic volume to an amount equal to the cellulosic biofuel actually produced in 2013 (*i.e.*, 810,185 RINs). AFPM supports the revised cellulosic RFS for 2013 of 0.0005%. **This letter does not convey an adverse comment on the regulatory text adjusting the cellulosic biofuel standard**.

Although AFPM supports the adjusted cellulosic RFS, it respectfully disagrees with certain statements and methodologies used by the Agency in support of the revision. Specifically, it is inconsistent with the Clean Air Act and EPA guidance for the Agency to adjust RFS to account for small refinery exemptions granted *during* or *after* a compliance period. Nor is it appropriate for EPA to rely on EIA fuel consumption projections made after the start of a

[1] The American Fuel & Petrochemical Manufacturers is a national trade association representing virtually all U.S. refiners and petrochemical manufacturers. AFPM's refinery members operate 122 U.S. refineries comprising approximately 98% of U.S. refining capacity. AFPM members are obligated parties under the RFS.

[2] EPA promulgated a revision of the 2013 Renewable Fuel Standards in a direct final rule at 79 *Federal Register* 25025 (May 2, 2014). The Agency also published a proposal at 79 *Federal Register* 25074 (May 2, 2014).

compliance year. In this particular rule, the resulting cellulosic RFS did not materially differ due to these errors and therefore we are not submitting adverse comments. However, AFPM shares these concerns about EPA's statements and methodologies to allow the agency to give them due consideration going forward in the hope of avoiding disputes over the methodology and data in the future.

A. *Consideration of Small Refiner Exemptions in Calculating the RFS*

We are concerned that the Agency arrived at the correct cellulosic standard for 2013 (0.0005%) using an incorrect calculation. We explained the correct procedure in our petition for reconsideration.[3] EPA should have used gasoline and diesel volumes in the denominator assuming no small refiner/refinery exemptions for 2013 because the exemptions were granted after the beginning of the compliance period (January 1, 2013). Instead, EPA removed 1.48 billion gallons in the denominator when calculating the new cellulosic standard for 2013, representing exemptions for three small refineries.[4] Small refiner/refinery exemptions approved after the start of the compliance period must be excluded from the calculation of RFS percentages issued after the beginning of the compliance period.

In 2013, obligated parties had to estimate their RFS obligations because the final rule was issued after the start of the annual compliance period. The same is true for 2014.[5] This regulatory uncertainty is exacerbated by a lack of information regarding how many small refiner/refinery exemptions EPA will grant and how the exemptions will affect the RFS percentages when issued. In this regard, the DFR announced for the first time on May 2, 2014, that EPA had granted three small refiner exemptions after the beginning of the 2013 compliance year and factored these into the 2013 cellulosic biofuel standard. The Agency acknowledges that this issue is the subject of pending litigation. Because EPA's revision to the 2013 cellulosic biofuel standard (*i.e.*, 0.0005%) is unaffected by these specific exemptions, AFPM is **not** submitting a negative comment on the DFR; however, AFPM continues to object to this methodology as contrary to the Agency's stated goal of ensuring regulatory certainty.[6]

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[3] EPA should have set GE_{2013} and DE_{2013} both equal to zero because there were no exemptions granted for 2013 as of January 1, 2013.

[4] *See* Table IV.B.3-1, 79 *Federal Register* at 25029 (GE = 0.82 bg. DE = 0.66 bg.).

[5] The 2014 RFS was proposed on November 29, 2013, and to date no final rule has been sent to the Office of Management and Budget for review under Executive Order 12866.

[6] In the 2013 RFS final rule, EPA stated that "any requests for exemption that are approved after the release of today's final rulemaking will not affect the 2013 standards." 78 *Federal Register* at 49,825.

B. *Use of Revised EIA Data*

The DFR uses revised EIA data from March 2014 to calculate the 2013 cellulosic biofuel standard. Given the small amount of cellulosic RINs, the use of the 2014 revised EIA data does not alter the calculation of the cellulosic RFS. For this reason, AFPM is **not** filing a negative comment on the DFR. EPA's use of revised EIA data provided after the start of a compliance year undermines regulatory certainty and injures obligated parties. EPA must implement a methodology that provides and maintains regulatory certainty prior to the beginning of the RFS compliance period. The best way to achieve this goal is for EPA to issue RFS rules in accordance with the prescribed statutory deadlines.

* * * * *

We appreciate the agency's efforts and support the revised 2013 cellulosic RFS. Thank you for the opportunity to express our concerns about EPA's tardiness in promulgating RFS rules and its revision of data comprising the denominator of the RFS percentage calculations after the beginning of the compliance year. These issues undermine the regulatory certainty Congress intended under the Clean Air Act.

AFPM looks forward to working with the Agency to address these concerns.

Respectfully submitted,

Richard Moskowitz

c: Janet McCabe
Christopher Grundler

MATTHEW H. MEAD
GOVERNOR

THE STATE OF WYOMING

STATE CAPITOL
CHEYENNE, WY 82002

Office of the Governor

July 16, 2014

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Dear Administrator McCarthy,

Wyoming refineries and consumers face unique circumstances placing them at a disadvantage in compliance with the Renewable Fuel Standard (RFS). I have outlined recommendations to alleviate these problems for your consideration.

Wyoming's refineries supply gasoline and diesel fuel to Rocky Mountain states' residents, tourists, and industry. The RFS was created in the Energy Policy Act of 2005 and its requirements were further expanded in the Energy Independence and Security Act of 2007. Congress recognized small refineries, such as those in Wyoming, will have difficulty complying with the RFS. Congress specifically gave the Environmental Protection Agency (EPA) authority to exempt or adjust RFS requirements for facilities with compliance hardships.

Wyoming refineries experience material and disproportionate financial hardship in RFS compliance. The RFS compliance is tracked through purchased renewable identification numbers (RIN). A RIN represents an amount of biofuel blended into gasoline or diesel. Refineries are required to purchase and submit RINs to the EPA to demonstrate compliance with the RFS. Wyoming is the only state in the nation where refining diesel exceeds refining gasoline. The Energy Information Agency of the U.S. Department of Energy reports that typical blending of biodiesel yields about one third of the RINs necessary to meet RFS requirements. This creates a deficit of RINs for Wyoming refineries, requiring purchase of additional RINs to remain compliant while contemporaneously providing sufficient diesel fuel supply to consumers. On a per-barrel basis, Wyoming refineries may face the most difficult and costly RFS compliance burden nationwide.

As currently set forth, the RFS is unattainable for Wyoming's refineries. Biodiesel blending is not currently available in Wyoming – making the only RFS compliance options available to Wyoming refineries a decrease in diesel fuel production, and/or the purchase of extraordinary volumes of RINs. Both solutions drive up fuel costs in Wyoming and hurt refinery profitability. This was not the intent of the RFS program.

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In 2013, the EPA proposed a reduction in 2014 biofuel blending requirements. This was welcome news and lowered some biofuel RIN costs. The proposed reduction resulted from the RFS approaching the "blend wall." Even after this proposed reduction, grain ethanol RINs are eight to nine times more expensive now than in December 2012. This presents an even greater economic hardship to Wyoming refineries compelled to purchase extraordinary volumes of RINs.

The economic hardships faced by Wyoming refiners, along with my suggested recommendations, are:

1) Wyoming merchant refiners (where refining is their primary or sole business and with limited or no ownership over the downstream terminals) are the refineries with the most biofuel blending and where most RINs are generated. These refineries generally do not own biofuel production nor do they control biofuel blend offerings in downstream terminals. Merchant refiners that do not own or control downstream blending are clearly disadvantaged as obligated parties. The RFS regulation should be amended to define the RFS obligated party as the location where blending actually occurs and RINs are generated – which is typically at the terminal level.

2) Wyoming currently does not engage in biodiesel blending. I am informed that biodiesel blending will soon be offered at some refinery terminals but there is consumer reluctance to use the blend. Wyoming's high elevations and cold temperatures may contribute to the lack of demand for biodiesel. The RFS regulations should be amended to recognize deficient RIN treatment of typical biodiesel blending. Without this change, Wyoming will be disadvantaged by the RFS regulation. The RIN deficiency connected with diesel fuel is a major RFS problem. This change is necessary for refineries who supply areas, such as Wyoming, where diesel fuel consumption exceeds national averages.

3) Wyoming produces grain ethanol which at maximum capacity can supply only about one third of the ethanol needed to achieve a statewide E-10/gasoline blend. In 2012, approximately 75% of the corn processed at the only Wyoming ethanol plant came from outside the state. There are no biodiesel plants in Wyoming. A large majority of biofuels must be railed or trucked across Wyoming from plants outside the region – this increases fuel costs to the consumers. I urge EPA to use its authority to exempt, in whole or in part, RFS obligations for Wyoming refineries that experience and document disproportionate RFS regulatory impacts. This is within the control of EPA. The RFS will effectively eliminate the incentive to invest in these refineries as it continues to drain profitability from Wyoming refineries. These refineries provide diesel fuel necessary to Wyoming's citizens and economy.

4) Merchant refiners are unfairly disadvantaged compared to vertically integrated refiners. This results from the point of compliance where RINs are purchased. Vertically integrated refiners are passing along a portion of their compliance costs to merchant refiners. Merchant refiners must reduce their selling price to cover additional compliance

costs passed on to them. The point of compliance should be moved to the petroleum fuel loading rack eliminating the imbalance. This ensures each entity will pay its full cost of compliance and does not upset the compliance system.

5) At the current requirements, the amount of renewable fuels that will be blended into traditional motor fuels will cross the "blend wall." EPA acknowledged this in the 2014 draft RFS requirements. Passing the "blend wall" can be detrimental to motor vehicles. I request the EPA to stay the course and reduce the required renewable fuels to a level that does not breach the "blend wall."

In 2012 during severe drought conditions, I and other governors asked the EPA to partially waive the corn ethanol mandate. EPA did not accept this request. The exacerbation of regulatory burden brought about by drought and hardships from the burdens detailed in this letter are not the intent of the RFS program. I ask the EPA to weigh these consequences to Wyoming's economy, refineries and people and to implement the recommendations I have detailed. These recommendations will allow Wyoming to reasonably meet the substantive goals of the RFS program and reduce harsh and unintended burdens.

Sincerely,

Matthew H. Mead
Governor

MHM:mdm

cc: The Honorable Mike Enzi, U.S. Senate
The Honorable John Barrasso, U.S. Senate
The Honorable Cynthia Lummis, U.S. House of Representatives
Mr. Christopher Grundler, Director, Office of Transportation & Air Quality, E.P.A.

Monroe Energy

Monroe Energy, L.L.C.
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June 14, 2013

Via Electronic Submission and Certified Mail

Environmental Protection Agency
Air and Radiation Docket and Information Center
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania A venue, NW
Washington, D.C. 20460
a-and-r-docket@epa.gov

RE: Regulation of Fuels and Fuel Additives: Renewable Fuel Standards: Docket ID No. EPA-HQ-OAR-2012-0546

In its April 7, 2013 comments on the United States Environmental Protection Agency's ("EPA") 2013 volume mandate for the renewable fuel standard, Monroe Energy, LLC ("Monroe") adopted the comments of the American Fuel and Petrochemical Manufacturers (AFPM). One of AFPM's comments on the proposed rule related to the timing of its issuance and the resultant lack of lead time for obligated parties to comply. [AFPM Comments at pages 15-16 (attached)]. AFPM suggested that to address the delay in promulgating the 2013 volume mandate and the lack of lead time for industry, EPA should "reduce the 2013 requirements to reflect the number of days the rule will be late in being finalized". (Id. at pg. 15).

Monroe Energy also would like to suggest other possible approaches to address the impact of an unprecedented price spike in RINs combined with much shorter than expected notice of compliance obligation levels. First, EPA should grant obligated parties additional time to comply with the 2013 volume mandate once finalized. The additional lead time could be in the form of a waiver of 40 CFR 80.1427(b), which prevents a refiner from carrying a deficit two years in a row or a straight extension of time commensurate with the delay in the issuance of the final rule. For example, if the final rule is issued in September, obligated parties could be given an additional ten months to comply with the rule.

Second, EPA should waive the carryover cap on RINs. Section 80.1427(a)(5) limits the number of 2012 RINs that can be used for compliance with the 2013 RVO. This provision prevents refiners from using more than 20% 2012 RINs for compliance with its 2013 RVO. By waiving the cap, EPA would provide greater flexibility to obligated parties to find and apply RINs for compliance without any risk of hoarding because the life of the 2012 RINs will expire at the end of 2013.

The spike in the price of RINs has had the unintended effect of creating regulatory winners and losers within the refining industry. The winners are those vertically integrated refiners that can themselves blend or that bought ethanol or biodiesel plants (and have RINs that they can sell or trade); and small refiners and small refineries that are able to avoid the devastating impact of the increased cost of compliance by securing hardship relief. The losers are those refiners, like Monroe Energy, that are much smaller operators than the integrated refiners, must purchase virtually all RINs needed for compliance, and yet do not qualify for small refiner hardship relief.

Monroe competes with all refiners, and cannot unilaterally pass an inflated RIN compliance cost on to consumers through an increased price at the pump when competitors have not incurred the same cost and are not passing it along.

EPA should do everything in its power to reduce the burden on those refiners that are disproportionately shouldering the impact of the spike in the price of RINs by: (1) reducing the 2013 volume mandate; (2) extending the timeframe for compliance; and (3) waiving the cap to allow refiners greater flexibility in achieving compliance.

We appreciate your consideration of Monroe Energy's additional thoughts on the timing of the rule and lead time for obligated parties to comply. Please contact me if you have any questions.

Respectfully submitted,

Frank A. Pici
Chief Financial & Administrative Officer

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April 8, 2013

COMMENTS OF THE
AMERICAN FUEL & PETROCHEMICAL MANUFACTURERS

Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards
Docket ID No. EPA-HQ-OAR-2012-0546

The American Fuel & Petrochemical Manufacturers (AFPM)[1] submits these comments in response to the Environmental Protection Agency's (EPA or Agency) proposed rule entitled *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards*.[2] As manufacturers of liquid transportation fuels, AFPM and its members are directly regulated by the Proposed Rule. AFPM members are injured by EPA's proposal, which could increase emissions of certain pollutants, alter perceptions of individual members' trademarks, and require modifications to fuel distribution systems. AFPM members also are impacted on a competitive basis, as EPA's regulations implementing various biofuel mandates impact the demand for transportation fuels they produce and distribute.

The Energy Independence and Security Act of 2007 (EISA) provides EPA with "tools" to adjust the volumes of renewable fuels in response to market conditions. Notwithstanding the incompatibility of mid-level ethanol blends with existing vehicles and fuel delivery infrastructure and the lack of availability of drop-in cellulosic biofuels, EPA has refused to utilize the flexibility provided under the law to reduce the amount of ethanol that will be mandated under the RFS.

This proposal is taking place at a critical time for the Renewable Fuel Standard (RFS). As the mandated annual biofuel volumes continue to increase in an environment of declining gasoline demand, ethanol will soon exceed the 10% compatibility limit of the overwhelming majority of vehicles and fuel retail infrastructure in the U.S. This is being referred to as the "E10 blendwall." The E10 blendwall is approaching and its early impacts already are being reflected

[1] AFPM is a trade association representing high-tech American manufacturers of virtually the entire U.S. supply of gasoline, diesel, jet fuel, other fuels and home heating oil, as well as the petrochemicals used as building blocks for thousands of products vital to everyday life.

[2] 78 *Federal Register* 9282 (February 7, 2013) (hereinafter the "Proposed Rule").

in the exponential increase in RIN prices and volatility. Some obligated parties are finding it impractical to acquire sufficient RINs to cover their production or import of gasoline and diesel. Both 2014 and 2015 likely will present circumstances that result in many obligated parties being unable to acquire enough RINs to meet their RFS obligations at current production levels. Sales of E85 will be too little to help largely because consumers have rejected this alternative fuel.[3] In addition, E15 has significant vehicle and refueling infrastructure compatibility problems and will not be available on a widespread basis. To respond to these changed circumstances, EPA must promulgate the 2013 Renewable Fuel Standards at levels that recognize the significant reduction in gasoline demand and the technological limits on the amount of ethanol that may be blended into the gasoline pool. AFPM proposes that EPA take all necessary steps to ensure that the total renewable fuel standards for 2013 be reduced to avoid a requirement to blend ethanol in quantities that exceed ten percent of the nation's gasoline pool. While AFPM believes that EPA should waive the entire RFS, at a minimum, the Agency must reduce the advanced and total RFS volume so that the quantity of ethanol mandated is less than 10% of gasoline demand.[4]

Corn ethanol RIN prices have increased dramatically and this added cost will disadvantage consumers and make the U.S. less competitive in the world gasoline and diesel markets. Moreover, in the face of the E10 blendwall obligated parties that cannot acquire sufficient RINs have four options: (1) limit production of gasoline and diesel, (2) export gasoline and diesel, (3) use banked RINs (although many obligated parties do not have banked RINs in sufficient quantities to meet their obligations), or (4) carry the deficit forward one year (into an even worse situation the following year where the mandates are even higher and where a party that carries forward a deficit must clear the deficit and meet its RVO in full in the second year). These realities combined with the impacts of the drought on corn prices constitute severe economic harm unforeseen by the Congress when the RFS was enacted.

AFPM believes that the RFS is broken and EPA should waive the entire mandate for 2013 and 2014 to ensure that Congress has adequate time to address the changed assumptions and unintended consequences caused by the RFS mandates. A recent study by NERA Economic Consulting calculates severe economic harm for the U.S. as a result of the blendwall.[5] This severe economic harm is sufficient to trigger EPA's authority to waive the RFS requirements in the amount necessary to avoid promulgating a mandate that forces the economy to crash into the E10 blendwall. This authority, in combination with EPA's ability to reduce the advanced and total volumes commensurate with the reduction in cellulosic biofuel volumes, provides the Agency with the ability to avoid the severe impact of the E10 blendwall.

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[3] *See* discussion at Section A.2, *infra*.

[4] Letter dated October 18, 2012 from EIA to EPA, (estimating gasoline demand of 133.984 billion gallons). *Note* a more recent estimate appears in the EIA Short Term Annual Energy Outlook (March 12, 2013) (estimating gasoline demand at 8.7 million barrels per day or 133.37 billion gallons in 2013).

[5] *See* NERA Economic Consulting, *Economic Impacts Resulting from Implementation of RFS2 Program* (October 2012).

Against this backdrop, AFPM is concerned with the following aspects of the Proposed Rule:

- The failure to appropriately consider the E10 blendwall.
- The rejection of the Court of Appeals' admonition in *API v. EPA* to use realistic estimates of cellulosic biofuel production in the proposed 2013 cellulosic biofuel RFS.
- The refusal to adjust downward the advanced biofuel and total renewable fuel volumes for 2013 to account for the shortfall in cellulosic biofuel production.
- The incorrect application of the statutory criteria used to establish the biomass-based diesel RFS for 2013 and the Agency's failure to respond to AFPM's petition for reconsideration to correct the deficiencies in this standard.
- The disregard of the Clean Air Act (CAA) deadline to finalize all four standards by November 30, 2012 and the decision to retroactively apply these standards.
- The delay in proposing the 2014 biomass-based diesel mandated volumes under the RFS and the resultant retroactive impact of such delay.

We address each of these issues in detail, below.

A. The Fast-Approaching Blendwall is a Wake-up Call that EPA must Heed.

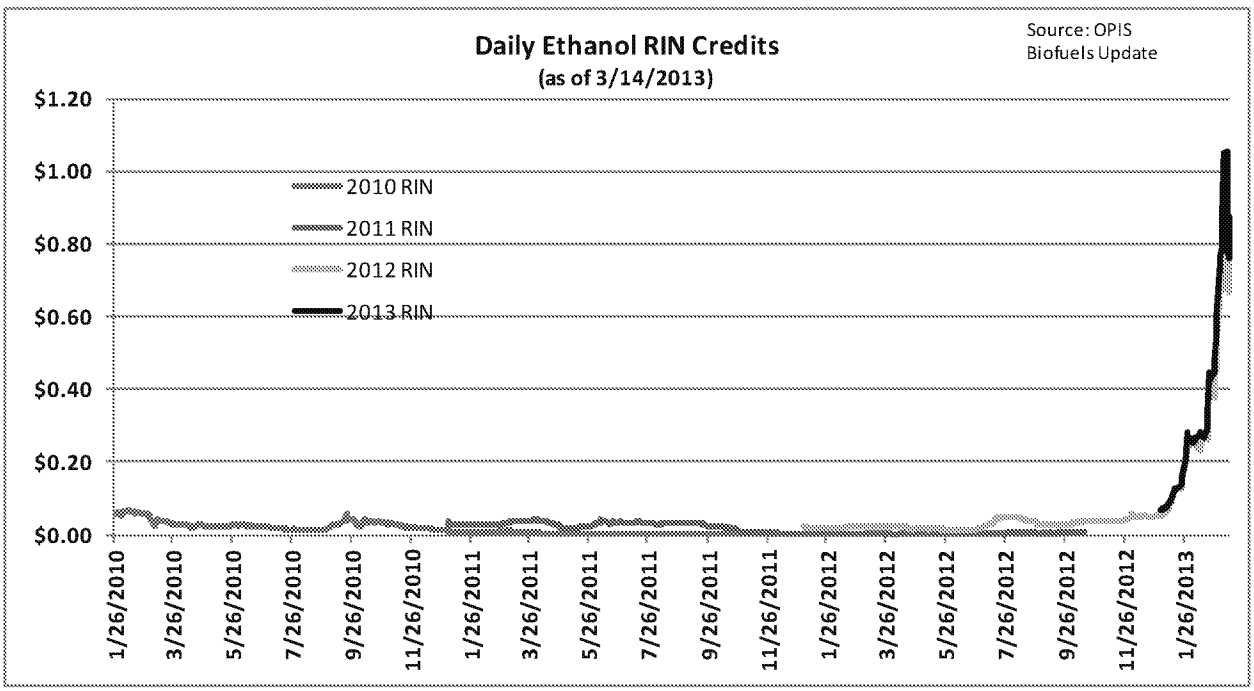
Five years after the enactment of the RFS, we face a crisis that Congress did not anticipate when it passed the Energy Independence and Security Act of 2007 (EISA). For several years, AFPM has warned that the ethanol blendwall will interfere with the implementation of the RFS. These warnings were largely ignored and as a result of changed circumstances the problems created by the ethanol blendwall are now upon us.

The fast-approaching E10 blendwall – the practical limit on the amount of ethanol that may be blended into the gasoline supply was not anticipated at the time of enactment. The fact that the E10 blendwall has become an issue in connection with the establishment of the 2013 RFS is largely the result of changed circumstances in the gasoline market. At the time EISA was being debated in Congress, the nation consumed 142 billion gallons of gasoline and demand was expected to grow to 150 billion gallons by 2013. Today, as the result of an economic slowdown in 2008 and the use of more fuel-efficient automobiles, our nation consumes approximately 134 billion gallons of gasoline – an eleven percent reduction in the amount of gasoline that was anticipated at the time EISA was enacted in 2007.[6] Had market expectations in 2007 held true,

[6] *See* U.S. Energy Information Administration, "EIA Frequently Asked Questions: How much gasoline does the United States consume," *accessed at* http://www.eia.gov/tools/faqs/faq.cfm?id=23&t=10; EIA Annual Energy Outlook 2007, DOE/EIA-0383, p. 80 (February 2007), http://www.eia.gov/oiaf/archive/aeo07/pdf/0383(2007).pdf. *See also* http://www.eia.gov/dnav/pet/pet_cons_psup_dc_nus_mbbl_a.htm.

we would not be facing the E10 blendwall this year. Indeed, if cellulosic biofuel producers succeeded in producing adequate quantities of so-called drop in fuels that were completely fungible with the existing slate of transportation fuels, rather than cellulosic ethanol that has compatibility issues with the existing fleet and fuel distribution infrastructure, the E10 blendwall may have been avoided in the long term, as well.

The E10 blendwall is not a story woven by obligated parties, but rather a very real problem that is confirmed by a documented RIN market imbalance. The following graph illustrates the market's reaction to the approaching blendwall and the significant shortage of RINs available for compliance with the RFS.



The graph clearly illustrates that when the blendwall was not at issue (pre-2013), ethanol RIN prices were typically priced below 4 cents per RIN. This changed at the end of 2012, when it became obvious that there was not enough gasoline available to accommodate the blending of the required amount of ethanol. This anticipated scarcity resulted in a meteoric rise in ethanol RIN prices. This rise was fueled by EPA's Proposed Rule, which showed that EPA was not prepared to use the tools at its disposal to address the blendwall.

EPA has certain tools to address some of these unintended consequences that have produced a significant market imbalance. EPA has the ability to reduce the cellulosic biofuel RFS to reflect historic production levels and to reduce the advanced and total renewable fuel mandates by an equivalent amount. EPA also has the ability to issue a waiver of the 2013 RFS standards that will ensure that ethanol remains below 10 percent of the gasoline supply based on

severe economic harm or inadequate domestic supply.[7] Such harm is clearly evident in the significant increase in the price and volatility of ethanol RINs since late 2012. The dramatic run-up in the price of ethanol RINs will have an impact on the cost of producing transportation fuels. Moreover, high RIN prices create an economic incentive for some obligated parties (who are importers) to divert planned imports of gasoline to other nations to avoid having to purchase RINs and other obligated parties to reduce the amount of gasoline and diesel they produce for the United States, which could have an impact on the available supply of transportation fuels.[8] These market conditions necessitate EPA sending a strong signal that it will do what is necessary to avoid crossing the E10 blendwall.

Proponents of using additional amounts of ethanol have argued that E15 and E85 are viable options for avoiding the blendwall. These alternatives, however, will not work in today's market.

1. E15 is Not a Realistic Solution to the Blendwall. Although EPA issued a partial waiver to allow E15 to enter the marketplace, due to vehicle and refueling infrastructure compatibility issues, E15 will not solve the blendwall problem. EPA concluded that E15 will not damage the emissions control systems of vehicles produced after 2001; however, subsequent data confirms that E15 will damage other engine components and virtually all of the automobile manufacturers have warned against the use of E15 in the vast majority of vehicles on the road. As such, the threat of potential liability from selling E15 stands as a real-world obstacle to the use of this mid-level blend.

Even if EPA could somehow overcome the potential liabilities from gasoline engine damage that will be caused by E15, the vast majority of existing fuel storage and dispensing systems are not compatible with blends exceeding E10. Moreover, this equipment is not "certified" to handle E15.[9] This certification is necessary for individual dealers and distributors to comply with existing regulations governing the storage and dispensing of motor fuels. Underwriter Laboratories will not recertify this existing equipment, creating state and local legal hurdles to the ability of retail service stations to carry this fuel. This means that the introduction of E15 would require independently-owned service stations to replace their storage and dispensing systems. The decision to replace this infrastructure is beyond the control of the obligated parties and likely will not occur, due to the potential vehicle liabilities discussed above, the potential for misfueling, and the substantial capital investment needed to carry E15. We note that obligated parties own approximately five percent of the retail fueling stations in the

[7] *See* 42 U.S.C. § 7545(o). We discuss the issue of severe economic harm in more detail below. With respect to inadequate domestic supply, we note that EPA expects the RFS to force the import of 666 million gallons of sugarcane ethanol from Brazil to help meet the Advanced Biofuel requirements. *See* Proposed Rule at 9298 – 9300. This need to import Brazilian sugarcane ethanol runs counter to EISA's stated purpose of furthering U.S. energy independence and stands as an acknowledgement of inadequate domestic supply.

[8] *See* NERA Economic Consulting, *Economic Impacts Resulting from Implementation of RFS2 Program* (October 2012) (quantifying the severe economic harm that would be caused by the E10 blendwall).

[9] The Petroleum Marketers Association of America reports that of the 700,000 gasoline dispensers in use, less than 5,000 have been certified for E15 and more than 3,000 miles of underground piping systems have not been certified as safe for E15 as well. *See* Letter from Dan Gilligan to Wall Street Journal, (March 20, 2013).

United States; independent marketers examine the costs and benefits of replacing their refueling infrastructure.

2. E85 Use is Too Small to Overcome the Blendwall. The ethanol producers and EPA also point to the potential to sell E85 as a means to comply with the 2013 RFS. This solution also is inadequate to overcome the blendwall problem. E85 will damage vehicles that are not specially designed to handle high level ethanol blends. There are approximately 11 million flexible fuel vehicles (FFVs) in the United States – this represents only 5% of the 223 million passenger vehicles in the U.S.[10] While E85 is dispensed at limited locations in the United States, consumers have rejected its use based primarily on poor fuel economy and higher costs. In fact, consumers with FFVs and reasonable access to E85 fill up with E85 less than 4% of the time.[11] This means that E85 represents less than 0.2% of the gasoline sold in the United States and cannot be used to overcome the blendwall.

B. 2013 Cellulosic Biofuel RFS

EPA proposes to establish a cellulosic biofuel mandate of 14 million ethanol-equivalent gallons for calendar year 2013. While this amount represents a significant reduction from the statutory volume of 1.0 billion gallons, it exceeds the Energy Information Administration's (EIA) original projection of 9.6 million gallons (and its more recent projection of 5.0 million gallons) and continues the Agency's aspirational pattern of promulgating a cellulosic biofuel mandate that is disconnected from market realities.[12] As such, this aspect of the Proposed Rule would be arbitrary, capricious and an abuse of EPA's discretion.

AFPM is concerned that EPA is following the same flawed process used to promulgate the 2011 and 2012 standards. The table below contains a representative comparison between EIA and EPA cellulosic biofuel outlooks for 2011 through 2013 and actual production data for 2011 and 2012. The table focuses on the three cellulosic producers EPA analyzed in the Proposed Rule along with EPA's mistaken assumptions for the two prior years.

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[10] *See* U.S. Energy Information Administration (2012). Annual Energy Outlook 2012, Table 58, *available at* http://www.eia.gov/forecasts/aeo/data.cfm

[11] *See* 75 *Federal Register* 14670, 14762 (May 26, 2010).

[12] Proposed Rule at 9293.

2011	Firebright LLC	KioR	INP BioEnergy	Range Fuels
EIA utilization	46%			25%
EPA utilization in final rule	47%	100%		75%
EIA volume (million gallons)	2.8			1.0
EPA volume (million gallons) in final rule	2.8	0.2		3.0
Actual production (million gallons)	**0.0**	**0.0**	**0.0**	**0.0**

2012	Firebright LLC	KioR	INP BioEnergy
EIA utilization	25%	25%	25%
EPA utilization in final rule	33%	30%	38%
EIA volume (million gallons)	1.6	2.0	3.1
EPA volume (million gallons) in final rule	2.0	3.0	3.0
Actual production (million gallons)	**0.0**	**0.001024**	**0.0**

2013	Firebright LLC	KioR	INP BioEnergy
EIA utilization		50%	50%
EPA utilization in proposed rule		73%	75%
EIA volume (million gallons)		5.5	4.0
EPA volume (million gallons) in proposed rule		8.0	6.0

In establishing the 2011 cellulosic biofuel RFS of 6.0 million ethanol-equivalent gallons, EPA relied upon the parochial representations of cellulosic biofuel producers whose facilities had not yet begun to produce cellulosic fuel.[13] In doing so, EPA promulgated a standard that exceeded EIA's projections of 3.94 million gallons for 2011.[14] This methodology proved to be a failure and actual domestic production in 2011 was zero gallons. In 2012, EPA ignored the lack of actual production in 2011 and repeated its erroneous methodology in establishing the cellulosic biofuel volumetric standard. Although EPA knew from its own data that no cellulosic biofuels were being produced, the Agency increased the 2012 mandate by almost 75 percent and promulgated a cellulosic biofuel RFS of 10.45 million ethanol-equivalent gallons for 2012.[15] This standard was determined to be arbitrary and capricious and was vacated by the U.S. Court of Appeals for the District of Columbia Circuit.

In setting the 2013 proposed standards EPA again chose to increase the utilization of the two cellulosic plants beyond EIA's outlook. EPA's expectation that the plants would be fully operational in 1Q 2013, has not materialized as of this date. Perhaps, more importantly, **on February 26, 2013, EIA revised downward its 2013 cellulosic biofuel projections.**[16] EIA now expects approximately 5 million gallons of cellulosic biofuels to be produced in 2013. This new estimate amounts to only 36 percent of the EPA proposed cellulosic biofuel volumetric standard. Given the insignificant amount of cellulosic biofuels production that has occurred so

[13] 75 *Federal Register* 76790 (December 9, 2010).

[14] *See* Letter from Richard Newell to Lisa Jackson, EPA-HQ-OAR-0133-0099 (October 20, 2010).

[15] 77 *Federal Register* at 1320 (January 9, 2012).

[16] *See* U.S. Energy Information Administration, *Today In Energy* (February 26, 2013) accessed March 3, 2013: http://www.eia.gov/todayinenergy/detail.cfm?id=10131.

far this year, EPA's proposal is not a realistic assessment of the amount of cellulosic biofuel that will be available in 2013.[17]

1. Court Decision. AFPM is troubled by the timing, substance, and rationale that the Agency used in proposing the 2013 cellulosic biofuel volumetric standard. For several years AFPM's complaints that the cellulosic mandate is far too aggressive, was not in compliance with the CAA, and penalizes obligated parties have fallen on deaf ears. As such, we were encouraged by the U.S. Court of Appeals decision in *API v. EPA*,[18] which vacated the 2012 cellulosic biofuel standard due to the Agency's unrealistic projections for cellulosic biofuel production. Specifically, the court instructed EPA to abandon its role in "promoting growth" in cellulosic biofuel production and to embrace a prediction "that aims at accuracy, not at deliberately indulging a greater risk of overshooting than undershooting."[19]

Unfortunately, the Proposed Rule continues to suffer from the very same bias that the court found to be unlawful. EPA did not alter the methodology used to predict the amount of cellulosic biofuel that will be produced in 2013. The proposed 2013 cellulosic biofuel production estimates are two orders of magnitude greater than the historical production numbers, exceed EIA's production estimates, and continue the Agency's unrealistic reliance upon the subjective predictions of individual cellulosic biofuel producers.

On January 25, 2013, the U.S. Court of Appeals vacated the 2012 cellulosic biofuel standard and criticized the Agency's methodology for predicting the amount of cellulosic biofuel that will be produced in the coming year. Less than one week following the court's decision, the Administrator signed the Proposed Rule. There is no indication that EPA altered the methodology used to establish the 2013 cellulosic biofuel production estimates in any material way from the methodology the Agency used in establishing the cellulosic biofuel mandates for 2011 and 2012. Indeed, with the exception of a passing reference to the court decision, the preamble to the Proposed Rule contains no discussion of the changes EPA made to its methodology following the court's decision.[20] The Agency's failure to alter its methodology in accordance with Court of Appeals' decision renders the 2013 cellulosic biofuel proposal legally infirm. EPA cannot ignore this controlling judicial decision and continue to base the regulatory volume for 2013 on a flawed methodology that was rejected by the court.

2. 2013 Cellulosic Biofuel Production Projection is Inaccurate. EPA utilized the same methodology to predict the 2013 cellulosic biofuel production as it did for 2011 and 2012. Given the historical inaccuracy of this approach, we are surprised that the Agency continues to

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[17] EPA's EMTS data show zero cellulosic biofuel production in 2013; EMTS last accessed on April 2, 2013.

[18] *See API v. EPA*, Case No. 12-1139 (decided January 25, 2013).

[19] *Id.* at 11.

[20] *See* Proposed Rule at 9294 (noting that the court did not require EPA to use EIA's actual estimate, but failing to discuss any change to the Agency's methodology for predicting cellulosic biofuel volumes).

rely upon this mistaken methodology. EPA continues to believe cellulosic biofuel forecasts from parties who have utterly failed to make a reasonable forecast for three straight years.

Section 211(o) describes the appropriate methodology EPA must utilize in establishing the cellulosic biofuel mandate for the coming year:

> Not later than October 31 of each calendar years 2005 through 2021, the Administrator of the Energy Information Administration shall provide to the Administrator of the Environmental Protection Agency an estimate, with respect to the following calendar year, of the volumes of transportation fuel, biomass-based diesel, and cellulosic biofuel projected to be sold or introduced into commerce in the United States.[21]
>
> * * * *
>
> Not later than November 30 of each of calendar years 2005 through 2021, *based on the estimate provided under subparagraph (A)*, the Administrator of the Environmental Protection Agency shall determine and publish in the Federal Register, with respect to the following calendar year, the renewable fuel obligation that ensures that the requirements of paragraph (2) are met.[22]
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> * * * *
>
> For the purpose of making the determinations in clause (ii), for each calendar year, the applicable volume of cellulosic biofuel established by the Administrator shall be based on the assumption that the Administrator will not need to issue a waiver for such years under paragraph (7)(D).[23]

The Renewable Fuel Standard (RFS) clearly specifies EIA's cellulosic biofuel production estimates as the starting point in any analysis. EPA is instructed to establish a cellulosic biofuel mandate that is "based on" EIA's estimate and that would not require the issuance of waivers. Given that EIA has historically overestimated the amount of cellulosic fuel that will be produced, we think it is imminently reasonable, and even statutorily compelled, that the EPA Administrator should revise that estimate *downward* to account for the historical challenges and delays that cellulosic biofuel producers have experienced and that render their estimates inaccurate. Yet, EPA consistently revises EIA's estimate upward, ignoring historical precedent and virtually guaranteeing a cellulosic biofuel shortfall in the marketplace that unfairly

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[21] 42 U.S.C. § 7545(o)(3)(A).

[22] 42 U.S.C. § 7545 (o)(3)(B)(i) (emphasis added).

[23] 42 U.S.C. § 7545 (o)(2)(B)(iv).

penalizes obligated parties. The Court of Appeals recently took issue with the consequences of this approach:

> Apart from their role as captive consumers, the refiners are in no position to ensure, or even contribute to, growth in the cellulosic biofuel industry. 'Do a good job, cellulosic fuel producers. If you fail, we'll fine your customers.' Given this asymmetry in incentives, EPA's projection is not 'technology-forcing' in the same sense as other innovation-minded regulations that we have upheld.[24]

EIA originally estimated that there will be 9.6 million gallons of cellulosic biofuel produced in 2013. It has lowered that estimate to 5 million gallons and acknowledged that its estimates have proven to be too optimistic as volumes have been below expectations. In the Proposed Rule, EPA has chosen to reject EIA's estimate; however, instead of lowering the estimate to reflect historical realities and avoid the issuance of waivers, EPA again raised EIA's estimate based on interviews with cellulosic biofuel producers whose motivation is to persuade EPA to expand the mandate for their product. This methodology has repeatedly failed to produce an accurate estimate and most recently resulted in a cellulosic biofuel mandate that was vacated by the court.

EPA's inflated estimate is based primarily on interviews with individual companies that have indicated their commercial cellulosic biofuel production facilities *will come on line in the future*.[25] The 2012 rule based the cellulosic mandate on planned production from 6 plants.[26] The production did not materialize, and the company owning one of the plants has recently filed for bankruptcy. Of those six plants, two are the basis for the 2013 cellulosic volumes in the proposed rule. Even if they begin reliable commercial production, EPA continues to make a critical error in assuming that a start-up plant using new technologies or applying known technologies in new ways will operate at or near its full capacity.[27] EPA's predictive methodology is flawed and virtually guarantees that the 2013 cellulosic mandate will not be met.

3. Cellulosic RIN Carryover. We also note that since there were zero cellulosic gallons produced in 2011 and only 1,741 cellulosic biofuel Renewable Identification Numbers (RINs) available in the marketplace for all of 2012, there is at best a *de minimis* (*i.e.*, 1,741

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[24] *API v. EPA*, Slip Op. at 12.

[25] *See* Proposed Rule at 9290. We note that these same cellulosic biofuel producers previously indicated that they would produce cellulosic biofuel in 2011 and 2012, which were the primary drivers underlying EPA's inaccurate estimates in the prior two years. *See* 77 *Federal Register* 1327 (January 9, 2012) and 75 *Federal Register* 76797 (December 9, 2010).

[26] *See* 77 *Federal Register* 1327, 1330-1331 (January 9, 2012).

[27] *See* Proposed Rule at 9294 (table shows planned startups in first quarter, with available volumes at levels implying full capacity production for much of the remaining year).

RINs) "carryover" of excess cellulosic biofuel RINs that could be used for compliance with the 2013 cellulosic biofuel mandate.[28]

4. A Realistic Cellulosic Biofuel Standard. Based on the data in the EPA Moderated Transaction System (EMTS), EPA is aware that no cellulosic biofuel was produced in 2011 and very little was produced in 2012. EMTS data show zero cellulosic biofuel production in 2013 to date. These facts suggest caution when promulgating the regulatory volume for 2013. The Agency's mistakes in setting overly aggressive cellulosic biofuel standards have consequences. Refiners should not be required to meet a mandate to blend cellulosic biofuels, when the domestic supply is either non-existent or inadequate.

No harm will be caused if EPA establishes a conservative, realistic cellulosic biofuel standard and domestic production exceeds the Agency's mandate.[29] Any excess cellulosic biofuel RINs could be used to meet the advanced biofuel standard. The statutory volume for advanced biofuels is larger than the sum of cellulosic biofuels and biomass-based diesel. Congress intended competition between excess cellulosic biofuel RINs, excess biomass-based diesel RINs and other qualifying renewable biofuels. In fact, excess cellulosic biofuel RINs also can be used for compliance with the total renewable fuel obligation.

There are three options for EPA to consider in its effort to set a realistic cellulosic biofuel standard for 2013 based upon historic production:[30]

1. EPA could set the 2013 cellulosic biofuel obligation at 0 gallons. In 2012, total cellulosic biofuel production was 21,093 gallons, out of which 20,069 gallons were exported. These are very small volumes corresponding to a cellulosic RFS percentage standard of less than 0.00002%.

2. The Agency could set the 2013 cellulosic biofuel obligation at 4,092 gallons, which represents the annualized average production of the last three months of 2012. This methodology would conform to S. 251[31] and H.R. 550, which would

[28] In 2012, there were 1,741 RINs that may be available for use in 2013. *See* 2012 EMTS data at: http://www.epa.gov/otaq/fuels/rfsdata/2012emts.htm.

[29] AFPM believes that the RFS is broken and EPA should waive the entire mandate for 2013 and 2014 to ensure that Congress has adequate time to address the changed assumptions and unintended consequences caused by the RFS mandates. Establishing a realistic cellulosic biofuel standard is required by statute; however, even a complete waiver of this mandate, would not be enough to abate the short term crisis caused by the E10 blendwall. EPA should exercise its authority to reduce the total renewable fuel volumes to ensure that the E10 blendwall is not breached.

[30] *See* EPA Moderated Transaction System – 2012 RFS2 Data, accessed on April 3, 2013 at: http://www.epa.gov/otaq/fuels/rfsdata/2012emts.htm

[31] http://thomas.loc.gov/cgi-bin/query/z?c113:S.251.IS:

establish a cellulosic volumetric standard based on the average monthly volume in the prior year.[32]

3. EPA could set the cellulosic volumetric standard at 21,093 gallons, which represents the total amount of cellulosic biofuel recorded in EMTS in 2012.

Considering historical production, the proposed 10.45 million gallon cellulosic biofuel mandate is unrealistic and contrary to EPA's statutory authorization.

C. Adjustment of Advanced Biofuel and Total Renewable Fuel Volumes

EPA should reduce the regulatory volume for advanced biofuels and total renewable fuels mandates in 2013 to reflect the very large reduction in the cellulosic biofuel mandate, as well as the vehicle and retail fuel distribution infrastructure constraints (*i.e.*, blendwall).[33]

1. Cellulosic Biofuel Shortfall. AFPM urges EPA to adjust the advanced biofuel and total renewable fuel volumes for 2013 to account for the shortfall in cellulosic biofuel production and the realities of the ethanol blendwall. The Agency understands the nested nature of the RFS and correctly points out the following:

> Since cellulosic biofuel is also used to satisfy the advanced biofuel standard and the total renewable fuel standard, any reductions in the applicable volume of cellulosic biofuel will also affect the means through which obligated parties comply with these two other standards.[34]

While both biodiesel and sugarcane ethanol might be used to meet the advanced biofuels mandate, EPA correctly points out that the most likely source of advanced biofuels is imported sugarcane ethanol.

> EPA estimates that if biodiesel production in 2013 does not exceed 1.28 bill gallons, and domestic production of other advanced biofuels is about 150 mill gallons, imports of sugarcane ethanol

[32] http://thomas.loc.gov/cgi-bin/query/z?c113:H.R.550.IH:

[33] AFPM believes that the RFS is broken and EPA should waive the entire mandate for 2013 and 2014 to ensure that Congress has adequate time to address the changed assumptions and unintended consequences caused by the RFS mandates. Reducing the advanced biofuel mandate by an amount equal to the reduction in the cellulosic biofuel standard, would not be enough to abate the short term crisis caused by the E10 blendwall and EPA should exercise its authority to reduce the total renewable fuel volumes to ensure that the E10 blendwall is not breached.

[34] Proposed Rule at 9295.

> from Brazil would need to reach 666 mill gal in order for the 2.744 bill gal advanced biofuel requirement to be met.[35]

We believe that the market might choose sugarcane ethanol over additional supplies of biodiesel, given the cost differences between these two fuels, but note that the Proposed Rule does not set forth this critical economic analysis for public comment.[36] If this occurs, EPA's stated need to be consistent with the energy security and greenhouse gas reduction goals of the RFS will be undermined, as additional imported sugarcane ethanol is required and increases in global GHG emissions from additional transportation of corn ethanol exports and sugarcane ethanol imports (*i.e.*, fuel shuffling). Given the Agency's desire to maintain these RFS goals, its failure to reduce the advanced biofuel and total renewable fuel requirements in the face of an inadequate supply of cellulosic biofuels is inconsistent with its stated environmental goals. Moreover, further incentivizing imported sugarcane ethanol will exacerbate the E10 blendwall problem.

The proposed advanced biofuel standard also includes a 28% annual increase in biomass based diesel mandate. EPA failed to correctly apply the statutory criteria in setting this limit and has not fully discussed the challenges of producing the mandated 1.28 billion gallons in 2013, points which have been raised in AFPM's petition for reconsideration. In its rationale, EPA cites biodiesel nameplate capacity of 2.1 billion gallons, which includes idled plants. Idled plants may be brought back on line, but given the time required and the very late effective date of this rule, it is unlikely that such additional production will occur in time to meet the 2013 advanced biofuels mandate. While the National Biodiesel Board will comment on that industry's ability to produce virtually any amount of biodiesel mandated under the RFS, such representations should be scrutinized given incidents of RIN fraud, high feedstock costs, the drought, and consumers' general reluctance to embrace a fuel that costs more, has a lower energy content, poor cold weather performance and inconsistent quality. Moreover, given the high cost of biodiesel relative to other alternatives, EPA's assumption that the demand for biodiesel will exceed the RFS mandated volume is not realistic.

2. Vehicle and Retail Fuel Infrastructure Constraints. EPA proposes to reduce the cellulosic biofuel requirement from the statutory level of 1.0 billion gallons in 2013 to 14 million ethanol-equivalent gallons. The proposed reduction of the cellulosic biofuel standard for 2013 by almost 1.0 billion gallons should trigger a corresponding reduction in the advanced biofuels standard for 2013. As such, the Agency should not promulgate 2.75 billion gallons for the advanced biofuels volumetric standard in 2013 (the statutory level).

Adding the EPA's projection of: (1) 616 million gallons of sugarcane ethanol; (2) 49 million gallons of other advanced ethanol (which may be as high as 150 million gallons if other advanced biofuels do not materialize); and (3) 6 million gallons of cellulosic ethanol to the 13.8 billion gallons of conventional biofuels required to fulfill the total renewable mandate of 16.55 billion gallons of ethanol equivalent, results in 10.9% of the gasoline volumetric

[35] Proposed Rule at 9298.

[36] We also raise concerns with EPA's sugarcane ethanol pathway, discussed in Section H, *infra*.

demand.[37] EPA knows that the vast majority of U.S. vehicles and retail fuel delivery infrastructure to-date are approved for E10 fuel. Proposing a 2013 RFS standard that "crosses" the 10% blendwall is problematic and could result in significant fuel supply disruptions in the U.S. While AFPM believes that EPA should waive the entire RFS, at a minimum the Agency must reduce the advanced and total RFS volume so that ethanol is less than 10% of the 133.37 billion gallons of gasoline demand.[38]

Similarly, EPA should reduce the total renewable fuel volume for 2013 to reflect a lower requirement for conventional biofuels. Recently, EIA projected only 13.0 billion gallons of ethanol consumption in 2013.[39] This is 0.8 billion gallons less than the implicit 13.8 billion gallons of conventional biofuels requirement for 2013. EPA should reduce the total renewable fuel volumetric standard for 2013 from 16.55 billion gallons to 14.75 billion gallons to reflect EIA's projection and to account for the reduction in cellulosic biofuels and technological limits on ethanol consumption to ensure that the E10 blendwall is not exceeded.[40]

D. 2013 Biomass-Based Diesel Standard

The Proposed Rule contains a brief discussion of the biomass-based diesel volumes for 2013 in the context of EPA's assessment of available volumes of advanced biofuel. EPA mentions that it had finalized a biomass-based diesel volume of 1.28 billion gallons for 2013;[41] however, the Agency fails to mention that this final rule is the subject of a petition for reconsideration and a petition for review filed in the U.S. Court of Appeals for the DC Circuit.[42] AFPM's petition for reconsideration was based upon new information that the Agency did not consider in promulgating the 2013 biomass-based diesel standard. Included in AFPM's petition for reconsideration is information on the environmental impacts; energy security; cost to consumers; the drought; RIN fraud; and erroneous estimates of job creation.

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[37] (13.8 + 0.666 +0.049+0.006)/133.37 = 10.9%. *See* EIA letter to EPA (October 18, 2012) (estimating gasoline demand of 133.984 billion gallons). *Note* a more recent estimate appears in the EIA Short Term Annual Energy Outlook (March 12, 2013) (estimating gasoline demand at 8.7 million barrels per day or 133.37 billion gallons in 2013).

[38] Letter dated October 18, 2012 from EIA to EPA.

[39] Energy Information Administration, Short-Term Energy Outlook, Table 8 (February 12, 2013).

[40] AFPM believes that the RFS is broken and EPA should waive the entire mandate for 2013 and 2014 to ensure that Congress has adequate time to address the changed assumptions and unintended consequences caused by the RFS mandates. Reducing the advanced and total RVOs mandate by an amount equal to the reduction in the cellulosic biofuel standard is insufficient to abate the short term crisis caused by the E10 blendwall and EPA should exercise its authority to reduce the RVOs to ensure that the E10 blendwall is not breached.

[41] 77 *Federal Register* 59458 (September 27, 2012).

[42] We note that more than 4 months after filing our petition for reconsideration, EPA has failed to post the petition to the docket. Accordingly, we attach another copy as Exhibit A hereto.

Given the Proposed Rule's discussion of the 2013 biomass-based diesel mandate and the prospects for increasing production of this alternative fuel, we are disappointed that EPA has not yet issued a decision on AFPM's petition for reconsideration and failed to even mention it in the preamble to the Proposed Rule. The failure to discuss the issues raised in AFPM's petition amounts to the continuation of the Agency's consideration of only those factors that could result in an increased biofuel mandate, while ignoring facts and circumstances that could result in a shortfall in production, significant increases in costs to consumers of transportation fuels, and adverse environmental impacts. The EPA should reconsider the 2013 mandate and amend the September 2012 rulemaking to reduce the 2013 biomass-based diesel mandate to a realistic amount, such as 1 billion gallons.

E. Failure to Timely Propose 2013 RFS Volumes and Potential Retroactive Application of 2013 Standards

Congress mandated that EPA publish the renewable fuel volume obligations for each year by November 30 of the preceding year.[43] EISA requires at least *31 days* between the publication of each year's standards and the date that volume obligations begin to accrue under those standards. EPA failed to carry out this statutory directive. The Agency did not issue a proposed or final rule for the 2013 volume obligations during 2012 in direct violation of the lead time provisions of the statute. It is illegal and unfair that EPA has continually missed these legislatively-established deadlines and then forces obligated parties to retroactively comply.

If EPA proceeds with this delayed rulemaking, it would result in the accrual of legal obligations before the effective date of the final rule, as obligations are created with each gallon of gasoline and diesel produced for domestic consumption after January 1, 2013. By imposing obligations on transactions occurring before the rule takes effect, EPA will be engaging in retroactive rulemaking. A rule that imposes new obligations on production and importation that has already occurred is clearly retroactive and illegal. The fact that obligated parties have until February 2014 to obtain RINs for compliance with the obligations for 2013 does not cure the retroactivity problem.

EPA has recognized the importance of minimum lead time in the RFS2 program. The Agency has announced that "for future standards, we intend to issue a proposed rule by summer and a final rule by November 30 of each year in order to determine the appropriate standards applicable in the following year."[44] EPA believes that a notice-and-comment rulemaking for each year's standards is "appropriate" given "the implications of these standards and the necessary judgment that can't be reduced to a formula akin to the RFS1 regulations."[45]

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[43] *See* 42 U.S.C. § 7545(o)(2)(B)(i).

[44] 75 *Federal Register* 14670, 14675 (March 26, 2010).

[45] *Id.* at 14675.

The procedure for the 2013 RFS standards should not be repeated for the 2014 standards. AFPM expects the Agency to issue a NPRM this summer for the 2014 standards and promulgate a final rule by November 30, 2013.

EPA's missed statutory deadline undermines the basic rulemaking process established by the Administrative Procedure Act. The familiar sequence is notice, comment, promulgation of a rule, and judicial review. For an administrative agency to delay the final rule for RFS obligations for 2013 and to than apply it retroactively to January 1, 2013 subverts the rulemaking process. In this case, the Administration lost the opportunity to collect public comments on a proposal during 2012 in order to promulgate an improved rule for 2013 compliance prior to January 1, 2013.

The Agency does not have unbounded discretion to determine the regulatory levels of the RFS to apply for 2013 in a final regulation promulgated well after January 1, 2013. AFPM strongly opposes any attempt by EPA to impose retroactive regulatory RFS requirements. EPA also should continue to apply the 2012 RVO, as revised by the court's decision, until an adjusted final rule is promulgated.[46] To address the delay in promulgating the RVOs, EPA should reduce the 2013 requirements to reflect the number of days the rule will be late in being finalized.

F. 2014 Biomass-Based Diesel Standard

EISA requires EPA to promulgate the volume for biomass-based diesel for 2014 no later than 14 months before January 1, 2014. The Proposed Rule does not include a proposed volume for biomass-based diesel for 2014 and instead indicates that the Agency will issue a separate proposal at a later date. We note that the Agency did not publish the biomass-based diesel volume for 2013 until September 2012, providing the industry with less than four months lead time. AFPM is concerned that the Agency continues to ignore this important statutory deadline. Based on the substance of AFPM's petition for reconsideration of the 2013 biomass-based diesel volumetric requirements and the missed statutory deadline, EPA should propose expeditiously a 2014 biomass-based diesel RVO of no more than 1.0 billion gallons.

G. Procedurally, EPA Has Failed to Use the Most Recent EIA Data Available in Establishing These Proposed Standards.

EIA issued its early release of AEO2013 on December 5, 2012. Since EPA will not issue the final rule on 2013 Renewable Fuel Standard until sometime in May or later, it has plenty of time to consider the more recent forecast that EIA has made available.

[46] AFPM believes that the RFS is broken and EPA should waive the entire mandate for 2013 and 2014 to ensure that Congress has adequate time to address the changed assumptions and unintended consequences caused by the RFS mandates. Reducing the RVOs by 40 percent to reflect the delay in promulgating the 2013 requirements would help ensure that the E10 blendwall is not breached in the 2013-2014 timeframe.

H. Sugarcane Ethanol Imports

EPA may waive RFS requirements when domestic biofuel supplies are insufficient to satisfy the mandate. By leaving the advanced biofuel standard at the statutory volume, EPA is creating an incentive to import sugarcane ethanol (at least 666 million gallons) into the U.S. from Brazil, contrary to EISA's purpose of furthering U.S. energy independence. At the same time, Brazil is replacing these volumes by importing U.S. corn ethanol or gasoline. This real world fuel shuffling was not considered when EPA approved the sugarcane ethanol pathway. In addition to waiving the imported volumes due to insufficient domestic production, EPA needs to delay any increases in the advanced biofuel volumes until it has reexamined whether the entire Brazilian sugarcane ethanol pathway actually achieves sufficient GHG emissions reductions.

CONCLUSION

AFPM members are dedicated to working cooperatively at all levels to ensure an adequate supply of clean, reliable and affordable transportation fuels. AFPM members are focused on building a better tomorrow for the American people, continuing our efforts to improve the environment at the same time we manufacture vital products to strengthen our economy and improve the lives of families. We stand ready to work with the Administration to ensure a stable and effective fuels policy that utilizes a diversity of resources to improve our national security, benefits consumers and protects our environment.

EISA provides EPA with "tools" to adjust the volumes of renewable fuels under certain circumstances. Given the incompatibility of mid-level ethanol blends with existing vehicles and retail fuel distribution infrastructure (E10 blendwall) and the small amount of cellulosic biofuel production, EPA should utilize the flexibility provided by the law to lower the annual volumetric targets, including the 2013 RVOs.

In promulgating a final rule implementing the 2013 renewable fuel standards, EPA must address the following issues:

- Waive the RFS mandates in their entirety, as the RFS was built on assumptions that are no longer valid and the law is producing absurd results. At a minimum, EPA should adjust the advanced and total RFS volumetric standards to ensure that the E10 blendwall is not breached.

- Promulgate a cellulosic biofuel volumetric standard that accurately reflects the reduced level of cellulosic biofuels that will be available in the U.S. market and appropriately considers the U.S. Court of Appeals recent decision, requiring EPA to change the methodology it uses to predict cellulosic biofuel production for the coming year. This will require a critical look at the *current* state of cellulosic biofuel production and recognition that it will be at least five months into the compliance year before the rule will be finalized and an acknowledgement that virtually no

cellulosic biofuel has been produced in 2013. AFPM recommends a cellulosic biofuel standard of zero based on EPA's EMTS data.

- Promulgate standards with reduced advanced biofuel and total renewable fuel mandates that properly reflect the reduced amount of cellulosic biofuels that will be available in 2013. The failure to make this corresponding adjustment will increase the cost of complying with the RFS, increase the amount of biofuels imported into the United States, and increase global GHG emissions as a result of ethanol fuel shuffling.

- As soon as practicable, reduce the 2013 biomass-based diesel standard to one billion gallons and respond to AFPM's petition for reconsideration based on new information that became available after the close of the comment period.[47]

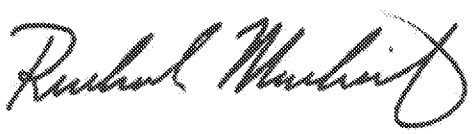
- Reduce the 2013 volumetric standards to reflect the number of days the rule will be late in being finalized.

- Promulgate standards for 2014 that address the blendwall by November 30, 2013 and correct what has evolved into a pattern of illegal retroactive rulemaking, as a result of missed statutory deadlines for establishing annual requirements under the RFS.

- Suspend the 2013 advanced biofuel standard due to (1) inadequate domestic supply and (2) until a complete reevaluation of the Brazilian sugarcane ethanol pathway establishes that sufficient GHG emissions reductions are achieved.

If you have any questions concerning these comments, please contact the undersigned or Tim Hogan at (202) 457-0480.

Respectfully submitted,



Richard Moskowitz

Attachment

[47] AFPM's petition for reconsideration is attached hereto as Exhibit A.

EXHIBIT A

AFPM Petition for Reconsideration

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November 20, 2012

The Honorable Lisa Jackson
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue
Washington, DC

RE: Petition for Reconsideration – Docket No. EPA-HQ-OAR-2010-0133

Dear Administrator Jackson:

Pursuant to Section 307(d)(7)(B) of the Clean Air Act, the American Fuel & Petrochemical Manufacturers ("AFPM"),[1] petitions the Administrator of the U.S. Environmental Protection Agency ("Agency" or "EPA") to reconsider its final rule entitled *Regulation of Fuels and Fuel Additives: 2013 Biomass-Based Diesel Renewable Fuel Volume*.[2]

The objections raised in this Petition for Reconsideration were either impracticable to raise during the public comment period or arose after the close of the public comment period, and they are of central relevance to the outcome of the Final Rule. The Administrator must therefore "convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed."[3]

AFPM submits this Petition based on new facts that are material to EPA's application of the statutory criteria the agency must apply in establishing the applicable volume of biomass-based diesel to be used under the renewable fuel standard for 2013.

BACKGROUND

The federal Renewable Fuel Standard ("RFS") requires EPA to promulgate a rule establishing a specific amount of biomass-based diesel for 2013. For 2012 and beyond, Congress provided a floor of 1.0 billion gallons that was intended to provide an insurance policy to the existing

[1] AFPM is a national trade association of more than 400 companies. Its members include virtually all U.S. refiners and petrochemical manufacturers. AFPM members supply consumers with a wide variety of products and services used daily in their homes and businesses. These products include gasoline, diesel fuel, home heating oil, jet fuel, lubricants and the chemicals that serve as "building blocks" in making diverse products, such as plastics, clothing, medicine and computers.

[2] 77 *Federal Register* 59458 (September 27, 2012) (hereinafter the "Final Rule").

[3] 42 U.S.C. § 7607(d)(7)(B).

biodiesel industry in the form of a guaranteed market for their product. Beyond 2012, EPA was given the discretionary authority to increase the biomass-based diesel mandate beyond a billion gallons, based on its evaluation of six criteria specifically enumerated in the RFS. As demonstrated below, the facts critical to the analyses and application of the statutory criteria have materially changed since the close of the comment period and warrant a reconsideration of the Final Rule.

DISCUSSION

A. The Administrator's Discretion to Increase the Biomass Based Diesel Requirements Under the RFS is Framed by the Application of Six Specific Statutory Criteria

In determining the biomass based diesel requirements for 2013, Congress instructed EPA to establish a minimum requirement of 1.0 billion gallons.[4] Congress gave the Administrator the discretion to promulgate a rule that goes beyond the 1.0 billion gallon statutory floor, based on its consideration of the following six factors: (1) environmental impact; (2) impact upon energy security; (3) expected rate of commercial production of renewable fuels; (4) impact upon fuel delivery infrastructure; (5) cost to consumers; and (6) other factors such as job creation, price and supply of agricultural commodities, rural development, and food prices.[5]

The application of these criteria to the Administrator's decision requires a fact-based analysis. As demonstrated below, the facts underlying EPA's analysis for several of the enumerated statutory factors have changed significantly and warrant reconsideration of the Administrator's decision to promulgate a biomass-based diesel mandate in excess of 1.0 billion gallons.

Before addressing the changed circumstances that warrant reconsideration of the Administrator's decision, it is important to understand the rationale underlying the statutory framework created for biomass-based diesel. At the time that the Energy Independence and Security Act of 2007 ("EISA 2007")was under debate, the National Biodiesel Board ("NBB") asked other industries to join them in supporting a specific carve-out for biodiesel that would ensure the viability of its existing brick and mortar facilities.[6] At least one consumer group who historically opposes government fuel mandates joined the NBB in supporting a 1.0 billion gallon carve-out that was intended to be an insurance policy to protect existing biodiesel facilities. At the time, the NBB represented that going forward biodiesel would be able to compete with petroleum-based diesel fuel and supported the inclusion of statutory criteria designed to prevent an increase in the biodiesel mandate if it would result in an increase in diesel fuel costs.

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[4] *See* 42 U.S.C. § 7545(o)(2)(B)(iv).

[5] *See* 42 U.S.C. § 7545(o)(2)(B)(ii).

[6] There were other elements of this compromise, such as the preemption of state biodiesel mandates, that were not included in the final legislation.

Biomass-based diesel qualifies under the advanced biofuel category of the RFS and therefore should compete with other advanced biofuels to ensure the goals of the RFS are met in the most cost effective manner. The biomass-based diesel mandate is a dedicated carve-out from the advanced biofuel category and increasing it creates a disincentive for investments in other advanced renewable fuels that may overcome some of the performance limitations associated with biodiesel. As such, the increase of the biomass based diesel mandate should be approached very cautiously as the EPA is essentially selecting winners and losers without a clear understanding of the impacts upon the capital investment in future fuels. The 2.75 billion gallon Advanced Biofuel Mandate provides more than enough incentive to grow the biodiesel industry, provided that the biodiesel industry can live up to the promises it made at the time EISA 2007 was enacted. If the industry cannot meet these expectations, then other advanced biofuels should be used to meet consumers' needs in the most cost effective manner possible. The six statutory criteria are designed to force EPA to consider these variables.

B. New Information Critical to the Administrator's Analysis Compels Reconsideration of the Final Rule

The public comment period for the rulemaking that is the subject of this Petition closed on August 11, 2011.[7] During the time between the conclusion of the public comment period and the promulgation of the Final Rule, several facts changed that significantly impact the statutory criteria enumerated above. We believe that these facts compel the promulgation of a lower biomass-based diesel volumetric requirement for 2013.

1. The Drought

The Agency could not have anticipated the drought our Nation is experiencing when the comment period closed in August 2011. This drought has led to a dramatic reduction in corn and soybean supplies, which has increased livestock and food production costs. The drought has made it very difficult for these industries to plan and remain profitable and has led to multiple waiver requests of the ethanol requirements under the RFS. Soybean crops, the primary feedstock for biodiesel production, have been similarly impacted and the Administrator's discretionary decision to increase the biomass-based diesel component of the RFS mandates warrants reconsideration.

Millions of tons of soybean oil meal are used annually by animal producers. The large increase in soybean oil meal price means hundreds of millions of dollars in increased production costs for these industries. This financial hardship will be exacerbated by the discretionary 28 percent increase in the requirement for biomass-based diesel. This new fact is directly relevant to the statutory criteria Congress created to inform EPA's decision of appropriate biomass-based diesel quantities. At several points in the preamble to the Final Rule, EPA acknowledged that

[7] *See* 76 *Federal Register* 38844 (July 1, 2011) (hereinafter the "Proposed Rule").

the drought will have an impact upon the supply and price of agricultural commodities; however, EPA stopped short of considering its impact in establishing the biomass-based diesel volumetric requirement for 2013:

> Cost estimates do not account for projections in recent trends in crop yields and grain prices resulting from drought conditions that are occurring in many areas of the country.[8]
>
> * * * *
>
> It should be noted that the projections in Table III.B-1 do not account for recent trends in crop yields and grain prices resulting from drought conditions that are occurring in many areas of the country. Given the wide range of feedstocks from which biodiesel can be produced, the ultimate impact of these drought conditions on the mix of biodiesel feedstocks in 2013 is difficult to predict at this time.[9]

The agency states that it "cannot predict the exact impact that these increases in soybean and soybean oil prices will have on food prices in general;" however, that is exactly what Congress requires of the agency *before* it decides to increase the mandate for biomass-based diesel.[10]

Setting the biomass-based diesel mandate at 1.0 billion gallons for 2013, the statutory minimum, allows fair competition between the biofuels and livestock/food industries for soybean supplies. The Administration should not favor soybean biodiesel producers at the expense of the livestock/food industries and the U.S. consumer. The price impacts on agricultural commodities and the current drought are sufficient justification for the Administration to reconsider the renewable fuel volume for biomass-based diesel in 2013.

The preamble to the final rule also contains a discussion of the price of soy oil in 2013 and estimates that its price will be $0.45 per pound under the mandate instead of $0.42 under the billion gallons. This 7 percent increase is significant and as a food source is a factor that Congress mandated EPA to consider in its establishment of the 2013 biomass-based diesel mandate. In the category of new information that is available since the Administrator made her decision, we note that the soy oil futures prices are significantly higher (10 percent) for 2013 than the Administrator's 45 cent estimate.[11] This new information concerning soy oil prices is

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[8] 77 *Federal Register* at 59459, note 3.

[9] *Id.* at 59463/2.

[10] *Id.* at 59465/1.

[11] Soy oil futures prices for 2013 currently vary from 49 cents to 50.5 cents. *See* Commodities Futures prices at: www.cnbc.com, last accessed on November 8, 2012.

directly relevant to the statutory criteria EPA applies in determining the appropriate amount of biomass-based diesel for 2013.[12]

2. RIN Fraud

EPA is now well aware of the fact that biodiesel producers have inflated the amount of biodiesel actually produced under the RFS mandate. A significant portion of this fraud stems from biodiesel producers generating Renewable Identification Numbers ("RINs") that do not correspond to the gallons of biodiesel they have produced. Another potential source of significant fraud is the failure to retire RINs that correspond to the number of gallons of biomass-based diesel that are exported.

To date, EPA has initiated enforcement actions based on 140 million fraudulent RINs. These RINs represent between 6 and 12 percent of the entire biodiesel market and raise a serious question as to the true amount of biodiesel that has been produced. Moreover, we are aware of several ongoing investigations into additional biodiesel producer fraud that would have a material impact on EPA's estimate of the amount of gallons actually produced. While the existence of RIN fraud was unknown during the public comment period, EPA now recognizes that it is a materially significant problem and is considering regulatory changes to address the predicament.[13] The large number of invalid RINs represents a serious disparity in the estimates of expected commercial rate of biodiesel production and also impacts EPA's conclusion that an increase to 1.28 billion gallons represents only a "moderate" increase in the biomass-based diesel mandate.

3. Diesel Fuel Exports - Impact on Domestic Energy Security

The Administrator mistakenly concludes that the 2013 increase in biomass-based diesel beyond the billion gallon statutory floor will improve U.S. energy security.

> This final standard will assure an increased use of biomass-based diesel in the U.S. and help to improve U.S. energy security. Reducing U.S. petroleum imports and increasing the diversity of U.S. liquid fuel supplies lowers both the financial and strategic

[12] On November 16, 2012, EPA denied multiple petitions to waive the RFS requirements for ethanol based upon the impact of the drought. We note that the legal standard for reviewing RFS waiver petitions differs from the statutory criteria EPA must consider in establishing the BBD volumetric requirements for 2013. The standard for waiving the RFS is one of severe economic harm, while the criteria for establishing the BBD volumes include *inter alia* an analysis of the supply of agricultural commodities.

[13] U.S. Environmental Protection Agency, *Public Release of Draft Quality Assurance Plan Requirements*, EPA-420-B-12-063 (October 31, 2012). http://www.epa.gov/otaq/fuels/renewablefuels/documents/420b12063.pdf.

> risks caused by potential sudden disruptions in the supply of imported petroleum to the U.S.

This quote represents a fundamental misunderstanding of the difference between petroleum crude oil and finished transportation fuels. The increase in biomass-based diesel use in the U.S. from 1.0 billion gallons to 1.28 billion gallons will not displace a single barrel of imported crude oil. This is primarily because biomass-based diesel is a substitute for finished diesel fuel and has no impact upon the U.S. demand for gasoline.

Each barrel of oil refined yields approximately 19 gallons of gasoline and 11 gallons of diesel fuel, as well as 12 gallons of other petroleum-derived products.[14] While these proportions can be adjusted on the margins, in manufacturing gasoline the United States generates more diesel fuel than it can consume domestically.[15] As such, the U.S. has become a net exporter of diesel fuel. For this reason, any requirement to blend biomass-based diesel will not reduce the amount of crude oil imported into the U.S., it simply will cause an increase in the amount of exported diesel fuel it displaces. Thus, the Final Rule's increase in biomass-based diesel of 280 million gallons will result in a corresponding increase in the export of petroleum-derived diesel fuel of 280 million gallons. It will have no impact upon the amount of crude oil imported and therefore will have no impact on domestic energy security. These facts have a direct impact on the Administrator's analysis of the statutory criterion of energy security and warrants reconsideration of the decision to extend the biomass-based diesel mandate beyond the 1.0 billion gallon statutory threshold.

The preamble to the Final Rule suggests that the Administrator extrapolated perceived energy security benefits from the RFS generally and applied that analysis to this rulemaking.

> Thus, on balance, each gallon of fuel saved as a consequence of the renewable fuel standards is anticipated to reduce total U.S. imports of petroleum by 0.95 gallons.[16]

As demonstrated above and based on the fact that we export diesel fuel, this extrapolation produces an erroneous conclusion with respect to the impact on energy security from increasing the biomass-based diesel mandate in 2013.[17]

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[14] *See* Energy Information Administration, *Products Made for a Barrel of Crude Oil*, http://www.eia.gov/energyexplained/index.cfm?page=oil_home.

[15] According to the Energy Information Administration, from January 2012 to August 2012, the U.S. exported more than 213 million barrels of distillate fuel. http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MDIEXUS1&f=M

[16] 77 *Federal Register* at 59470/2.

[17] The Final Rule includes an energy security benefit of $0.15 per gallon derived from the macroeconomic disruption and adjustment costs component of the energy security premium. *See* 77 *Federal Register* at 59471/3. For the reasons stated herein, this benefit is illusory.

The Agency acknowledges that "the U.S. is projected to be a net exporter of diesel fuel in 2013." Notwithstanding this realization, the Agency has ignored Congress' instruction to analyze the energy security impact of this specific Final Rule.

> Our energy security analysis does not evaluate the energy security benefits of individual finished petroleum products; rather, our analysis takes into account the energy security benefits of overall net petroleum product imports.

Congress did not give the Administrator the authority to ignore one of the six statutory criteria in her determination of whether to increase the biomass-based diesel mandate beyond the 1.0 billion gallon statutory threshold.

Although we believe that the Agency acted arbitrarily in extrapolating its overall RFS energy security analysis to the Final Rule affecting only the biomass-based diesel mandate, we note a significant change in facts underlying the Agency's original analysis of U.S. energy security. Following the close of the comment period the National Petroleum Council released an 18-month study of North American natural gas and oil resources.[18] This study demonstrates that the United States has much greater access to North American sources of energy than previously thought and warrants reconsideration of the Administrator's conclusions on the impact this rule and the RFS will have on U.S. energy security.

4. Job Creation

EPA's conclusions on the employment benefits associated with an increase in biomass-based diesel from 1.0 billion gallons to 1.28 billion gallons are overstated given the recent closures of certain biodiesel facilities and the underutilization of facilities that have maintained operations. Here again EPA is using biased information provided by the NBB rather than conducting its own analysis. EPA is aware that many of the biodiesel producers are operating at a reduced rate, some have been idled, and others have permanently closed. Reliance on a prior study as to the overall benefits to rural employment under the RFS ignores some of the current facts concerning biodiesel plant utilization that would have a material impact on EPA's conclusions with respect to job creation. EPA should have reviewed the 200 biodiesel producers provided on the NBB list and determined the status and current utilization rates of these facilities as part of its obligation to analyze the statutory criteria. It is far more economical to expand production at an existing plant that is underutilized than it is to bring idle biodiesel plants back on line. Unfortunately, the number of jobs that will be created by increasing the throughput at an

[18] National Petroleum Council, *Prudent Development: Realizing the Potential of North America's Abundant Natural Gas and Oil Resources*, (September 2011).

already operational plant is nowhere near the NBB estimate of 30 to 40 people.[19] Other estimates of employment provided by NBB are similarly overstated and EPA should independently investigate these facts. For example, some plants are fed by pipeline while most others are located very close to their feedstock source, rendering NBB's estimate of additional transportation workers unrealistic, since it assumes that each driver can make only one delivery per day.[20]

We also note, that it is improper to consider only the positive employment benefits associated with an increase in the biomass-based diesel mandate and simultaneously acknowledge that the corresponding loss in employment in other economic sectors is not quantifiable and therefore may be ignored.

5. Costs and the Impact on the Consumer

EPA's legal requirement to blend biomass-based diesel will result in increased production and/or imports of this fuel, as obligated parties must comply with the mandate. The question remains, however, at what cost can this fuel be produced under the mandate.

EPA acknowledged the need to restrain the growth of the biomass-based diesel mandate.

> In the NPRM we indicated that, based on the limited information available on the current and historical operation of the RFS program, it would be prudent for 2013 to consider only *moderate increases* in biomass-based diesel above the statutory minimum of 1.0 billion gallons.

Notwithstanding this pronouncement, EPA went on to promulgate a 28% increase in the volumetric mandate. This percentage increase during a time of slow economic growth is very aggressive and difficult to justify under the banner of moderate growth.[21]

EPA estimates that the cost of increasing the biomass-based diesel mandate from 1.0 billion to 1.28 billion will add between $253 million and $381 million to consumers transportation fuel bill in 2013. We note that this addition to the Nation's transportation fuel bill comes at a time when economic conditions in the country are poor and millions who depend upon transportation fuels remain out of work or underemployed.

At the close of the comment period, EPA had no way to predict the state of the economy in 2013 or whether the $1 per gallon blending credit would be extended by Congress; however,

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[19] On a somewhat related issue, our discussions with a well-known biodiesel plant auditor indicate that the average employment is closer to 25 individuals per plant.

[20] *See* 77 *Federal Register* at 59477/1.

[21] 77 *Federal Register* at 59461/1 (emphasis added).

at the time the Final Rule was issued, EPA should have done everything in its power to lower the costs of transportation fuels for consumers and under no circumstances should have exercised its discretion to mandate the use of biodiesel, a fuel that is significantly more expensive than ULSD. Indeed, Congress requires EPA to consider the cost to consumers as one of the statutory criteria that frames its annual decision to set the biomass-based diesel volumetric requirement.

6. Potential Carbon Reductions

Under the statutory criteria, EPA must consider the environmental impact of its decision to expand the biomass-based diesel mandate by 280 million gallons. We note that because biomass-based diesel operates as a requirement nested within the advanced biofuels mandate, the likely impact of this decision is to ensure the use of additional biomass-based diesel at the expense of ethanol derived from sugar cane. Focusing on the carbon emissions associated with these two fuels, soy-based biodiesel has an average carbon intensity that is ten percent greater than ethanol derived from sugarcane, resulting in the likely increase in carbon emissions from EPA's decision to increase biomass-based diesel by 280 million gallons.[22]

C. The Statutory Factors Must be Applied Annually

EPA has chosen to downplay the statutory requirement to apply these factors annually for each year that it promulgates a biomass-based diesel quantity following 2012 and instead has relied upon the long-term RFS economic analysis, which is contrary to Congress' intent in specifying the six factors to be examined each year.

> The statute is forward-looking in that it created a program whose energy and environmental benefits are intended to grow over time. To evaluate the program on the basis of only one early year's impacts, as part of near-term implementation, would be to paint an unbalanced and incomplete picture.[23]

In substituting the long-term costs and benefits in place of the specific statutory criteria that are to be applied to biomass-based diesel volumes each year following 2012, EPA has ignored the consumer safeguards that Congress wrote into the statute for each year in which EPA is required to establish a biomass-based diesel volumetric requirement. To safeguard consumers and other interested parties, Congress intended EPA to adjust the volumetric requirement annually based on factors that change each year. Relying on a long-term analysis that ignores the specific variables that change on a more frequent basis is a significant departure from Congressional intent.

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[22] *See* 75 *Federal Register* 14669, 14790-91 (March 26, 2010).

[23] 77 *Federal Register* at 59482/3.

Congress intended to provide an insurance policy to the biodiesel producing industry by creating a floor of 1.0 billion gallons of biomass-based diesel that must be blended each year.[24] Any decision to exceed that floor is a discretionary decision that must be is based upon the annual application of the enumerated statutory factors as directed by Congress.

CONCLUSION

At the close of the comment period, EPA could not foresee whether Congress would eliminate the $1 per gallon biodiesel blending credit, the impact of the drought on feedstock supplies and prices, the extent of RIN fraud in the biodiesel industry, and the growth of diesel exports ameliorating the energy security benefits from biodiesel, all of which have a material impact upon EPA's analyses of the statutory criteria underlying the establishment of the annual biomass-based diesel requirement. Based upon these changed facts and new information, the Administrator must reconsider her decision to require a 28 percent increase in biomass-based diesel above the statutory minimum established by Congress.

Respectfully submitted,

Richard Moskowitz
General Counsel

cc: Gina McCarthy
Chris Grundler
Byron Bunker
Paul Machiele

[24] *See* 42 U.S.C. § 7545(o)(2)(B)(ii)(v).

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October 10, 2013

The Honorable Gina McCarthy
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue
Washington, D.C.

RE: Petition for Reconsideration of 2013 Renewable Fuel Standards, Waiver of 2013 Cellulosic Biofuel Requirements and Other Relief
Docket No. EPA-HQ-OAR-2012-0546

Dear Administrator McCarthy:

Pursuant to Section 307(d)(7)(B) of the Clean Air Act ("CAA"), the American Fuel & Petrochemical Manufacturers ("AFPM")[1] hereby petitions you to convene a proceeding to reconsider certain aspects of the U.S. Environmental Protection Agency's ("Agency" or "EPA") final rule entitled *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards* ("Final Rule").[2]

Three issues warrant reconsideration: (1) EPA's rulemaking timeline (*i.e.*, its failure to comply with CAA deadlines) and its reliance on data requested and generated during the 2013 compliance period that was not subject to notice and comment; (2) the methodology EPA used to estimate cellulosic production and to establish 2013 cellulosic biofuel standards; and (3) the grant of a small refinery/refiner exemption resulting in the reallocation of compliance burdens to other obligated parties.

EPA's failure to establish a transparent and permissible methodology for promulgating renewable fuel standards and to meet the deadlines mandated by Congress is disrupting obligated parties' compliance programs and causing substantial harm. Congress required EPA to establish these standards by November 30 of each year (prior to a compliance year) so that obligated parties would have sufficient lead time to develop and implement appropriate regulatory compliance strategies. Obviously, parties are denied the lead time envisioned by Congress when,

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[1] AFPM is a national trade association of more than 400 companies. Its members are obligated parties under the Renewable Fuel Standard ("RFS") and include virtually all U.S. refiners and petrochemical manufacturers. AFPM members supply consumers with a wide variety of products and services used daily in their homes and businesses. These products include gasoline, diesel fuel, home heating oil, jet fuel, lubricants and the chemicals that serve as "building blocks" in making diverse products, such as plastics, clothing, medicine and computers.

[2] 78 Fed. Reg. 49794 (August 15, 2013).

as it did here, EPA promulgates renewable fuel standards well into the compliance year and then applies them retroactively. Matters are made even worse when EPA relies upon data requested and generated after the start of the compliance period and for which stakeholders are denied a meaningful opportunity to review and to comment. The timeline and rulemaking process that EPA followed for this rule, as well as the last few years, completely ignores the regulatory scheme contemplated by Congress.

Going forward, we urge the Agency to follow the timelines mandated by CAA section 211(o) and to develop a process that allows for informed public comment before publication of the final rule on or before November 30. EPA also must work with EIA to ensure that it provides the estimates required under CAA section 211(o)(3)(A) in a manner that would enable EPA to propose and publish a final RFS rule by November 30.

In the meantime, and for the reasons set forth below, we respectfully request that you grant reconsideration to allow the public to comment on these centrally relevant issues. In responding to and publishing this petition for reconsideration, EPA should describe in detail the methodology it used to establish the 2013 cellulosic biofuel standard and include an analysis as to why the methodology continues to yield estimates of cellulosic production that consistently have been far above actual production. EPA also should suggest and take comment on revisions to this methodology that will correct this legal deficiency.

To address the discrepancy between EPA's predicted cellulosic biofuel production and actual production caused by the Agency's application of an opaque and unrealistic methodology, AFPM also is petitioning EPA to waive the 2013 cellulosic biofuel requirements in accordance with CAA Section 211(o)(7)(A). As detailed in this petition, production data utilized by EPA in establishing such requirements is not credible and actual production of cellulosic biofuel in 2013 will fall far short of the level EPA established in the Final Rule. EPA must therefore waive the 2013 cellulosic biofuel requirements on the basis of inadequate domestic supply.

We discuss the issues that underlie our requests in greater detail below.

I. EPA's Repeated Failure to Meet the Clean Air Act's Explicit Deadline for Establishing RFS Requirements and Standards

CAA section 211(o)(3)(B) requires the EPA Administrator "[n]ot later than November 30 of each calendar year[]" to "determine and publish in the Federal Register with respect to the following calendar year, the renewable fuel obligation that ensures that the requirements of [CAA section (o)(2)] are met." In this regard, the RFS is not self-executing. Obligated parties do not know their precise obligations for any year until EPA acts to establish renewable fuel obligations, applicable percentage requirements, and the level of transportation fuel projected

to be sold or introduced into commerce for the same year. The explicit intent of Congress in enacting the RFS standard-setting process and the dates provided in CAA section 211(o)(3)(A)-(B) is abundantly clear. It is designed to inform obligated parties, *prior to each compliance year*, of the full extent of their RFS obligations in the coming year.

EPA failed to meet this statutory deadline with regard to all renewable fuel standards except biomass-based diesel and for all volume percentage requirements that apply in 2013. In fact, EPA did not even *propose* the percentage requirements for 2013 until two months after the date established in the CAA for *final* standards. Final renewable fuel standards were not in place and effective until August 15, over nine months after the date required by the CAA and more than halfway through the 2013 RFS compliance year.

As a result of EPA's long-delayed rulemaking process, obligated parties were denied the regulatory certainty contemplated under the CAA. In addition – and directly as a result of the long delay in rulemaking – the RFS requirements that apply to every obligated party also changed. In the Final Rule, EPA increased the level of required compliance with the renewable fuel standard from 9.63%[3] to 9.74%.[4] Delaying the publication of the Final Rule by more than 8 months after the beginning of the compliance year injured obligated parties who typically purchased the required number of RINs needed for compliance throughout the calendar year. Obligated parties were placed in a position of having to plan and implement the acquisition of *millions* of additional expensive Renewable Identification Numbers ("RINs") for 2013 when most of the compliance year was already over.[5] EPA's delayed issuance of the 2013 RFS volumes forces obligated parties to make blind financial bets on what EPA might do, when it will act, and how its actions will affect RIN prices. The impacts of EPA's delays are not theoretical.

EPA's violation of CAA Section 211(o)(3) timelines also facilitated the use of information that was not disclosed to the public, depriving all commenters of an ability to review

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[3] 78 Fed. Reg. at 9,286.

[4] 78 Fed. Reg. at 49,826.

[5] Due to the delays in the 2013 RFS rulemaking, EPA received comments arguing that the Agency should not impose any RFS requirements in 2013, that EPA should limit RFS requirements to fuel introduced into commerce after date of a final rule, or that EPA should increase percentage standards (but apply them only to production of gasoline or diesel after the issuance of a final rule). EPA rejected all of these options. Instead, the final rule extends the date for demonstration of compliance with 2013 RFS standards by four months, to June 30, 2014. Extending the date for making compliance *demonstrations*, however, does not alter the fact that compliance *obligations* date back to January 1, 2013. Thus, EPA's "solution" does not address the real harms of its delay.

the information that formed the basis of the Final Rule. As explained in more detail below, AFPM and other commenters could not have known that EPA would request an additional EIA estimate in April 2013 and use this estimate in lieu of the EIA estimate required by CAA section 211(o)(3). Nor did AFPM or other commenters have the ability to review and comment on new producer information that formed the basis of a lower – but still impermissibly high – cellulosic biofuel requirement for 2013. Reconsideration of the rule is therefore required.

The reconsideration process does not allow EPA to "go back in time" and directly cure its violation of the statutory timeline established in CAA section 211(o). But EPA can take corrective action. Specifically, EPA should:

> (1) agree to solicit comment on what data the Agency can use to establish renewable fuel standards for any given year and whether it was appropriate for EPA to base the 2013 standards on data solicited and otherwise provided after commencement of the 2013 compliance period; and
>
> (2) obtain and publish the EIA estimate required under CAA Section 211(o)(3)(A) in future years at a point in time that would allow for an adequate period of public comment prior to the required determination of the renewable fuel obligation and applicable percentage requirements by November 30.

We also remain concerned with the Agency's complacency in repeatedly ignoring the RFS statutory deadlines. Indeed, EPA seems poised to miss the deadline for issuing the 2014 standards and has signaled its intent to do so in its Regulatory Announcement accompanying the Final Rule:

> Further, EPA is providing additional lead time to obligated parties by extending the date by which compliance with the 2013 standards must be demonstrated to June 30, 2014. EPA chose this date both to provide additional time, and because *we project that the final rule establishing the 2014 RFS standards should be finalized by that date.*[6]

EPA must therefore act now in accordance with the requests contained in this petition to ensure that it will meet its annual obligation to implement RFS requirements.

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[6] U.S. Environmental Protection Agency, Regulatory Announcement: *EPA Finalizes 2013 Renewable Fuel Standards*, http://www.epa.gov/otaq/fuels/renewablefuels/documents/420f13042.pdf (accessed October 7, 2013).

II. EPA Must Reconsider the Annual Percentage Standard for Cellulosic Biofuel

During its delay in promulgating the 2013 Final Rule, EPA solicited, received, and relied upon additional information from EIA and cellulosic biofuel producers in setting the final renewable fuel standards, denying obligated parties the opportunity to comment on material information in violation of the Administrative Procedures Act ("APA"). EPA also utilized an opaque methodology for projecting annual cellulosic biofuel volumes that is inherently flawed, as borne out by actual production data. Moreover, to the extent that the methodology is "new," as alleged by EPA, it was not adequately noticed or explained, and thus, there has been no opportunity for public review and comment.

EPA established a percentage standard of 0.004% for cellulosic biofuel based on its projection of 6 million ethanol-equivalent gallons of cellulosic biofuel production. EPA offered several bases for its projection: (1) a May 8, 2013 EIA projection of 2013 cellulosic biofuel volumes undertaken at EPA's request;[7] (2) individual producers' production plans; (3) individual producers' "progress to date" reports; and (4) comments received in response to the Notice of Proposed Rulemaking ("Proposed Rule").[8] With the exception of certain comments filed in response to the Proposed Rule, none of this information was available during the public comment period. Yet, by EPA's own admission, this information was of central relevance to the Final Rule. Indeed, EPA proclaimed that this new information "*led to* the 2013 applicable volume requirement" for cellulosic biofuel.[9] For these reasons reconsideration is warranted under CAA Section 307(d)(7)(B).

A. EPA's Methodology for Setting the Cellulosic Biofuel Standards was Flawed and, to the Extent it is New, as Alleged by EPA, Should Have Been Subject to Review and Comment

Although EPA's Final Rule cites information that it asserts factored into the final RFS volumetric and percentage standards for 2013, the precise process that EPA used to establish the standards remains opaque. For its part, EPA asserts that it applied a new, "neutral methodology" in developing the Final Rule. Assuming *arguendo* that EPA did in fact use a new methodology, reconsideration is warranted because the new methodology was not noticed, let alone explained

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[7] Letter from A. Michael Schaal, Director, Office of Petroleum, Natural Gas, and Biofuels Analysis, U.S. Energy Information Administration, to Chris Grundler, Director, Office of Transportation and Air Quality, EPA (May 8, 2013) *hereinafter* the "Schaal Letter."

[8] *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards*, 78 Fed. Reg. 9,282 (February 7, 2013) *hereinafter* the "Proposed Rule."

[9] *Id.* at 49,796 (emphasis added).

in the Proposed Rule. Stakeholders had no opportunity to review and comment upon the purported "new methodology" and how it may or may not differ from the methodology vacated in *American Petroleum Institute v. EPA*.[10]

Despite EPA's assertions to the contrary, it appears that EPA either used the same methodology that the D.C. Circuit invalidated or one substantially similar and equally flawed. As explained below in section II.B., EPA's methodology once again employed an "aspirational" framework, resulting in unrealistic projections of cellulosic biofuel production.

EPA discussed *API v. EPA* in the preamble to the Final Rule and cited it as the reason for establishing a "neutral methodology"[11] that more accurately projects cellulosic biofuel production by excluding "highly uncertain" production data. EPA also stated that it created "[b]enchmarks for how quickly new facilities ramp up to full production . . . to assess the reasonableness of the production estimates received from producers."[12]

Nothing in the Proposed Rule, however, gave notice of this methodology or of the creation of benchmarks. Although *API v. EPA* was decided prior to the Proposed Rule's publication in the *Federal Register*, EPA made only passing reference to the decision in the Proposed Rule. EPA merely stated that its projection of 11 million gallons of cellulosic biodiesel production (4.4 million gallons above the October 2012 EIA estimate) was its "best estimate of what will actually happen in 2013." It made no reference to a "neutral methodology;" in fact, the Agency did not even use the term "methodology" in the Proposed Rule. Nor did the Agency discuss specific benchmarks that would apply to different types of cellulosic biofuel facilities.[13] Thus, there is no way that stakeholders could have been on notice that EPA was establishing a methodology, let alone provided sufficient information to meaningfully comment on the proposal. Reconsideration is the only way to address this procedural deficiency.

It also is entirely unclear what consistent process or methodology EPA used in the Proposed Rule to evaluate information on cellulosic biofuel production. EPA used a *different* "ramp up" schedule for the INEOS Bio and KiOR facilities in the Proposed Rule than it used in

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[10] No. 12-1139, D.C. Cir. 2013 (hereinafter cited as "*API v. EPA*").

[11] We would note that the precise terms used in the decision called for an "outcome-neutral methodology" and not the "neutral methodology" that EPA asserts.

[12] 78 Fed. Reg. at 49,803.

[13] EPA's claim that it did not receive comments suggesting that this benchmark was inappropriate is puzzling given that EPA never stated it was proposing a "benchmark" in the Proposed Rule. 78 Fed. Reg. at 49,804.

the Final Rule, one based apparently on information from the producers themselves.[14] Thus, EPA provided no basis on which informed comment could be submitted on this aspect of the Final Rule prior to its publication, even though it is central to EPA's final production estimates and percentage standards for cellulosic biofuel.

Thus, at a minimum, EPA must grant reconsideration to address procedural deficiencies in the process leading to EPA's determination of the final cellulosic biofuel standard for 2013. As part of this process, EPA must make available all information on which the Agency relied in establishing the cellulosic standard and reconsider the levels established in the Final Rule. In addition, we request that EPA publish in the *Federal Register* and make available for public comment the Agency's methodology and benchmarks that it utilized in the Final Rule.

B. EPA's Methodology Continues to Produce Aspirational Results

In the Final Rule, EPA projected that KiOR would produce between 5 and 6 million gallons in 2013. Thus, KiOR accounts for 80 to 100% of EPA's projected cellulosic biofuel production in 2013. On this basis, as well as a projection of between 0 to 1 million gallons produced in 2013 by INEOS Bio, EPA projected a total of 6 million gallons of cellulosic biofuel production (in ethanol-equivalent gallons) for 2013, presumably during the last four to five months of the year.[15] On August 8, 2013, however, KiOR announced that production at its cellulosic biofuel plant would be 75% below forecast.[16] According to KiOR's announcement, total output for the year will be only 1 to 2 million gallons (or 1.5 to 3 million ethanol-equivalent gallons).

KiOR's latest production estimate is less than half of what EPA projected for 2013 and confirms that EPA's 2013 estimate and methodology for calculating cellulosic biofuel production are fundamentally flawed. EPA's methodology continues to produce aspirational results, far out of line with any reasonable expectation of actual production.[17] EPA must,

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[14] Specifically, EPA stated that, "*The ramp-up schedules estimated for these facilities differ from each other and were developed based on information received from the companies and EPA's knowledge of the production process used by each company.*" 78 Fed. Reg. at 9,293 (emphasis added). Moreover, EPA stated that the approach it was taking was appropriate and that it was not "re-opening the interpretation for comment in today's proposal." *Id.* at 9,294.

[15] 78 Fed. Reg. at 49,809.

[16] *Kior Falls as Biofuel Production Misses Forecast by 75%*, Ehren Goosens, Bloomberg News, accessed at www.bloomberg.com/news/2013-08-08/kior-falls-as-biofuel-production-misses-forecast-by-75-.html?cmpid=yhoo.

[17] EPA should have recognized that its cellulosic methodology continued to overestimate the quantity of cellulosic biofuel that would be produced. At the time the Administrator signed the final rule, EMTS data

consistent with the CAA, include a summary of the factual data on which a proposed rule is based and the "methodology used in obtaining the data and in analyzing the data."[18] This did not occur in the instant rulemaking.

C. EPA Relied On EIA Information that AFPM Members Had no Opportunity to Review and Provide Comment

EIA provided EPA with its estimate of cellulosic biofuel production for calendar year 2013 on October 18, 2012.[19] EIA provided this estimate in accordance with the requirements of CAA section 211(o)(3)(A), which requires EIA to provide EPA with an estimate by October 31 of each year "with respect to the following calendar year, of the volumes of transportation fuel, biomass-based diesel and cellulosic diesel to be sold or introduced into commerce in the United States…."[20] CAA section 211(o)(3)(B), in turn, states that "based on" this estimate, EPA must determine and publish in the *Federal Register* the renewable fuel obligation for the coming year, including the obligation for cellulosic biofuel "expressed in terms of a volume percentage of transportation fuel sold or introduced into commerce in the United States."[21]

EPA's Proposed Rule referenced the October 2012 EIA estimate in proposing the 2013 cellulosic biofuel volumetric levels.[22] Specifically, EPA stated that the "analyses that led to the proposed 2013 applicable volume requirement were based on our evaluation of EIA's projection for 2013 as well as individual producers' production plans and progress to date."[23] The Final Rule, however, is "based on" a different EIA estimate than the estimate used for the Proposed Rule, one that was not available during the comment period. Just three days before the comment period closed, EPA requested that EIA provide its "current forecast of U.S. cellulosic biofuel production in 2013."[24] EIA responded with a letter dated May 8, 2013 (the "Schaal Letter") that reduced its forecast for cellulosic biofuel production in 2013 from 9.6 million gallons to 4 million gallons. EPA did not post this updated estimate to the rulemaking

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confirmed that cellulosic biofuel production fell far short of what the Agency's methodology predicted for 2013.

[18] CAA section 307(d)(3).

[19] Letter from Adam Sieminski, Administrator U.S. Energy Information Administration, to Lisa Jackson, Administrator, Environmental Protection Agency (October 18, 2012).

[20] CAA § 211(o)(3)(A).

[21] Id. § 211(o)(3)(B).

[22] A copy of the EIA letter was posted to the docket on February 7, 2013.

[23] 78 Fed. Reg. at 9,824.

[24] *See* Schaal Letter. A copy of the outgoing April 5, 2013 letter from Mr. Chris Grundler requesting the new EIA analysis has not been posted in the docket for this rulemaking.

docket until August 15, 2013, denying the public any opportunity to review this analysis and provide informed comment on the EIA projections that were used in the Final Rule, or to question the use of "inherently uncertain" data in determining the level of the final renewable fuel obligation and percentage standards for cellulosic biofuel.[25]

The cellulosic biofuel production estimate contained in the Schaal letter is unquestionably of "central relevance to the outcome" of EPA's Final Rule. Indeed, EPA acknowledges that it gave the new EIA estimate "great respect"[26] and "great weight"[27] in the determination of the final cellulosic biofuel standards. Reconsideration of the Final Rule is thus warranted on this issue.

D. EPA Relied on Undisclosed Producer Production Information

The Final Rule is replete with additional examples where EPA relied on information that AFPM had no opportunity to review and provide comment. In the Final Rule, EPA states that to project the available volume of cellulosic biofuel in 2013 "we have *continued to obtain information* from the potential producers of cellulosic biofuels to help inform our annual projection . . . [and the Agency considered] *updated information from the companies expected to produce cellulosic biofuel*."[28] Although the Final Rule does not provide any detail as to when such discussions with producers occurred or what updated information was submitted to EPA, it is clear that at least some of these *ex parte* discussions and submissions took place after the date of the Proposed Rule and the close of the comment period.

An EPA document recently posted to the docket shows that there were over sixty telephone calls with cellulosic biofuel producers that were not disclosed until one week after the Final Rule was published in the Federal Register.[29] These calls included four telephone conversations – which occurred *after* the time period for public comment closed –with the two

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[25] It is also significant there are substantial differences between the Schaal Letter and the EIA estimate upon which the Proposed Rule was based. The Schaal Letter indicates that EIA's updated forecast is "inherently uncertain" and, in contrast to EIA's October 18, 2012 estimates, does not indicate what utilization rate or production volume EIA projects for two cellulosic biofuel facilities, information that is centrally relevant to EPA's final decision.

[26] 78 Fed. Reg. at 49,801.

[27] *Id.* at 49,804.

[28] 78 Fed. Reg. at 49,803 (emphasis added). In addition, it should be noted that a review of the docket performed on August 15, 2013 did not uncover a technical support document or other documents regarding updated information from cellulosic biofuel producers.

[29] *See* EPA-HQ-OAR-2012-0546-0155, posted September 9, 2013.

companies whose production information EPA relied on to establish the final 2013 cellulosic volume and percentage standards.[30] Despite these numerous contacts, however, we are unable to locate any information in the docket that identifies what information was shared with EPA in these meetings, including any technical data on actual fuel production or any projections of "ramp up" schedules for facilities involved. In essence, EPA relied on information in the Final Rule that still has not been made public. Nor is this an isolated event. EPA also apparently relied on other information generated and received after the close of the public comment period. For example, the preamble notes the fact that "INEOS Bio announced that it started commercial production on July 31, 2013."[31] Obviously, this announcement occurred well after the close of the comment period.

EPA based the final cellulosic biofuel percentage standard on its projected production volume for only two named facilities: INEOS Bio and KiOR. EPA projected production of 0 to 1 million gallons from INEOS Bio and 3-4 million gallons from KiOR. EPA noted that the Final Rule volume of 4 million gallons (*i.e.*, 6 million ethanol-equivalent gallons) was the midpoint of this range and calculated the percentage standard for cellulosic biofuel on this basis. The data and information that EPA assessed with regard to these two facilities, however, were based on "updated information" from these two facilities and other producers.

The INEOS Bio and KiOR information supporting the Final Rule were not available during the comment period. Stakeholders therefore had no opportunity to review or to provide comment on how or why EPA's assessment of INEOS Bio and KiOR's projected 2013 production changed between the Proposed Rule and the Final Rule. Nor was there an opportunity to evaluate whether the new information was credible, why EPA's assessment of the two facilities varied so widely between the Proposed Rule and the Final Rule, or whether the new information that EPA reviewed should result in a percentage standard for cellulosic biofuel *even lower* than the level established in the Final Rule. EPA's apparent presumption is that because the Final Rule lowered cellulosic biofuel requirements in comparison to the Proposed

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[30] *Id.*

[31] This statement may be based on a press release from INEOS Bio submitted to the docket on August 15, 2013, dated July 31, 2013. Notably, however, this press statement does not specifically project any cellulosic biofuel volume that will be produced that qualifies for RINs in 2013. *See* EPA-HQ-OAR-2012-0546-0149. A review of the docket on August 15, 2013 also did not reveal any information from "potential producers of cellulosic biofuels" or "updated information" from such companies apart from the press release noted above and comments submitted from INEOS BIO on April 8, 2013. The INEOS Bio comments state only that when at full production, 8 million gallons of cellulosic biofuel will be produced and that EPA should lessen production levels for the first half of 2013. Our docket search did not reveal individual comments submitted by KiOR. However, from the preamble to the Final Rule, it can be determined that EPA also considered KiOR's expected production from its Columbus, Mississippi facility based on a May 9, 2013 quarterly update.

Rule, this is sufficient to address any concerns the public might have. But AFPM and other commenters had no opportunity to argue that EPA should reject the new information as not being credible or that the information indicated that the cellulosic biofuel volume should be set at less than 4 million gallons (*i.e.*, 6 million ethanol-equivalent gallons). EPA must grant reconsideration to provide AFPM members with such an opportunity.

III. EPA Improperly Adjusted the Final Percentage Standards Based on a Small Refinery/Small Refiner Exemption that it did not Propose or Subject to Public Comment

EPA's Final Rule exempted a small refiner from compliance with the new renewable fuel standards. In the Proposed Rule, however, EPA stated that it had not approved any small refinery or small refiner exemptions for 2013 and "thus no adjustment has been made to the proposed standards to account for such exemptions."[32]

EPA's granting of the small refinery/small refiner exemption resulted in adjustment of the final percentage standards, which has meaningful implications for obligated parties.[33] Since EPA did not propose the adjustment, did not specify the annual production volume of the facility involved, and did not propose or take comment on the extent of the change in the final percentage standards, EPA must grant reconsideration to allow for review and comment of these issues.

We are aware that EPA generally provided in the Proposed Rule that if pending exemptions under CAA section 211(o)(9)(A)(ii)(II) were granted before finalizing the standards or a new small refiner or refinery requested an exemption (and it was approved in the time period between proposed rule and final action), EPA would "adjust the standards upward to account for the exempted volumes of gasoline."[34] But this generic reference to a possible course of action without any detail as to the volume of gasoline or diesel production involved and the possible effect on final percentage standards is insufficient to put commenters on notice of the resulting impact on other obligated parties. It is wholly impracticable to raise an objection to an action for which no detail has been provided.

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[32] 78 Fed. Reg. at 9,286.

[33] Id. at 49,798.

[34] Id. at 9,303. EPA should reinterpret how exemptions impact the amount of renewable fuel required in a given year. Congress included the exemption provision in the same section of the statute as the renewable mandates. It is reasonable to assume that the grant of a waiver should reduce the amount of renewable fuel required to be consumed in the time period to which the waiver applies.

Small refiners and small refineries, according to EPA's regulatory definitions, constitute 11.9% of gasoline production and 15.2% of diesel production. Therefore, the potential effects on the final percentage standards of granting exemptions are far from *de minimis*. Substantial costs may be incurred to purchase additional quantities of RINs to comply with the added burden of "making up" for the exempted production volumes. Regardless of whether the Proposed Rule put interested parties on notice of some hypothetical exemption, it was impossible to comment on the specific action that EPA has taken to adjust percentage standards in the Final Rule. Moreover, waiting until August to announce these increased renewable volume obligations ("RVO") for obligated parties is not harmless error given the common compliance strategy of purchasing the requisite number of RINs throughout the calendar year and the recent volatility in the price of RINs.

In discussing the small refiner exemption, EPA acknowledged that it would be inappropriate to adjust the annual standards to reflect waivers issued after the Final Rule due to an inconsistency with the statutory text and an increase in uncertainty for obligated parties:

> As stated in the final rule establishing the 2011 standards, 'EPA believes 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.' Thus, any additional exemptions for small refineries or small refiners that are issued after today will not affect the 2013 standards.[35]

Despite this acknowledgement, EPA arbitrarily ignored this rationale in promulgating the renewable fuel standards based on exemptions issued after the November 2012 statutory deadline. EPA's extraordinary delay in issuing the Final Rule exacerbated this error. Exemptions issued to refiners following the statutory deadline should not trigger adjustments to other refiners' RVOs.

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[35] Id. at 49,825.

IV. Petition for Waiver of 2013 Cellulosic Biofuel Standard

Pursuant to CAA Section 211(o)(7)(A)(ii), AFPM, on behalf of its member companies,[36] submits this petition requesting that the Administrator waive the volumes of cellulosic biofuel required for the 2013 compliance year. This waiver petition is based upon the fact that there will be an "inadequate domestic supply" of cellulosic biofuel available for compliance with the 2013 cellulosic standards promulgated in the Final Rule.

It is clear from current production numbers and cellulosic biofuel producer statements that the actual amount of cellulosic RINs available for compliance with the 2013 standard will be significantly less than EPA's mandated volume of 6.0 million ethanol-equivalent gallons. As of the date of this petition it is not practical to quantify the exact amount of cellulosic biofuel that must be waived; however, EPA should examine EMTS data on December 31, 2013, and issue a waiver equal to the difference between the 2013 cellulosic biofuel standard and the actual amount of cellulosic RINs available for compliance at the conclusion of the 2013 compliance year.

In support of this waiver request AFPM relies upon KiOR's statements on August 8, 2013 that it will produce less than half of the cellulosic biofuel that EPA projected.[37] AFPM also notes that the EMTS data available at the time of drafting this petition further confirms that the amount of cellulosic biofuel available for compliance with EPA's cellulosic mandate is inadequate. EMTS data show that only 129,731 D3 RINs and 93,645 D7 RINs have been generated in the first 8 months of 2013, with no RINs generated in August, the last month for which reports are available. These data confirm that there will be an inadequate domestic supply of cellulosic biofuel in 2013 and support AFPM's petition for a partial waiver of the 2013 cellulosic biofuel standard.

V. Conclusion

There are multiple grounds on which EPA must convene a proceeding to reconsider the Final Rule. In promulgating the Final Rule EPA relied heavily on information and data that was not available during the comment period and for which stakeholders and the public have had no

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[36] AFPM represents numerous refiners and importers of transportation fuel who are "persons subject to the requirements" of CAA Section 211(o)(2) and entitled to petition for a waiver. The RFS and requirements related to cellulosic biofuel directly implicates the interests of AFPM's members.

[37] *Kior Falls as Biofuel Production Misses Forecast by 75%*, Ehren Goosens, Bloomberg News, accessed at www.bloomberg.com/news/2013-08-08/kior-falls-as-biofuel-production-misses-forecast-by-75-.html?cmpid=yhoo. *See also* text and notes in Section II, *supra*.

opportunity to review and provide comment. Moreover, with respect to the cellulosic biofuel standard, the Agency again relied on a methodology that overpredicts actual production and, if this methodology was indeed "new," was not available for public comment. In addition, EPA also granted a small refinery/small refiner exemption that affected the percentage standards in the Final Rule. This, along with the improper recalculation of percentage standards for total renewable fuel, advanced biofuel, and biomass-based diesel, increased the compliance burden on all other obligated parties.

The process used in the Final Rule is at odds with both the specific requirements set forth in CAA section 211(o)(3) and the general statutory structure of the RFS program. As noted above, the CAA lays out an explicit procedure under which EIA estimates are required *at least 30 days prior* to the time of the determination of RFS volume and percentage standards, thus allowing for public dissemination of the same. The CAA also requires that renewable fuel standards and applicable percentage requirements be finalized at least one month prior to the start of each compliance year. This statutory schedule is intentional and designed to provide obligated parties with sufficient notice to facilitate their compliance with increasingly more onerous and expensive renewable fuel requirements.[38]

AFPM requests that EPA grant this petition for reconsideration and provide the following relief:

- Describe in detail the methodology EPA used to establish the 2013 cellulosic biofuel volume and percentage standards.
- Analyze why EPA's methodology to set cellulosic biofuel standards continues to yield inflated production estimates and propose and take comment on modifications to the methodology to correct this legal deficiency.
- Publish and take public comment on information concerning cellulosic production projections and other information that EPA relied on when establishing final 2013 RFS standards.
- Revise all renewable fuel percentage standards based upon EIA's gasoline and diesel consumption estimates in place prior to the commencement of the 2013 compliance period and explain how EPA will adjust its rulemaking procedure to conform to the statutory deadlines contained in CAA section 211(o) in the future.

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[38] We would note that CAA section 211(o) also provides EPA with a mechanism to correct errors in projecting renewable fuel standards through waivers provided in CAA section 211(o)(7).

- Waive the 2013 cellulosic biofuel standard based upon an inadequate domestic supply of cellulosic biofuel available for compliance.

AFPM looks forward to working with the Agency during this process. If you have questions concerning this Petition, please contact the undersigned at (202) 552-8474.

Respectfully submitted,

Richard Moskowitz
General Counsel

cc: Janet McCabe
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October 11, 2013

The Honorable Gina McCarthy
Administrator
United States Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Request for Reconsideration of EPA's Final Rulemaking "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards; Final Rule" issued on August 15, 2013 (Docket ID No. EPA-HQ-OAR-2012-0546).

Dear Administrator McCarthy:

The American Petroleum Institute ("API") submits this petition for administrative reconsideration of the final rule entitled "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards; Final Rule" published at 78 Federal Register 49794 (August 15, 2013) pursuant to section 307(d)(7)(B) of the Clean Air Act, 42 U.S.C. § 7607(d)(7)(B). It was impracticable for API to raise the objections raised in this petition during the public comment period - because they became known after the period for public comment (indeed, only when EPA published the final rule) - and these objections are of central relevance to the outcome of the rule.

API is a national trade association representing more than 500 companies involved in all aspects of the oil and natural gas industry, including those that are the obligated parties under the Renewable Fuel Standard ("RFS"). Our industry supports the use of biofuels, but the RFS is unrealistic and unworkable and should be repealed by Congress. EPA's implementation of the program contributes to the problem, and the 2013 Final Rule is no exception.

Three specific issues in the rulemaking to establish the 2013 standards merit reconsideration: (1) EPA failed to use the October 2012 EIA information regarding gasoline and diesel production estimates for 2013 and instead improperly relied on EIA information from 2013, after the compliance period began; (2) EPA's methodology to establish the cellulosic standard in 2013 continues to be flawed, and information clearly available to the Agency before the rule was finalized exposes this flawed methodology; and (3) EPA granted a small refiner exemption that improperly and retroactively raised the obligation for other obligated parties.

Use of New EIA Data

EPA failed to use the October 2012 EIA information regarding gasoline and diesel production estimates for 2013, even though the Agency proposed using this data set. Instead, EPA's final rule used EIA information

from 2013 - after the compliance period began. EPA did not propose this new methodology to set the standards, and API could not have raised its objections with this approach in the comment period.

Clean Air Act Section 211(o)(3) states:

> ***(3) Applicable percentages***
>
> ***(A) Provision of estimate of volumes of gasoline sales***
>
> *Not later than October 31 of each of calendar years 2005 through 2021, the Administrator of the Energy Information Administration shall provide to the Administrator of the Environmental Protection Agency an estimate, with respect to the following calendar year, of the volumes of transportation fuel, biomass-based diesel, and cellulosic biofuel projected to be sold or introduced into commerce in the United States.*
>
> ***(B) Determination of applicable percentages***
>
> > ***(i)****In general Not later than November 30 of each of calendar years 2005 through 2021, based on the estimate provided under subparagraph (A), the Administrator of the Environmental Protection Agency shall determine and publish in the Federal Register, with respect to the following calendar year, the renewable fuel obligation that ensures that the requirements of paragraph (2) are met.*

EPA's Proposed Rule states[1]:

> *"The Act requires EPA to base the standards on an EIA estimate of the amount of gasoline and diesel that will be sold or introduced into commerce for that year. The four separate renewable fuel standards for 2013 are based on the gasoline, ethanol, diesel, and biodiesel consumption volumes projected by EIA. [Footnote: Letter, Adam Sieminski, Administrator, U.S. Energy Information Administration, to Lisa P. Jackson, Administrator, U.S. EPA, October 18, 2012.]*

The Clean Air Act directs EPA to set the subsequent year's standards based on the EIA estimate due October 31. EPA has no discretionary authority to use other subsequent estimates, and EPA gave no indication in the Proposed Rule that the Agency would consider using other estimates. It was not appropriate for EPA to solicit EIA for a revised fuel demand estimate, and it was improper for EPA to set the volume obligations based on the new information.

EPA acknowledges the tardiness of the rule, and explains that its delay is the rationale for using more up to date information. Conventional wisdom might suggest that the most up-to-date transportation fuel demand information will render the most accurate results, but, in reality, this assumption founders.

Obligated parties must acquire the proper number of RINs to demonstrate compliance. Regulatory certainty before January 1 of the compliance year is needed for efficient planning and logistics purposes. The 2013 RFS proposed rule which was published late on February 7, 2013 included an RFS total renewable standard of 9.63%; the final rule published on August 15, 2013 revised that standard to 9.74%. This change can have material impact on obligated parties' compliance plans.

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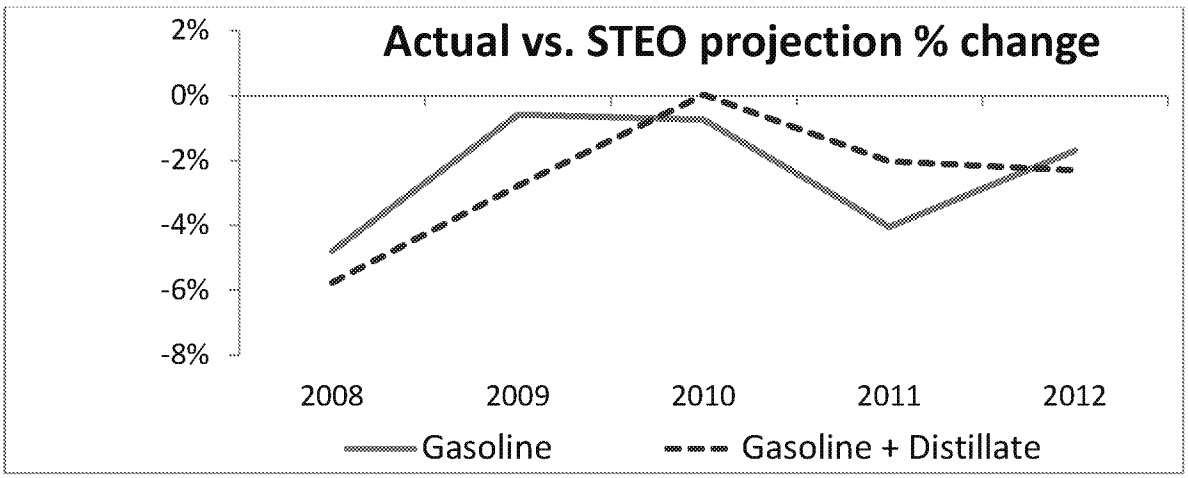
[1] "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards; Proposed Rule." *Federal Register* Vol. 78, No. 26 (February 7, 2013): 9302

Due to the forward-looking projections required by statute, the RFS will always have inherent variability with respect to the transportation demand projections (see chart below). Congress recognized the need for regulatory certainty by requiring final rules by November 30, regardless of future changes in transportation demand. EPA acted outside its scope of authority in establishing RFS requirements that were based on information made available so late into the compliance period. EPA placed the May 8th EIA information in the docket on August 15th, raising additional concerns that the Agency is acting in a manner that total disregards obligated parties' need for regulatory certainty and only complicates compliance.



Based on October STEO and EIA data on actual fuel consumption

EPA's Cellulosic Biofuel Methodology

API provided comment to the Proposed Rule to establish the 2013 cellulosic standard stating that the proposed cellulosic standard was aspirational, arbitrary, and out of touch with reality. EPA has apparently not changed its "self-fulfilling prophesy" approach as EPA has failed to adopt a neutral methodology in the proposed or final rules. The final 2013 requirements are volumetrically lower than what was proposed, yet the Proposed Rule and Final Rule are equally unrealistic considering that the final was published so late in the year. New information now available clearly demonstrates that EPA's methodology and process used to develop the final 2013 standards were flawed and merit reconsideration. The information recently made available is regarding the capability of the KiOR facility in Columbus, Mississippi to meet its share of EPA's projected cellulosic production.

EPA finalized a cellulosic biofuel requirement that presumes a capability by KiOR to produce 3 to 4 million physical gallons (5 to 6 million ethanol equivalent gallons) of cellulosic biofuel. EPA supports this estimate with the fact that KiOR's Columbus, Mississippi facility began production in March 2013; and on May 9th the

company projected total 2013 production in the range of 3 to 5 million physical gallons. The May 9th conference call statement from KiOR President and CEO Fred Cannon below provides additional context:

> *"we expect that total fuel production during the second quarter will range between 300,000 & 500,000 gallons, keeping us on track to fall within our projected production range of 3 million to 5 million gallons for 2013.*

EPA EMTS data show about 5,000 physical gallons were produced in March; and continuous production was apparently not achieved as evidenced by the lack of cellulosic RIN regeneration in April or May. EMTS shows an additional 68,000 physical gallons were produced in June, far short of KiOR's projected 300,000 to 500,000 gallons second quarter production. KiOR's inability to ramp up to meet its production goal for the 2nd quarter of 2013, combined with the miniscule 1st quarter 2013 volume raises serious doubt that the company will meet its earlier projection of production for the entire 2013 calendar year.

In EPA's discussion of the viability of INEO's production facility, the Final Rule notes that initial production was announced on July 31, indicating EPA did continue to track individual cellulosic producer progress immediately prior to finalizing the rule. Yet, EPA's own EMTS data available in late July showed KiOR production estimates from May were no longer realistic. EPA apparently continued to rely on public statements from KiOR made in May that were clearly outdated.

Immediately after EPA made a pre-publication version of the final 2013 standards available, KiOR held a conference call on August 8th to discuss second quarter results. The company announced expectations to produce 1 to 2 million gallons of cellulosic biofuel in 2013, and to achieve normal, steady-state optimal operations at the Columbus facility in the first half of 2014. The news indicates that EPA either did not continue to track KiOR's progress, or that EPA did continue to monitor progress but intended to set aspirational standards. It is additionally concerning that EPA appears to be inconsistent in evaluating individual cellulosic facilities, selectively using information that increases the standard.

API has some concerns with EPA's use of cellulosic producer information obtained in the compliance period. However, very little cellulosic biofuel has been produced and unlike our concerns with the use of more recent EIA information raised earlier, obligated parties likely would not have behaved differently in the first 8.5 months of the year to comply with the cellulosic standard. API does not take position in this petition on the appropriateness of using cellulosic producer information obtained in the compliance period; the most recent information merely demonstrates how EPA continues to implement the standard with a flawed methodology, which is the basis for requiring reconsideration. EPA needs to use a more accurate methodology such as basing the volume on actual cellulosic production, rather than using selectively chosen, optimistic projections from companies when history shows are consistently wrong.

EPA should immediately reconsider the cellulosic biofuel standard and use a methodology that takes neutral aim at accuracy, as directed by the U.S. Court of Appeals for the D.C Circuit. API continues to recommend using three months of actual cellulosic production.

KiOR's ability to produce even the revised 1 to 2 million gallon estimate for 2013 is far from certain. On August 20th, a class action complaint was filed with the U.S. District Court; Southern District of Texas seeking to recover damages from KiOR's alleged violations of the Securities Exchange Act. The complaint claims that KiOR: *"continued to falsely reassure investors that the company remained on track to achieve commercially meaningful biofuel production levels at the Columbus facility."* While the lawsuit was only recently filed and will likely not be settled or decided for some time, EPA should be following these developments when considering how it will establish a methodology that aims at accuracy when developing projections for 2014 and beyond. API raised concerns for several years that potential cellulosic producers' volume estimates and timeframes have historically been overly-optimistic, and KiOR is no exception.

Most recently, EPA made EMTS data available for August 2013 which show that no D3 or D7 RINs were generated in this month, indicating that companies have not achieved steady state production of cellulosic biofuels. This information also lends further credibility to the API suggested methodology of using three consecutive months of producer data in setting the standard.

Small Refiner Exemption

The Clean Air Act allows for small refiner exemptions and/ or extensions based on an EIA study, or on a case by case basis as determined by EPA. EPA's timeliness in rulemaking development is critical to the implementation of the small refiner provisions. In the Final Rule, EPA references the following statements made in the Final Rule establishing the 2011 standards:

"EPA believes 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"

API agrees with the statement above, and reiterates the need for regulatory certainty. Although EPA indicated in the proposal that the Agency believed it could continue to consider exemptions on a case-by-case basis, obligated parties were expecting prompt finalization of the rule, which would have limited the period of uncertainty. EPA should not have reallocated the exempted party's obligation across the rest of the industry, especially when it was too far into the compliance period to be changing the required compliance for the first 8.5 months of the year.

Retroactive Rulemakings

The 2013 RFS Final Rule indicated that EPA would extend the deadline for companies to demonstrate compliance with the 2013 RVO standards. API welcomes the change, but not for the reason EPA identified.

Not only does the text of the 2013 RFS Final Rule as published in the August 15, 2013 *Federal* Register indicate that EPA expects to be late in issuing the final 2014 standard, it, in effect, shows that the Agency expects to be as much as six months late! It increasingly appears that EPA will not meet the November 30, 2013 deadline for finalizing the 2014 RFS standards. The Agency should strive to issue the rules on time. Effectively stating in August 2013 that an annual rulemaking (which should by now be a routine process) could take another 10 months to promulgate is a tacit admission that the agency isn't concerned about issuing timely RFS rules.

EPA's habitual delays in promulgating the annual RFS standards are unacceptable and fundamentally unfair. Obligated parties need this information ahead of the compliance year – as the Clean Air Act clearly requires EPA to do – in order to make operational, logistics, and investment decisions. If EPA is unwilling or unable to meet the statutorily required dates, API may seek judicial assistance in enforcing the deadlines. Furthermore, the uncertainties created by the ethanol blendwall in 2013 and beyond are enormous, and EPA is only adding to the uncertainty with retroactive rules.

Conclusion

The issues outlined above collectively show that EPA is not effectively implementing the RFS, and the Agency's 2013 Final Rule continues the pattern of overly aggressive implementation of an unrealistic mandate. The ethanol blendwall remains our industry's biggest concern with the RFS, and EPA continues to exacerbate the problem. EPA not only fails to use its discretionary authority to mitigate the problem but, as described in this petition, EPA exceeds its authority in ways that only advance the timing and severity of the ethanol blendwall. EPA should expeditiously grant this petition.

We appreciate your attention to these issues, and look forward to your response. If you have any questions regarding this petition, please don't hesitate to contact us.

Sincerely,

Robert L. Greco III

Robert L. Greco, III
Group Director, Downstream & Industry Operations

cc: Chris Grundler

William R. Klesse
Chief Executive Officer
and Chairman of the Board

VALERO

September 9, 2013

The Honorable Gina McCarthy
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20004

Ref: Renewable Fuel Standard (RFS)

Dear Administrator McCarthy,

Valero is very unique in the RFS debate as we own 10 ethanol plants and make 1.1 billion gallons per year of corn based ethanol, making us the third largest U.S. ethanol producer. We are also the largest independent petroleum refiner in the U.S.

There is no conspiracy by the oil industry to not market E-85 or E-15, as some have said. For E-85, the market demand is limited, as corn ethanol and petroleum gasoline prices have not allowed the E-85 retail price to be at a level that reflects the low energy content. Thus, it has not been in the consumer's self interest. For E-15, cars that still have a warranty are not approved to use the fuel with the exception of some 2013 models and for those cars without an active warranty, all the negative press results in the consumer not willing to put the fuel into their vehicle. Plus, there is the motorcycle, boat, lawn motor, and other small engine issues. So, there is not demand which would encourage retail facilities to be built. In a way, it is a chicken and egg issue, and companies are not willing to build facilities with the hope that business will come. Also, for Valero, if we marketed such a fuel today, besides the low demand issue, we would surely be sued for marketing a defective product or someone would misfuel.

Because of the pending blendwall resulting from very different fundamentals than when the 2005 and expanded 2007 laws were passed and regulations developed, the high price of RINs is causing a very unfair wholesale and retail market, picking winners and causing losers, based on existing assets and luck.

The high price of RINs is financially hurting:

- Independent, merchant refiners that provide spot market supplies. Most independent refiners are not integrated with the branded market area where the RIN can be separated.
- Retail marketers that are independent business people that have supply contracts - branded or not. Some do not have direct access to wholesale supply and blending facilities. High RIN prices are hurting the small business person.
- The consumer, as the price of gasoline is higher with gasoline blenders being able to pocket the advantage or to take market share from the smaller, lacking blending capability, retail marketer.

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It was never the intent of the RFS to cause RINs to be a market attracting speculation and picking winners and losers by historical position. RINs were necessary to give the industry flexibility to meet the Renewable Volume Obligation (RVO) and as a way for tracking compliance. Obligated parties should be blenders, not refiners and importers, as they are the party that generates the RIN and thus, since they are marketing a finished fuel, meeting the obligation.

E-10 is widely accepted. Advance ethanol, which requires sugar cane based ethanol, is actually an import mandate. Though significant money has been invested in cellulosic ethanol, including money by Valero, it is still basically nonexistent with only very small volumes expected. Concerning biodiesel and renewable diesel, supply is coming to the market, including Valero's new JV renewable diesel plant in Louisiana.

Because of the mandated volume vs. the actual gasoline demand, E-10 consumption and lack of cellulosic supplies, the program is infeasible. The mandated volume cannot be met by the marketplace. The financial penalty the high RINs is causing is huge for those that are not integrated with controlled retail volumes and huge for consumers. In a way, the program is hurting competition and helping supplies that certainly do not need it.

We support E-10, biodiesel and renewable diesel at the B-2 and B-5 levels depending on blending and seasonality, some incentive for cellulosic, but we do not support an import mandate for advanced or higher ethanol percentages than E-10, except E-85. High RINs prices are not a fair or acceptable way to force higher ethanol volumes.

You have the flexibility to waiver volumes which will lower the price of RINs now, will lower the cost to the consumer and make the marketplace fair. We need the waiver now. Congress, with the Administration, should develop an alternate RFS that encourages the development of the business, but also represents the real world.

Sincerely,

Bill Klesse

United States Government Accountability Office

Report to Congressional Requesters

March 2014

PETROLEUM REFINING

Industry's Outlook Depends on Market Changes and Key Environmental Regulations

GAO-14-249

GAO Highlights

Highlights of GAO-14-249, a report to congressional requesters

March 2014

PETROLEUM REFINING

Industry's Outlook Depends on Market Changes and Key Environmental Regulations

Why GAO Did This Study

The U.S. petroleum refining industry—the largest refining industry in the world—experienced a period of high product prices and industry profits from the early 2000s through about 2007. Since the recession of 2007 to 2009, the industry has been in transition.

Federal and state agencies regulate petroleum refining and the use of petroleum products to protect human health and the environment, as well as for other purposes. EPA, DOT, and California recently proposed or strengthened five key regulations, including EPA and DOT's coordinated fuel economy and GHG vehicle emission standards, and EPA's RFS, which has required that refiners and others ensure transportation fuels include increasing amounts of renewable fuels such as ethanol produced from corn.

GAO was asked to provide information on the domestic petroleum refining industry. This report examines: (1) major changes that have recently affected the industry and (2) the future of the industry. GAO reviewed information including studies by agencies and consultants and company financial filings; interviewed stakeholders, including agency officials and representatives of refiners and environmental organizations; and reviewed forecasts by the Energy Information Administration and others.

What GAO Recommends

GAO recommends that EPA identify the underlying causes of delays in issuing RFS standards and implement a plan to issue RFS standards on time. EPA generally agreed with GAO's findings and recommendations.

View GAO-14-249. For more information, contact Frank Rusco at (202) 512-3841 or ruscof@gao.gov.

What GAO Found

Stakeholders GAO contacted and information reviewed by GAO identified the following three major changes that have recently affected the domestic petroleum refining industry:

- *Increased production.* U.S. and Canadian crude oil production have increased, leading to lower costs of crude oil for some refiners. After generally declining for decades, monthly U.S. crude oil production increased over 55 percent compared with average production in 2008.
- *Declining consumption.* Domestic consumption of petroleum products declined by 11 percent from 2005 through 2012, resulting in a smaller domestic market for refiners.
- *Key regulations.* Two key regulations—the Environmental Protection Agency's (EPA) and Department of Transportation's (DOT) coordinated fuel economy and greenhouse gas (GHG) vehicle emission standards, as well as EPA's Renewable Fuel Standard (RFS)—have contributed to declining petroleum-based fuel consumption. For some refiners, compliance with the RFS increased costs in the first half of 2013, though costs have since declined to some degree from their peak. According to some stakeholders GAO contacted, this was primarily due to RFS requirements exceeding the capability of the transportation fuel infrastructure to distribute and the fleet of vehicles to use renewable fuels. Moreover, EPA has missed the statutory deadline to issue regulations establishing annual RFS blending standards since 2009. EPA has not systematically identified the underlying causes of these delays or changed its approach in order to avoid them. A late RFS contributes to industry uncertainty, which can increase costs because industry cannot plan and budget effectively, according to some stakeholders.

Stakeholders GAO contacted and information reviewed generally suggested that the U.S. refining industry's outlook depends on the following factors:

- *Domestic consumption.* Future consumption of petroleum products is uncertain, with projections ranging from stable to slightly increasing through 2020 but not returning to consumption levels of the past. Forecasts GAO reviewed suggest higher future refinery production in scenarios with higher domestic consumption.
- *Costs of key regulations.* The extent to which requirements in the key regulations increase costs for refiners will affect the industry's outlook. For example, future costs to comply with RFS may depend on the annual renewable fuel volumes EPA sets and whether EPA issues annual RFS standards on time. In general, increasing costs may be absorbed by refiners (i.e., by reducing their profits), be passed on to consumers through higher prices, or both.
- *Foreign markets.* The U.S. refining industry has increasingly relied on foreign markets. Exports grew from 7 percent of production in 2007 to 17 percent in 2012. The extent to which domestic refiners export their products will depend on the competitiveness of U.S. refiners. Factors that may affect competitiveness include domestic environmental regulations, levels of U.S. and Canadian crude oil production, and the balance between global refining capacity and demand for petroleum products.

United States Government Accountability Office

Contents

Letter		1
	Background	4
	Market Changes and Key Environmental Regulations Likely Affected the Refining Industry	20
	Industry Outlook Depends on a Number of Factors	35
	Conclusions	49
	Recommendations for Executive Action	50
	Agency Comments and Our Evaluation	50
Appendix I	Scope and Methodology	53
Appendix II	List of Stakeholders	56
Appendix III	Further Information Regarding the Renewable Fuel Standard, Compliance Credits, and the Blend Wall	58
Appendix IV	Comments from the Environmental Protection Agency	59
Appendix V	GAO Contact and Staff Acknowledgments	64
Related GAO Products		65
Figures		
	Figure 1: Location and Capacity of Petroleum Refineries and Capacity by Region as of January 1, 2013	6
	Figure 2: Petroleum Products Made from a Barrel of Crude Oil in the United States in 2012	8
	Figure 3: Primary Transportation Infrastructure for Crude Oil, Petroleum Products, and Renewable Fuels	10
	Figure 4: U.S. Real Annual Average Retail Regular Gasoline Price & Refining Component of Retail Price, 1976-2012	12

Figure 5: Renewable Fuel Standard Volumes Established by the Energy Independence and Security Act of 2007 14
Figure 6: Corporate Average Fuel Economy (CAFE) Standards, 1978-2025 16
Figure 7: Monthly Crude Oil Production in Texas, North Dakota and the Rest of the United States, January 1981-September 2013 22
Figure 8: Domestic Consumption of Gasoline, Diesel and Other Petroleum Products, 1981-2012 25
Figure 9: Timeline of EPA's Issuance of Proposed and Final RFS Standards (2009-2014) 31
Figure 10: Historical (1995-2012) and Projected (2020) U.S. Consumption of Gasoline, Diesel, and Jet Fuel 37
Figure 11: Historical (1995-2012) and Projected U.S. Exports of Petroleum Products (2015 and 2020) 44
Figure 12: Historical (1995-2013) and Projected (2015 and 2020) U.S. Crude Oil Production 49

Abbreviations

CAFE	Corporate Average Fuel Economy
CARB	California Air Resources Board
CI	carbon intensity
DOE	Department of Energy
DOT	Department of Transportation
EIA	Energy Information Administration
EPA	Environmental Protection Agency
GHG	greenhouse gas
IEA	International Energy Agency
LCFS	Low Carbon Fuel Standard
NHTSA	National Highway Traffic Safety Administration
OMB	Office of Management and Budget
ppm	parts per million
PSD	Prevention of Significant Deterioration
RFS	Renewable Fuel Standard
RIN	renewable identification number

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U.S. GOVERNMENT ACCOUNTABILITY OFFICE
441 G St. N.W.
Washington, DC 20548

March 14, 2014

The Honorable David Vitter
Ranking Member
Committee on Environment and Public Works
United States Senate

The Honorable James Inhofe
United States Senate

The petroleum refining industry in the United States—the largest refining industry in the world—experienced what some observers and industry analysts have called a "golden age" from the early 2000s through about 2007. As we reported in 2007, this period was characterized by increased petroleum product prices, as well as higher price volatility and industry profits.[1] Conditions changed with the recession of 2007 to 2009—the most severe in this country since the 1930s—and the industry has since been in transition. Amid declining refining profits, seven refineries have closed since 2008, and the remaining refineries have not been run as intensively. Conditions have improved more recently, with an Energy Information Administration (EIA) official noting that the industry may be in a second golden age.[2] Petroleum refineries process crude oil into transportation fuels and other products (e.g., gasoline, diesel, and kerosene) that together comprise the largest source of energy in the United States—36 percent of the energy consumed in 2012, according to data from EIA. Domestic petroleum refineries produce the majority of the fuels used in our transportation system, which also uses a small portion of other fuels such as renewable fuels produced from corn, sugar cane, and soybeans.

Federal and state agencies regulate aspects of petroleum refining and the use of refined petroleum products for several purposes, including to protect human health and the environment, and to respond to concerns

[1]See GAO, *Energy Markets: Increasing Globalization of Petroleum Products Markets, Tightening Refining Demand and Supply Balance, and Other Trends Have Implications for U.S. Energy Supply, Prices, and Price Volatility,* GAO-08-14 (Washington, D.C.: Dec. 20, 2007).

[2]EIA is a statistical agency within the Department of Energy (DOE) that collects, analyzes, and disseminates independent information on energy issues.

regarding the nation's dependence on imported crude oil. Petroleum refining and the combustion of gasoline and diesel emit carbon dioxide, a greenhouse gas (GHG) linked to climate change. To address climate change and other concerns, the Environmental Protection Agency (EPA), the primary federal agency responsible for implementing many of the nation's environmental laws, along with the Department of Transportation (DOT) and the state of California recently proposed or strengthened five key environmental regulations as follows:[3]

- *Renewable Fuel Standard (RFS)*. Established in light of concerns such as climate change and the nation's dependence on imported crude oil, the RFS provides that U.S. transportation fuels must contain certain percentages of renewable fuels. Under the law establishing the program, volumes of renewable fuels were to increase over time, though EPA determines requirements annually and may reduce percentages under certain circumstances.[4]

- *Corporate Average Fuel Economy (CAFE) and GHG vehicle emission standards*. A coordinated program in which DOT establishes fleet-wide gas mileage or fuel economy standards and EPA establishes GHG emission standards for vehicle manufacturers.

- *Tier 3 Motor Vehicle Emission and Fuel Standards*. EPA's standards for vehicles and transportation fuels to reduce emissions of certain air pollutants.

- *Stationary source GHG requirements*. EPA's new requirements to address GHG emissions at new refineries and refineries that undertake major modifications.

- *Low Carbon Fuel Standard (LCFS)*. California's recently implemented LCFS requires reductions to the amount of carbon in California's transportation fuels. California is important for the domestic refining industry because it is the nation's largest consumer of petroleum-

[3]We use the term key environmental regulations to refer to these five regulations.

[4]The RFS was created in the Energy Policy Act of 2005, and then expanded through the Energy Independence and Security Act of 2007. See Pub. L. No. 109-58, § 1501 (2005) and Pub. L. No. 110-140, §§ 201-203, 210 (2007), codified as amended at 42 U.S.C. § 7545(o) (2013).

based transportation fuels. It also has the nation's third largest refining capacity, after Texas and Louisiana.

You asked us to provide information about the domestic petroleum refining industry and its market environment. This report examines what is known about: (1) major changes—including key environmental regulations—that have recently affected the domestic petroleum refining industry and (2) major factors that may affect the future of the domestic petroleum refining industry—including its production, profitability, and competitiveness in foreign markets.

To conduct this work, we reviewed information, including studies by federal agencies and consultants, and company financial regulatory filings; and summarized the results of interviews with a nonprobability sample of 32 stakeholders. Stakeholders included representatives from refining companies, environmental organizations, consultants, and officials from federal and state agencies. We also visited several refineries of selected refining companies. We selected these stakeholders to represent broad and differing perspectives on these issues based on recommendations from agencies, industry associations, and others. We took into account such factors as the location and size of companies' refineries. Because we used a nonprobability sample, the views of stakeholders are not generalizable to all potential stakeholders but provide illustrative examples of the range of views. Similarly, the conditions at the refineries we visited are not generalizable to all refineries. The stakeholder views we summarize were not necessarily supported by all types of stakeholders, though we identify differing views where appropriate. The stakeholders we contacted and information we reviewed identified a number of changes that have affected industry and factors that may affect its future, and we report on those that were most often cited. Based on our research and information from stakeholders, we identified five key regulations that were recently strengthened or proposed, though other regulations may also affect the industry. To illustrate major changes affecting industry over time, we summarized historical data from EIA. We took several steps to assess the reliability of EIA data, including reviewing documentation, interviewing EIA staff, and consulting with stakeholders. We determined the EIA data to be sufficiently reliable for the purposes of this report. To provide information about major factors that could affect the industry, we also reviewed

forecasts from EIA, the International Energy Agency (IEA),[5] and IHS,[6] and summarized projections through 2020 under different scenarios. While forecasts are subject to inherent uncertainties, we found these forecasts to be reasonable for describing a range of views about potential conditions of the domestic refining industry and major factors that will help determine these conditions.[7] Appendix I provides additional information on our scope and methodology, and appendix II lists the stakeholders we interviewed.

We conducted this performance audit from November 2012 to March 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

This section describes the petroleum refining industry and the five key regulations that we reviewed.

Petroleum Refining Industry

According to data from EIA, there were 143 petroleum refineries in the United States as of January 2013, with a capacity to process 17.8 million barrels of crude oil per day.[8] While there are refineries in most regions of the country, most refining capacity (almost 90 percent) is located in the

[5]IEA is an international organization composed of 28 of the member nations of the Organisation for Economic Co-operation and Development that, among other things, collects energy data and provides research and analysis on ways to ensure reliable, affordable, and clean energy.

[6]IHS is a firm that provides comprehensive economic and financial information on countries, regions, and industries.

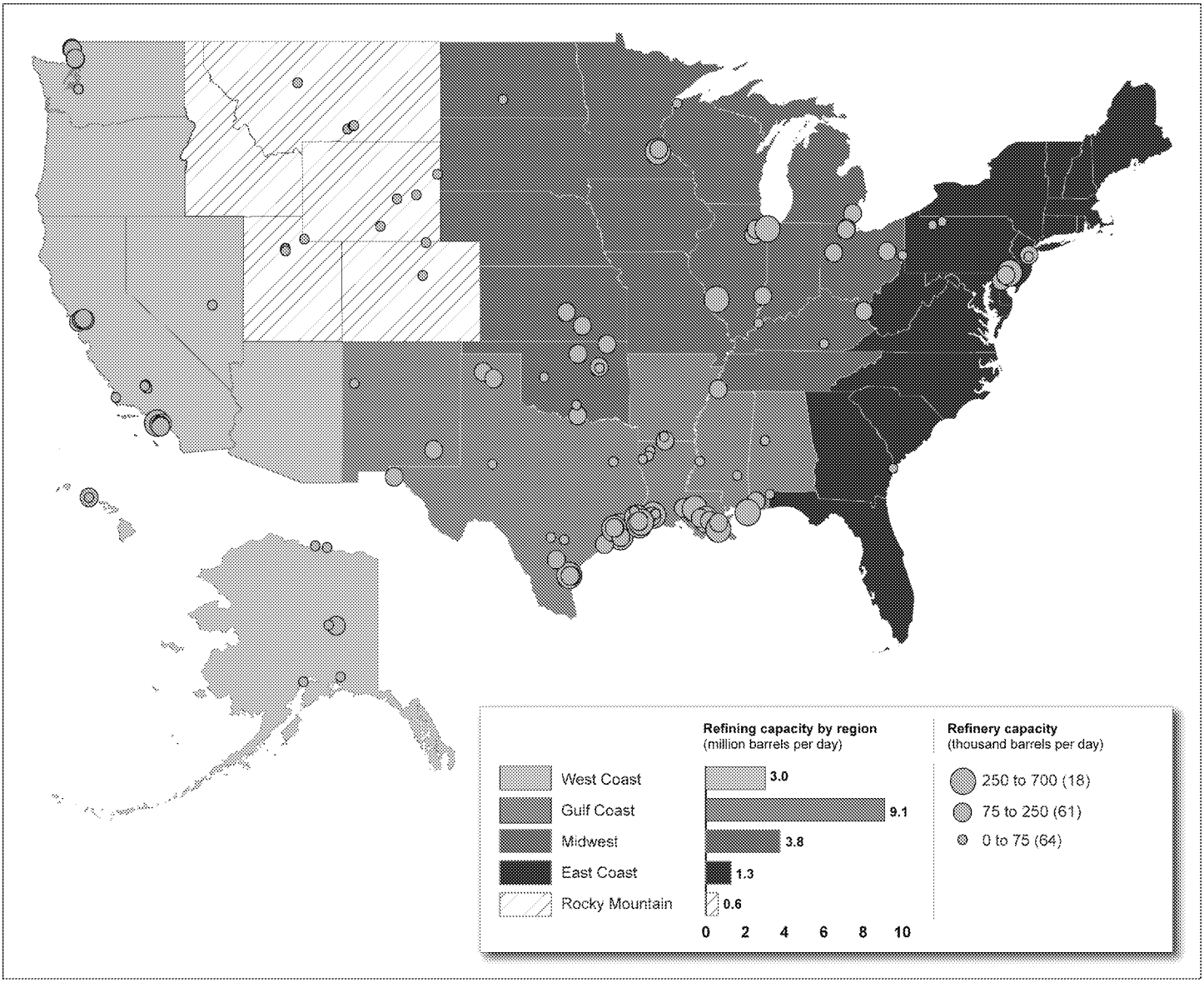
[7]Forecasts reflect assumptions and data available at the time the forecasts are developed. The forecasts we reviewed were developed at different points in time. For example, the 2013 EIA forecast we reviewed was released in April 2013 while IHS's forecast was released in October 2013. More recent forecasts may more fully reflect recent developments such as changes in economic growth and in crude oil production.

[8]A refinery's capacity refers to the maximum amount of crude oil designed to flow into the distillation unit of a refinery, also known as the crude unit.

Gulf Coast, West Coast, and Midwest regions (see fig. 1).[9] These refineries employed over 70,000 people in 2013.

[9]These regions are Petroleum Administration for Defense Districts, which were created during World War II to help organize the allocation of petroleum products. Many petroleum data collection organizations use these regions to organize their data for analytical purposes.

Figure 1: Location and Capacity of Petroleum Refineries and Capacity by Region as of January 1, 2013



Sources: GAO analysis of EIA data; MapInfo (map).

Note: These regions are Petroleum Administration for Defense Districts.

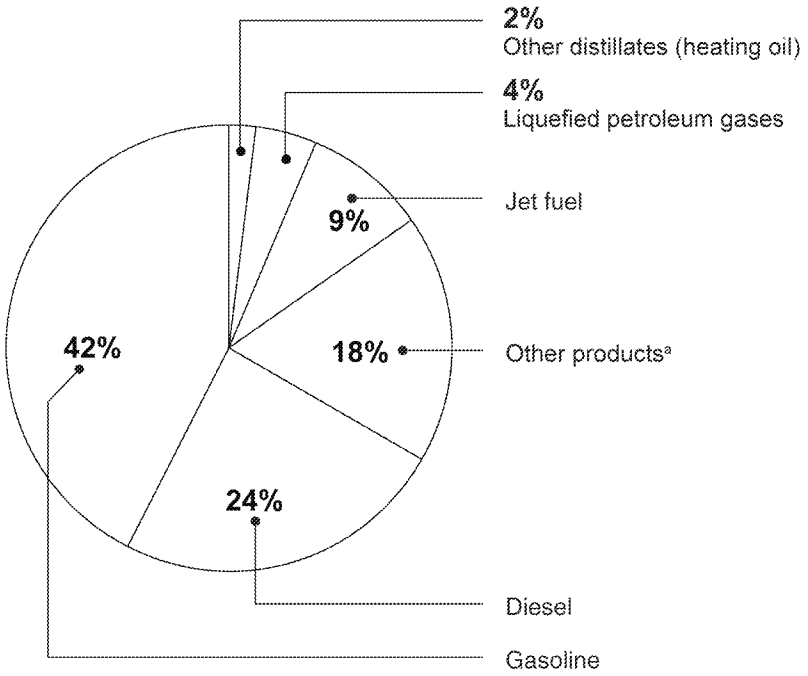
Refineries process crude oil into products primarily through a distillation process that separates crude oil into different fractions based on their boiling points, which can then be further processed into final products. One barrel of crude oil can be processed into varying amounts of

gasoline, diesel, jet fuel, and other petroleum products depending on the configuration—or complexity—of the refinery and the type of crude oil that is being refined. Through the addition of specialized equipment, refineries can be optimized—or "upgraded"—to produce greater proportions of specific types of products or to use different types of crude oil. For example, a coker unit upgrades the low-value residual oil from the distillation process into higher value products such as diesel, increasing a refinery's ability to process heavier crude oils.[10] As shown in Figure 2, from a barrel of crude oil, U.S. refineries primarily produce gasoline, diesel, and jet fuel that are used in the transportation sector, along with heating oil and liquefied petroleum gases such as propane used in home heating.[11]

[10]Coking processes use temperatures greater than 900 degrees Fahrenheit to thermally break molecules that make up feedstocks into products such as diesel, leaving behind petroleum coke—a coal-like material. Petroleum coke is used as a fuel input to produce electricity or as a raw material in the steel and aluminum industry.

[11]Except where noted, we use the term diesel to refer to what EIA calls distillate fuel oil. Distillate fuel oil is a general term that includes primarily diesel fuel, as well as fuel oils used for heating and electric power generation. In 2011, 90 percent of distillate fuel oil was diesel according to EIA data.

Figure 2: Petroleum Products Made from a Barrel of Crude Oil in the United States in 2012



Source: GAO analysis of EIA data.

[a]Other products include heavy fuel oil, petroleum coke, asphalt and road oil, and other miscellaneous products.

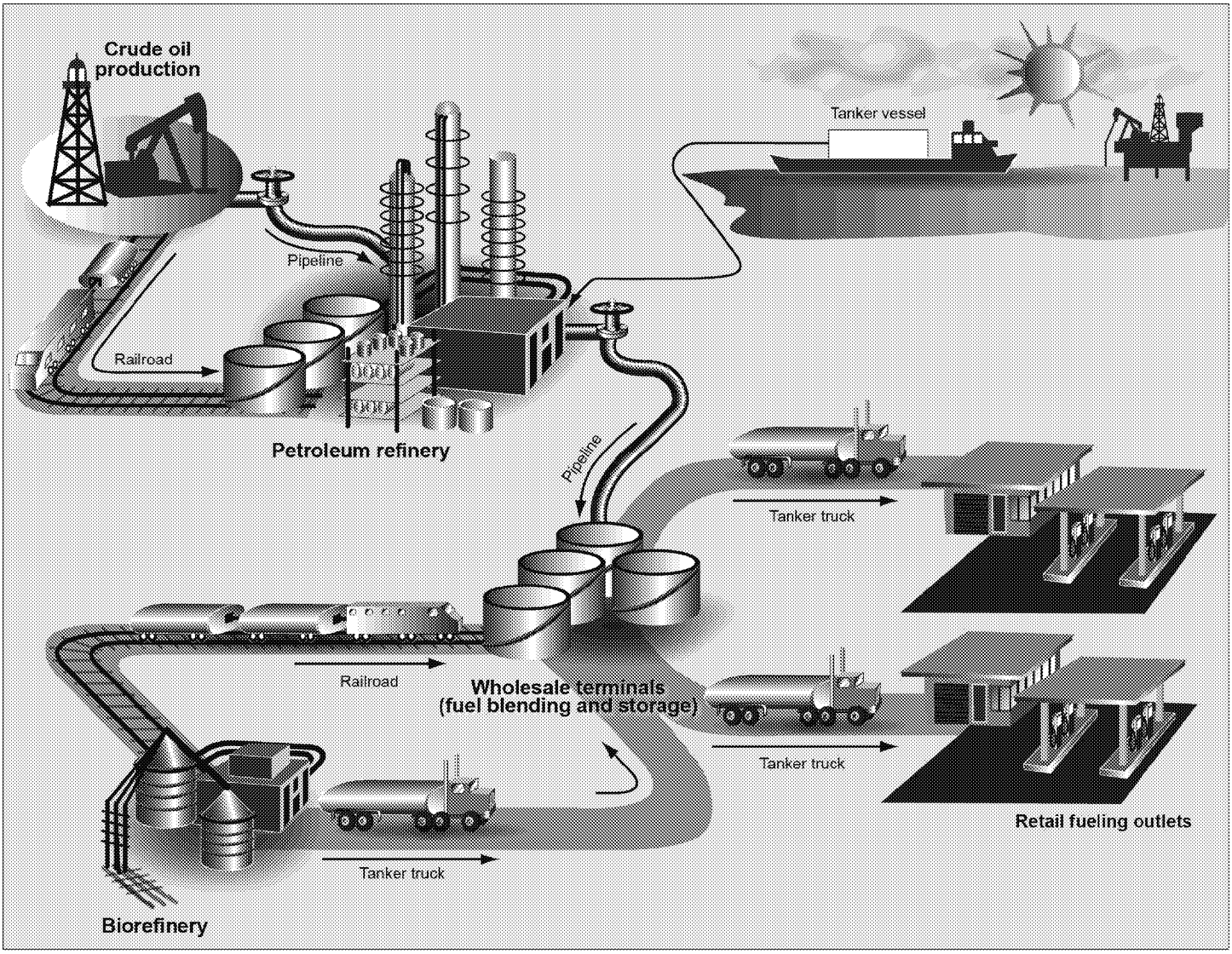
Note: Numbers do not add to 100 due to independent rounding.

The U.S. petroleum refining industry consists of firms of varying sizes that, in addition to operating refineries, may also have operations in other related industry segments: (1) the upstream segment, which consists of the exploration for and production of crude oil; (2) the midstream segment, which consists of pipelines and other infrastructure used to transport crude oil and refined products; (3) the downstream segment, which consists of the refining and marketing of petroleum products such as gasoline and heating oil; and (4) the renewable fuels segment, where biorefineries produce renewable fuels that are blended with petroleum products at wholesale terminals before being distributed to consumers. To varying degrees, refiners may primarily operate refineries—these are called merchant refiners—or may be integrated, participating in various other related industry segments. HollyFrontier Corporation is an example of a merchant refiner that purchases crude oil from unaffiliated producers and sells refined products to other companies operating retail fuel outlets,

while Chevron is an example of a fully integrated company, a refiner that also produces crude oil and operates pipelines and retail fueling outlets across the United States.

Crude oil, petroleum products, and renewable fuels are transported between market participants through an extensive supply infrastructure including pipelines, tanker vessels, rail, trucks, wholesale terminals, and retail outlets. (See fig. 3.) In 2012, refineries received the majority of their crude oil by pipeline (over 50 percent) and by tanker vessel (37 percent), with trucks and rail generally playing a more limited role according to EIA data.

Figure 3: Primary Transportation Infrastructure for Crude Oil, Petroleum Products, and Renewable Fuels



Source: GAO.

Note: Other means of transportation are also used to move petroleum and renewable fuels to wholesale terminals. For example, for ethanol, barges are also used to a limited extent.

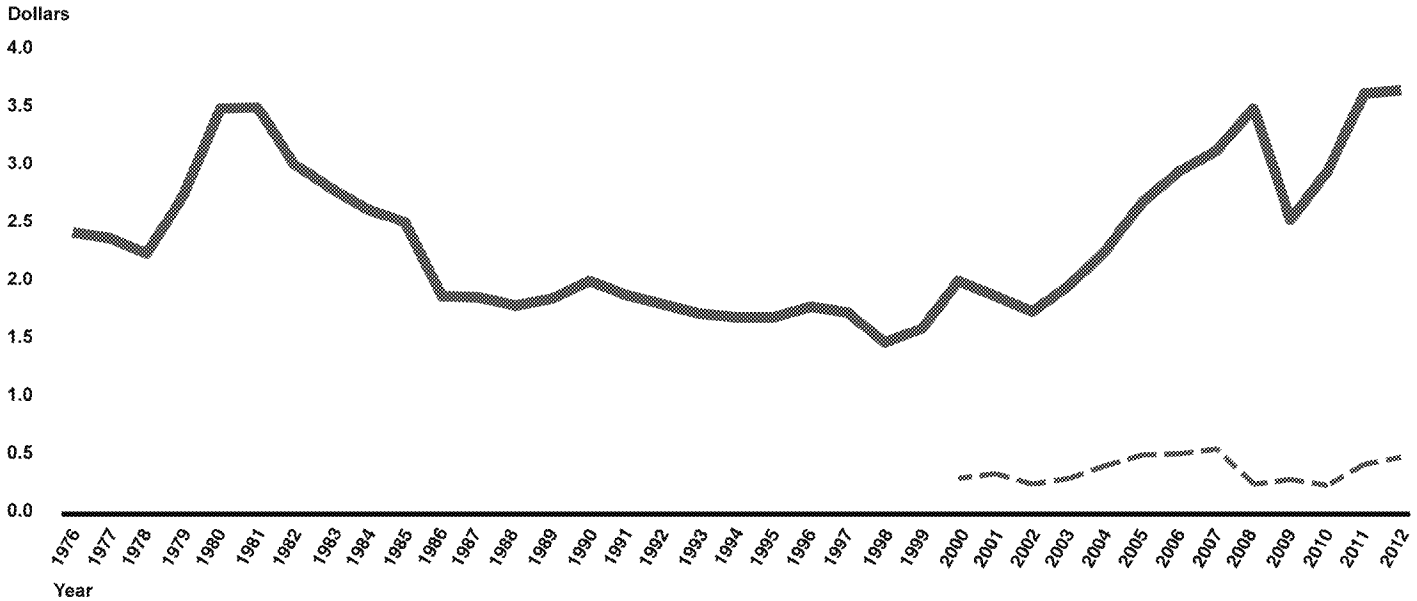
As we reported in 2007, according to industry officials and experts, the refining industry was a low-return industry for much of the prior two decades.[12] Retail prices for regular gasoline averaged $3.63 per gallon in 2012, the highest annual average price when adjusted for inflation since 1976, the earliest comparable data available from EIA.[13] Retail prices have declined in 2013—gasoline averaged $3.55 in the first half of 2013 and $3.18 in November 2013—but are still near historic highs. Market dynamics anywhere along the supply chain can influence consumer prices, beginning with upstream crude oil production, the production of renewable fuels, through downstream refining and retailing.[14] According to EIA data, increases in crude oil costs have been the largest component of the recent increases in gasoline prices. The refining component of prices—including labor, materials, energy, and other costs of the refining process, as well as profits to refinery owners—has fluctuated over time but has not increased in a significant way since 2000, when EIA began reporting estimates of the components of retail prices (see fig.4).

[12]GAO-08-14.

[13]Prices in this section were converted to 2012 dollars using the Bureau of Labor Statistics' Consumer Price Index.

[14]We have previously reported on several factors affecting these dynamics. See, for example: GAO, *Energy Markets: Estimates of the Effects of Mergers and Market Concentration on Wholesale Gasoline Prices,* GAO-09-659 (Washington, D.C.: June 12, 2009); GAO-08-14; and GAO, *Motor Fuels: Understanding the Factors That Influence the Retail Price of Gasoline,* GAO-05-525SP (Washington, D.C.: May 2, 2005). A more complete list of related reports is included at the end of this report.

Figure 4: U.S. Real Annual Average Retail Regular Gasoline Price and Refining Component of Retail Price, 1976-2012



Source: GAO analysis of EIA data.

Note: EIA began reporting estimates of the components of retail prices in 2000. Prices were converted to 2012 dollars using the Bureau of Labor Statistics' Consumer Price Index.

Key Regulations Affecting the Domestic Refining Industry

The five key environmental regulations affecting the domestic refining industry that we reviewed are concerned with various health, environmental, and other issues.

RFS

Under the RFS, since 2006, transportation fuels sold in the United States have been required to contain increasing amounts of renewable fuels such as ethanol and biodiesel. EPA is responsible for administering the RFS and annually issues regulations that establish the percentage of gasoline and diesel fuels that refiners, importers, and other obligated parties must ensure are renewable fuels. Congress established the RFS in light of concerns such as climate change and the nation's dependence on imported crude oil. As shown in figure 5, the law generally required that transportation fuels contain 9 billion gallons of renewable fuels in 2008, and that volumes increase 4-fold through 2022 to 36 billion gallons. The Administrator of EPA is authorized to waive the RFS levels established in the act if the Administrator determines—in consultation with the Secretaries of Agriculture and Energy—that implementing the requirement would severely harm the economy or environment, that there

is an inadequate domestic supply, or in certain other situations.[15] The major source of renewable fuels has traditionally been ethanol produced from corn; however, as we reported in 2009, the increased cultivation of corn for ethanol, its conversion into renewable fuels, and the storage and use of these fuels could affect water supplies, water quality, air quality, soil quality, and biodiversity.[16] Under the RFS' statutory provisions, the increasing amounts of renewable fuels are to primarily come from renewable fuels other than corn ethanol—called advanced biofuels—that meet certain criteria, including reducing GHG emissions by at least 50 percent compared with the gasoline or diesel fuel they displace.[17] According to EPA, achieving the RFS' statutory blending levels in 2022 could result in total benefits—including those related to overall fuel costs, energy security, health, and GHG effects—of between $13 and $26 billion and could reduce GHG emissions by 138 million metric tons of carbon dioxide equivalent emissions, equal to taking about 27 million vehicles off the road.[18]

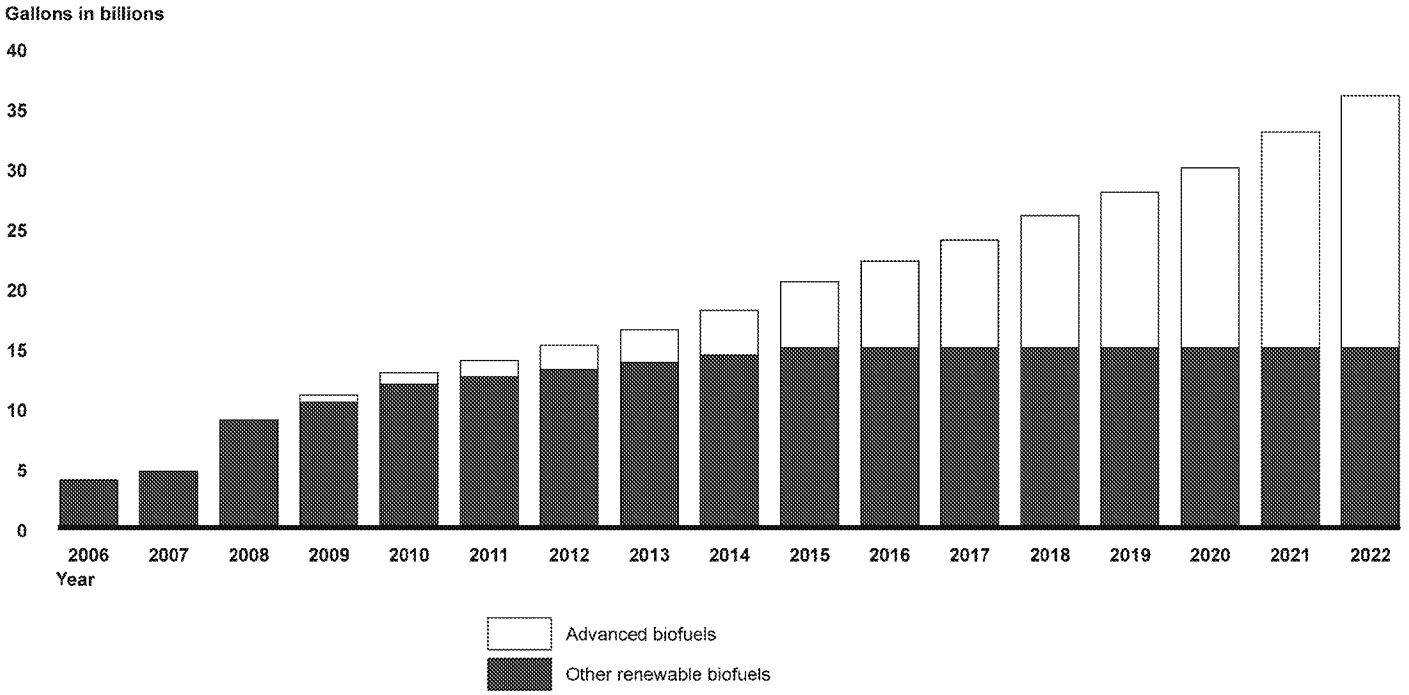
[15]EPA may also reduce the requirements for total renewable fuel and advanced biofuel in years when EPA reduces cellulosic biofuel or biomass-based diesel under applicable provisions. See 42 U.S.C. § 7545(o)(7)(D)-(E) (2013). EPA also must provide public notice and an opportunity for comment before making a determination for a waiver.

[16]See GAO, *Biofuels: Potential Effects and Challenges of Required Increases in Production and Use,* GAO-09-446 (Washington, D.C.: Aug. 25, 2009) and GAO, *Energy-Water Nexus: Many Uncertainties Remain about National and Regional Effects of Increased Biofuel Production on Water Resources,* GAO-10-116 (Washington, D.C.: Nov. 30, 2009).

[17]Beginning in 2015, the RFS' statutory provisions call for more than half of advanced biofuels to be produced from cellulosic materials, which can include perennial grasses, crop residue, and the branches and leaves of trees. Such cellulosic biofuels must generally achieve at least a 60 percent reduction in life cycle greenhouse gas emissions compared with the gasoline or diesel fuel they displace. However, according to EIA, all EIA forecasts and projections made since the passage of the Energy Independence and Security Act of 2007 anticipated large shortfalls between the RFS targets and the volumes of cellulosic biofuels. In addition, some advanced biofuels must be produced from biomass-based diesel, which generally includes diesel made from biomass feedstocks such as soybeans.

[18]EPA's estimates of the benefits and costs of the regulations presented throughout this report refer to monetized amounts. As not all benefits and costs can be monetized, these may represent a subset of overall benefits and costs of the regulations. We did not independently assess EPA's estimates of the benefits or costs of these regulations. We are examining EPA's economic analyses in relation to its adherence to guidance for regulatory analysis and expect to report later this year on these issues.

Figure 5: Renewable Fuel Standard Volumes Established by the Energy Independence and Security Act of 2007



Sources: Energy Independence and Security Act of 2007, Pub. L. No. 110-140 §202(a)(2) (2007).

CAFE and GHG Vehicle Emission Standards

The federal government has regulated vehicle fuel economy through CAFE standards since 1978 and, more recently, aligned these standards with new GHG vehicle emission standards in a joint national program aimed at reducing oil consumption and GHG emissions from the transportation sector.[19] CAFE standards are administered by the National Highway Traffic Safety Administration (NHTSA) and require that vehicle manufacturers meet fleet-wide average fuel economy standards for vehicles.[20] The Energy Independence and Security Act of 2007 instituted several changes to the CAFE standards and, in 2009, the administration announced a new program to increase vehicle fuel economy and reduce

[19]The Energy Policy and Conservation Act, Pub. L. No. 94-163 tit. III (1975) established CAFE standards effective beginning in model year 1978.

[20]The NHTSA, under DOT, is responsible for setting and enforcing CAFE standards, among other things.

vehicle GHG emissions, which was implemented by a joint rulemaking with NHTSA raising CAFE standards and EPA establishing the first GHG emissions standards for vehicles.[21] Although the CAFE and GHG vehicle emission standards are distinct, their targets were aligned for compliance purposes. NHTSA and EPA put the national program into place by issuing coordinated regulations covering vehicle model years 2012 to 2025.[22] As shown in figure 6, fuel economy standards for cars largely remained unchanged from 1990 through 2010, but vehicle manufacturers are now expected to meet increasingly stringent standards reaching the projected combined average fuel economy of about 50 miles per gallon by 2025—about 80 percent more efficient than required under the 2011 standards.[23] EPA estimated that the 2011-2025 standards may save consumers and businesses $1.7 trillion, reduce oil consumption by 12 billion barrels, and reduce GHG emissions by 6 billion metric tons over the lifetime of the vehicles sold during model years 2011-2025.[24]

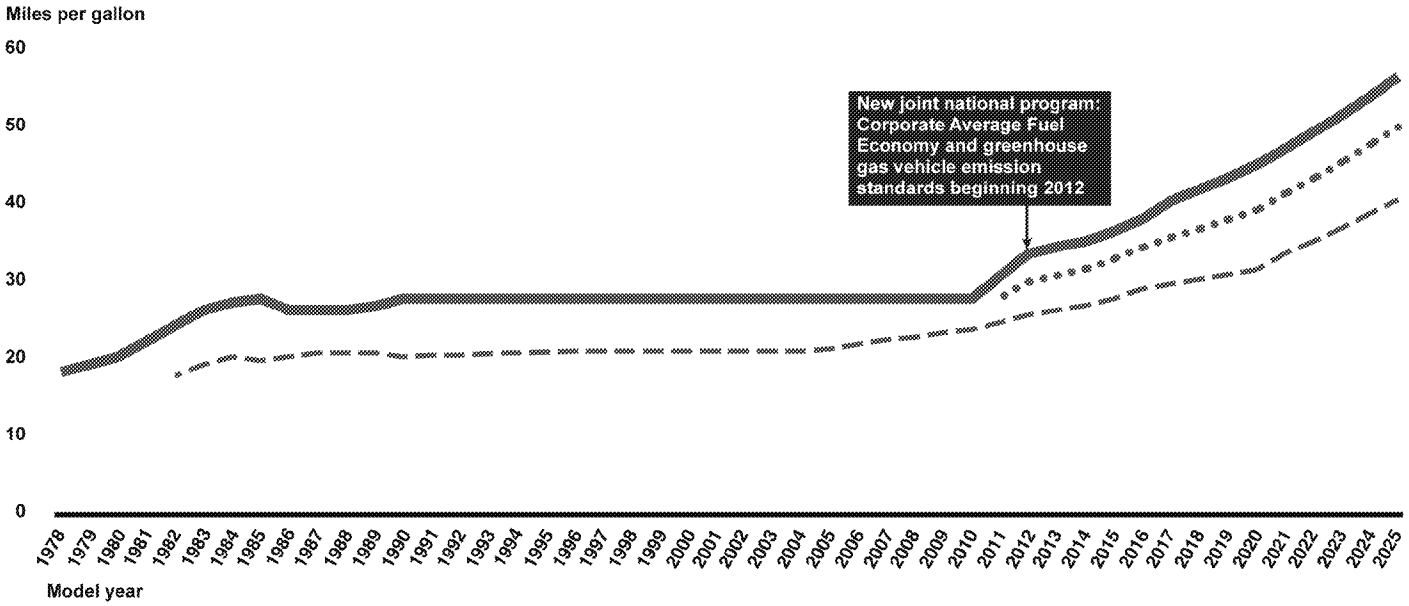
[21]The Energy Independence and Security Act of 2007, Pub. L. No. 110-140, tit. 1, subtit. A. Among other things, the act extended and codified NHTSA's reform of the CAFE standards by moving from a single fleet standard to an attribute-based standard for light trucks and passenger vehicles. The move from a single standard for a fleet to attribute-based standards for each vehicle model based on a vehicle's footprint was designed to address a number of downsides associated with moving to smaller vehicles, including potential safety implications and consumer choice limitations, see GAO, *Vehicle Fuel Economy: NHTSA and EPA's Partnership for Setting Fuel Economy and Greenhouse Gas Emissions Standards Improved Analysis and Should Be Maintained,* GAO-10-336 (Washington, D.C.: Feb. 25, 2010).

[22]In the coordinated rulemaking, NHTSA issued regulations establishing CAFE standards for model years 2012 to 2021 and identified nonbinding, projected standards for model years 2022-2025 due to a statutory requirement that allows the agency to set CAFE standards for not more than 5 model years in a given rulemaking. See 77 Fed. Reg. 62,624, 62,639 (Oct. 15, 2012). For further information on these rulemakings and the process used to set them, see GAO-10-336.

[23]The national program of CAFE and GHG vehicle emission standards is projected to result in an industry-wide fuel economy of 54.5 miles per gallon in 2025 if all GHG reductions are achieved with fuel economy technologies, but use of air conditioning refrigerant credits would lower the expected fuel economy to about 50 miles per gallon. Actual fuel economy will differ, depending on the fleet of vehicles sold and how manufacturers choose to meet the standards given certain flexibilities, including credits for improved air conditioning efficiency.

[24]In model year 2011, CAFE standards alone were in effect; from 2012-2025, both CAFE and GHG vehicle emission standards are in effect.

Figure 6: Corporate Average Fuel Economy (CAFE) Standards, 1978-2025



Sources: GAO analysis of EPA and National Highway Traffic Safety Administration data.

Note: Data from 2011 on are projected fuel economy based on final standards, and data for 2022-2025 are based on projected standards. Projected fuel economy for 2017-2025 used model year 2008 as the baseline. Actual fuel economy may differ, depending on the fleet of vehicles sold and how manufacturers choose to meet the standards given flexibilities in the standards, including credits for improved air conditioning efficiency. The figure indicates CAFE standards, which are generally aligned with EPA's greenhouse gas vehicle emission standards.

Tier 3 Motor Vehicle Emission and Fuel Standards

Under the Clean Air Act, EPA is authorized to establish certain standards for new motor vehicles and fuels to address air pollution that may reasonably be anticipated to endanger public health or welfare.[25] On May 21, 2013, EPA proposed the Tier 3 standards, and on March 3, 2014, EPA announced the final Tier 3 standards which establish more stringent

[25]Clean Air Act Amendments of 1970 §§ 202, 211(c)(1), Pub. L. No. 91-604, 84 Stat. 1676 (1970), codified as amended at 42 U.S.C. §§ 7521, 7545(c)(1) (2013) (commonly referred to as the Clean Air Act).

vehicle emission standards and reduce the sulfur content of gasoline.[26] (Because EPA finalized this rulemaking after the draft report was completed and provided to agencies, the views of stakeholders and other information on Tier 3 that we reviewed and summarize in the rest of this report relate primarily to the proposed standards. EPA stated that the final rulemaking is very similar to the proposal, and that EPA made some changes—including to the sulfur provisions—based on public input.) According to EPA, more than 149 million Americans experience unhealthy levels of air pollution that has been linked to respiratory and cardiovascular problems and other adverse health effects. Cars and light trucks are significant contributors to air pollution, and EPA estimated that the Tier 3 standards will reduce pollution from such sources. The standards set more stringent tailpipe emission standards for new vehicles and generally require refiners to lower the sulfur content of gasoline from 30 parts per million (ppm) to 10 ppm on an annual average basis by 2017, among other things.[27] According to EPA, reducing the sulfur content of gasoline allows emissions control systems to work more effectively for existing and new vehicles and would therefore enable more stringent vehicle emissions standards. EPA estimated that the Tier 3 standards would reduce on-highway vehicle emissions of nitrogen oxides, a pollutant that has been liked to respiratory illnesses, by 10 percent in 2018, and 25 percent in 2030.[28] According to EPA estimates, by 2030, annual emission reductions from the Tier 3 standards would generate annual benefits of between $6.7 and $19 billion and prevent up to 2,000 premature deaths annually. EPA estimated that the vehicle and fuel standards would cost approximately $1.5 billion in 2030, including costs for refiners to install and operate equipment to remove sulfur from

[26]For the proposed standards, see: 78 Fed. Reg. 29,816 (May 21, 2013). The final standards were signed by the Administrator of the EPA on March 3, 2014. (See: EPA, *Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards, Final rule*, accessed March 5, 2014, http://www.epa.gov/otaq/documents/tier3/tier-3-fr-preamble-regs-3-3-14.pdf.) The Tier 3 standards replace the current vehicle emission and fuel sulfur standards that were established in 2000 under Tier 2. See 65 Fed. Reg. 6698 (Feb. 10, 2000). Tier 2 standards generally reduced sulfur in gasoline from 300 ppm to 30 ppm on an annual average basis and were phased in from 2004 through 2007.

[27]EPA also will provide a 3-year delay for certain small refiners, as well as certain small volume refineries that processed 75,000 or fewer barrels of crude oil per day averaged over 2011.

[28]EPA, *Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards Final Rule; Regulatory Impact Analysis.* (EPA-420-R-14-005, March 2014).

gasoline, as well as costs for vehicle manufacturers to improve the emissions performance of vehicles.

Stationary Source GHG Requirements

Under the Clean Air Act, EPA is authorized to take certain steps to address emissions from stationary sources, including refineries. EPA has regulated certain emissions of air pollutants from stationary sources for several decades, and EPA recently issued rules concerning how GHGs are to be included in certain existing permitting processes.[29] Specifically, permitting authorities[30] are to include GHG emission control requirements in Prevention of Significant Deterioration (PSD) permits and certain other permits issued to refineries and other stationary sources that trigger GHG emissions thresholds.[31] Since 2011, construction of any new refineries and certain refineries that are modified have generally been subject to the use of the "best available control technology" for GHG emissions. The best available control technology is determined for each facility based on an analysis of available technologies considering cost and other factors. According to EPA, in most cases, the best available control technology selected for GHGs are energy efficiency improvements. For example, for refineries, this could involve the installation of heat recovery units, which capture and use otherwise wasted heat in the refinery process. Such energy efficiency improvements can lower GHG emissions and other pollutants while reducing fuel consumption and saving money. Current regulations do not require existing facilities to take any steps to control GHG emissions unless they undertake a major modification. Examples of major modifications at a refinery include a significant expansion of crude

[29]Several industry groups have challenged EPA's determination that its regulation of GHG emissions from new motor vehicles triggered permitting requirements under the Clean Air Act for stationary sources that emit GHGs. The U.S. Court of Appeals for the D.C. Circuit upheld EPA's determination, and the Supreme Court granted a petition to review the D.C. Circuit's judgment and will consider the issue in 2014.

[30]Permitting authorities include EPA regions and approved state and local agencies. Some states are not approved to issue GHG permits. In these states, EPA regions issue GHG permits.

[31]Permits that address GHG emissions from new or modified stationary sources are known as PSD permits. PSD permits address GHG emissions only for those sources and projects meeting specific emission thresholds. In addition, operating permits, also known as Title V permits, can be triggered by sources that emit GHGs at specified emissions thresholds. Operating permits generally do not add new pollution control requirements but contain procedural requirements such as compliance monitoring and reporting. Thus, only PSD permits will impose GHG emission control requirements.

oil processing units, or installing new secondary processing units that would increase GHG emissions above specified thresholds.

LCFS

California's LCFS aims to lower GHG emissions by reducing the level of carbon in transportation fuels. Established by the California Air Resources Board (CARB) following state legislation and an executive order, the LCFS has been fully in effect since January 2011. The LCFS would change the mix of fuels and vehicles in California to reduce emissions throughout the fuel "life cycle"—which includes emissions associated with producing, transporting, distributing, and using the fuel. To reduce emissions, carbon intensity (CI) scores are used, which are to reflect each fuel's life cycle GHG emissions. Refiners generally are required to ensure that the overall CI score for their fuels—which can include gasoline, diesel, and their blendstocks and substitutes—meets the annual carbon intensity target for a given year. Unlike the RFS, which requires certain types of renewable fuels be used, under LCFS refiners can meet the CI reduction targets using a variety of low carbon fuel technologies. Low carbon fuel technologies include renewable fuels from waste and cellulosic materials, natural gas, electricity used in plug-in vehicles, and hydrogen used in fuel cell vehicles. The original LCFS statewide reduction targets for gasoline, diesel, and their substitutes started at 0.25 percent of 2010 values in 2011 and increased to 10 percent by 2020. However, in 2013 a state Court of Appeal found that CARB must correct certain aspects of the procedures by which the LCFS was originally adopted.[32] CARB officials subsequently announced a regulatory package would be proposed in 2014, and that the 2013 standards—a 1 percent decrease in carbon intensity from 2010 values—will remain in effect through 2014.

To comply with LCFS, refiners can produce their own low carbon fuels, buy such fuels from other producers to blend into their products and sell on the market, or purchase credits generated by others. Refiners can also generate credits—which can be banked and traded—if their use of low carbon fuels results in greater-than-required carbon intensity reductions. CARB estimated that the 2020 targets would reduce GHG emissions

[32]Specifically, the California Fifth District Court of Appeal allowed the LCFS regulations to remain in effect, but found that the manner in which the CARB adopted the LCFS violated certain procedural requirements of the California Environmental Quality Act and California's Administrative Procedures Act. As a result, CARB anticipates addressing the court's concerns with a regulatory package in 2014.

associated with the transportation sector in California by 10 percent in 2020, or 23 million metric tons of carbon dioxide equivalent.[33]

Market Changes and Key Environmental Regulations Likely Affected the Refining Industry

Stakeholders we interviewed identified three major changes that have likely recently affected the domestic petroleum refining industry.[34] First, crude oil production in the United States and Canada has increased, which has lowered the cost of purchasing crude oil for some refiners but poses some challenges related to crude oil transportation infrastructure constraints and the types of crude oils produced. Second, after many years of generally increasing domestic consumption of petroleum products, consumption has fallen since 2005, resulting in a smaller domestic market for refiners. Third, two key environmental regulations—CAFE and GHG vehicle emission standards and the RFS—have likely recently contributed to declining consumption of petroleum fuels, and compliance with the RFS has increased costs for some refiners.

Increased Crude Oil Production Has Lowered Crude Oil Costs for Some Refiners

U.S. and Canadian crude oil production has increased in recent years, leading to lower crude oil costs for some refiners, according to several stakeholders we contacted. According to EIA data, U.S. production of crude oil reached its highest level in 1970 and generally declined through 2008, reaching a level of almost one-half of its peak. During this time, the United States increasingly relied on imported crude oil to meet growing domestic energy needs. However, recent improvements in technologies have allowed companies that develop petroleum resources to extract oil from shale formations that were previously considered to be inaccessible because traditional techniques did not yield sufficient amounts for economically viable production. In particular, the application of horizontal drilling techniques and hydraulic fracturing—a process that injects a combination of water, sand, and chemical additives under high pressure to create and maintain fractures in underground rock formations that allow oil and natural gas to flow—have increased U.S. crude oil and natural gas

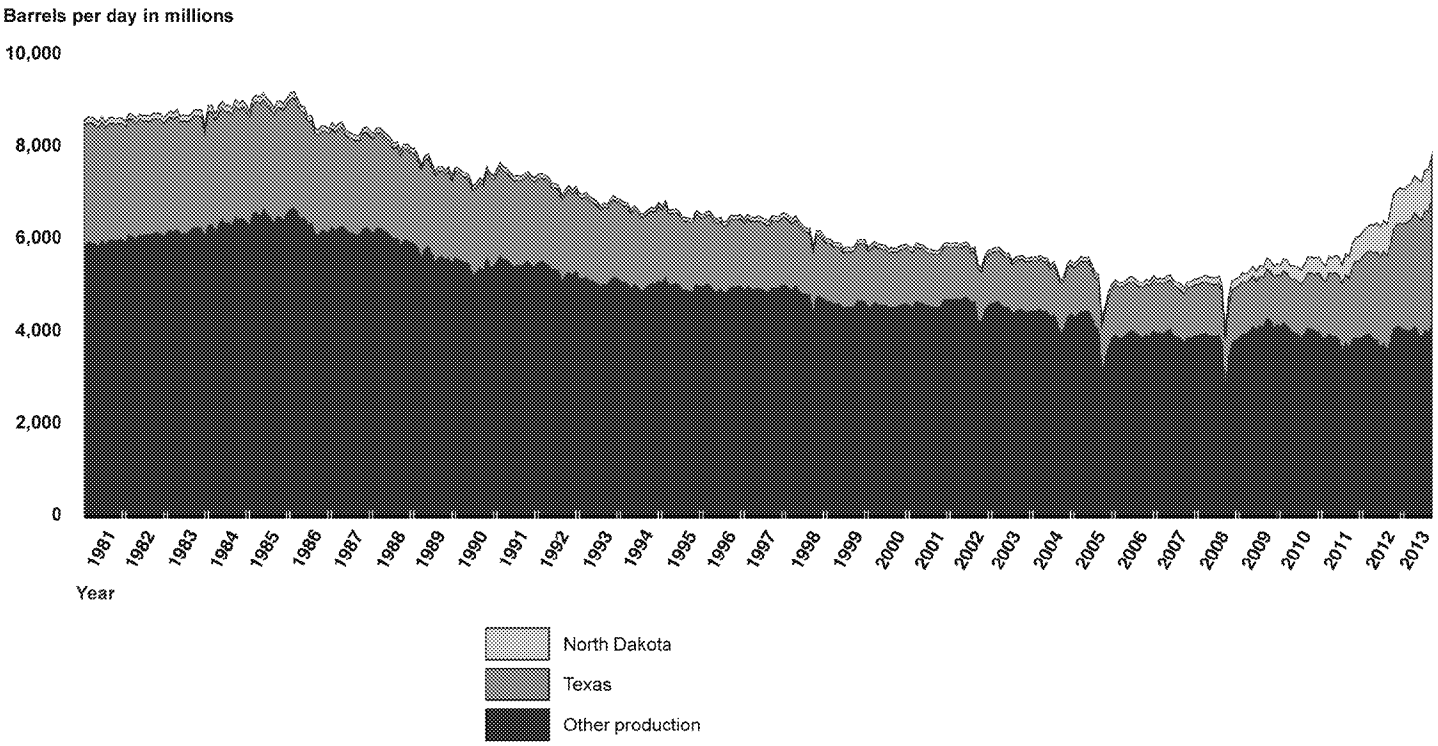
[33]CARB, *Staff Report: Initial Statement of Reasons Proposed Regulation to Implement the Low Carbon Fuel Standard, Volume I* (Sacramento, CA: Mar. 5, 2009).

[34]The stakeholder views summarized throughout this report were not necessarily supported by all types of stakeholders, though we identify differing views where appropriate.

production.[35] As shown in figure 7, monthly domestic crude oil production has increased by over 55 percent through September 2013 compared with average production in 2008. According to EIA, increases in production in 2012 and 2013 were the largest annual increases since the beginning of U.S. commercial crude oil production in 1859. Much of the increase in crude oil production has been from shale and other formations, such as the Bakken in North Dakota and the Eagle Ford in Texas, according to EIA data. Similarly, crude oil production in Canada—the largest foreign supplier of crude oil to the United States—has also increased significantly in recent years. From 2005 through 2012, total Canadian crude oil production increased by 32 percent and U.S. imports from Canada increased almost 50 percent.

[35]For more information, see: GAO, *Oil and Gas: Information on Shale Resources, Development, and Environmental and Public Health Risks,* GAO-12-732 (Washington, D.C.: Sept. 5, 2012).

Figure 7: Monthly Crude Oil Production in Texas, North Dakota and the Rest of the United States, January 1981-September 2013



Source: GAO analysis of Energy Information Administration data.

The rapid growth in U.S. and Canadian crude oil production has lowered the cost of crude oil for some domestic refiners that have the access and ability to process these crude oils. For example, West Texas Intermediate crude oil—a domestic crude oil used as a benchmark for pricing—was $17.60 per barrel less expensive in 2012 than Brent, an international benchmark crude oil from the European North Sea that was historically about the same price as West Texas Intermediate. Those refineries able to take advantage of these lower priced crude oils have benefited because crude oil costs are the largest cost for refiners.[36] However, all

[36]Closely related to increases in crude oil production, natural gas production has also increased in the United States in recent years. This increasing availability and lower prices for natural gas have been a benefit to domestic petroleum refiners since natural gas is an important energy source for many petroleum refineries, according to several stakeholders we contacted.

refineries may not have been able to take advantage of these crude oils to the same extent for two key reasons:

- *Transportation infrastructure challenges*. The development of domestic and Canadian crude oil production has created some challenges for U.S. crude oil transportation infrastructure because some of the growth in production has been in areas with limited transportation linkages to refining centers. Most of the system of crude oil pipelines in the United States was constructed in the 1950s, 1960s, and 1970s to accommodate the needs of the refining sector and demand centers at that time. According to DOE officials, this infrastructure was designed primarily to move crude oil from the South to the North, but emerging crude oil production centers in Western Canada, Texas, and North Dakota have strained the existing pipeline infrastructure. Though pipeline capacity has increased—investments increased pipeline capacity to deliver crude oil to a key Cushing, Oklahoma hub by about 815,000 barrels per day from 2010 through 2013—EIA reported that it has been inadequate. Because of these challenges, some refineries may not have been able to take full advantage of crude oil production increases or had to rely on other more expensive crude oil transportation options such as truck, rail, or barge. For example, two of the refineries we visited recently installed facilities to enable them to receive crude oil from North Dakota or Canada by rail. According to EIA data, while refinery receipts of crude oil by these methods of transportation is a small percentage of total receipts, they have increased 57 percent from 2011 to 2012. Infrastructure constraints have, according to EIA, contributed to discounted prices for some domestic crude oils.

- *Configuration constraints at refineries*. Increasingly, the crude oil being produced in the United States and Canada has different characteristics from the crude oils that some domestic refineries are configured to use. Production of new domestic crude oil has tended to be light and sweet, whereas a portion of new Canadian production has been heavy and sour crude oils.[37] To a certain extent, some

[37]Crude oil is generally classified according to two parameters: density and sulfur content. Less dense crude oils are known as "light," while denser crude oils are known as "heavy." Crude oils with relatively low sulfur content are known as "sweet," while crude oils with higher sulfur content are known as "sour." In general, heavier and more sour crude oils require more complex and expensive refineries to process the crude oil into usable products.

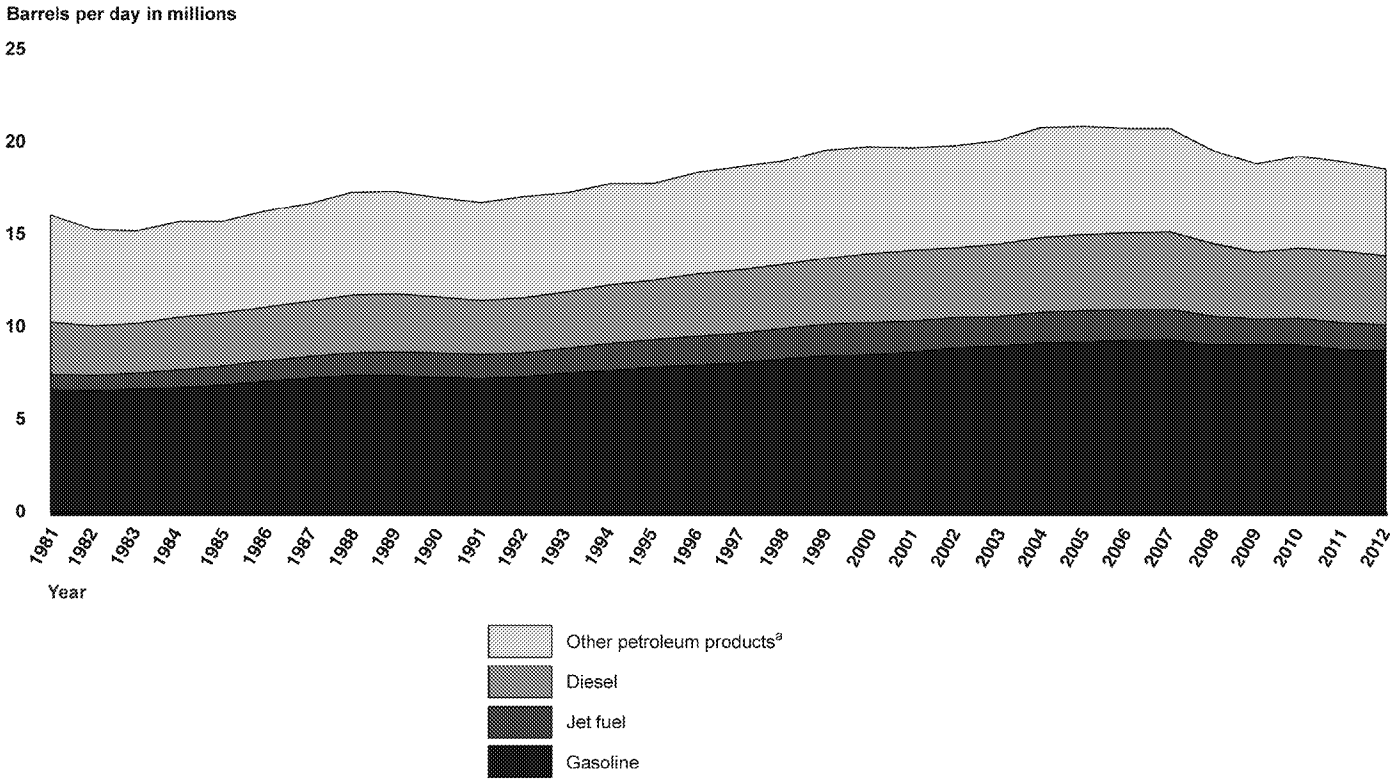
refineries can use these crude oils, but some have invested in new equipment in order to do so. For example, representatives of one refiner told us they had invested over $2.2 billion in a project including a new coking unit at a refinery to refine heavier and more sour crude oil from Canada.

Domestic Consumption of Petroleum Products Has Declined

After decades of generally increasing domestic consumption of petroleum products, consumption has declined since 2005, resulting in a smaller domestic market for refiners, according to several stakeholders we contacted. Overall, consumption of gasoline, diesel, and other petroleum products in the United States increased from 1983 through 2005. In 2007, EIA projected that U.S. consumption would increase by nearly 30 percent between 2005 and 2030. As we reported in late 2007, trends in domestic refining capacity had not kept pace with consumption growth, though it was unclear whether and for how long that market tightness would continue.[38] However, as shown in figure 8, domestic consumption of petroleum products overall peaked in 2005 at 20.8 million barrels per day, and it declined by 11 percent through 2012. Consumption of gasoline, diesel, and jet fuel peaked in 2007 and declined by over 8 percent through 2012. More recent data indicate that these trends may now be starting to shift, as EIA estimated that petroleum product consumption increased in the first 11 months of 2013 compared with the first 11 months of 2012.

[38]See GAO-08-14.

Figure 8: Domestic Consumption of Gasoline, Diesel, and Other Petroleum Products, 1981-2012



Source: GAO analysis of Energy Information Administration data.

Note: Data presented here include final consumption of fuels including petroleum-based fuels that have been blended with renewable fuels.

[a]Other petroleum products include kerosene, natural gas liquids, and other petroleum products.

According to several stakeholders we contacted and information we reviewed, a number of factors can affect consumption of petroleum products, including economic activity and crude oil and petroleum prices. For example, the recession of 2007 to 2009 reduced economic activity and demand for gasoline, and historically high gasoline prices have discouraged the use of gasoline. Stakeholders and information we reviewed also cited the effect of more stringent fuel economy standards and the RFS, which are discussed in the next section.

Several stakeholders told us that this broad shift from growing to falling consumption of petroleum products has affected the domestic refining industry because it has resulted in a smaller domestic market. The U.S. market is important for domestic refineries because U.S. refiners have

historically primarily sold their products domestically. On average, the United States exported almost 1 million barrels per day of domestic petroleum products from 2000 through 2005—less than 6 percent of U.S. refinery production. As discussed below, the refining industry has shifted sales to export markets amid a declining domestic market.

Two Key Regulations Have Likely Contributed to Declining Fuel Consumption and Compliance with One Has Increased Some Refiners' Costs

According to stakeholders and the information we reviewed, two recently strengthened key environmental regulations—the coordinated CAFE and GHG vehicle emission standards, and the RFS—have likely affected the refining industry by reducing the consumption of petroleum fuels, and compliance with the RFS has recently increased costs for some refiners, as well as other challenges. The other three key environmental regulations we reviewed have had minimal effects to date because they have either not yet been implemented or have generally not affected the industry in a major way, according to several stakeholders and information we reviewed.

CAFE and GHG Vehicle Emission Standards

According to information we reviewed and two stakeholders we contacted, CAFE and GHG vehicle emission standards have contributed to reductions in the consumption of petroleum fuels, but the extent is unclear. These standards aim to reduce oil consumption, and although they do not require changes at the refinery level, they can affect refineries indirectly by contributing to improvements in the overall efficiency of the vehicle fleet and, therefore, reducing fuels consumption. However, the National Academy of Sciences reported that it is difficult to isolate the effect of CAFE and GHG vehicle emissions standards from other factors that also affect consumption, such as higher fuel prices and changing driving habits.[39]

Stakeholders had different views on the extent to which CAFE and GHG vehicle emission standards have affected consumption of petroleum products. We reported, in 2007, that CAFE standards—along with higher fuel prices and other factors—contributed to a reduction in transportation

[39]See: National Research Council, *Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards* (Washington, D.C.: The National Academies Press, 2002).

fuel consumption of 2.8 million barrels per day in 2002.[40] CAFE standards for cars largely did not change from 1990 through 2010, but they were strengthened beginning with model year 2011. According to EPA and DOE officials, since the standards did not change until recently, CAFE and GHG vehicle emissions standards did not cause the shift from growing consumption to declining consumption discussed previously. Regarding the strengthened standards, EPA estimated in 2010 that vehicles were expected to save 1.3 billion gallons of gasoline in 2013 compared with model year 2011 standards.[41] This is equivalent to about 1 percent of EIA's projection of gasoline consumption in 2013. A stakeholder told us that the CAFE and GHG vehicle emissions standards have likely had a relatively large impact on petroleum demand declines in the past few years, but it is unclear how much declining demand overall can be attributed to these standards versus other factors such as the recent economic recession and higher fuel prices. On the other hand, EPA and DOE officials, and a refinery representative told us that the most recent changes to CAFE and GHG vehicle emissions standards have had a marginal effect on petroleum demand so far. DOE officials also told us that the impact of the standards has been limited because they affect new car sales, and there are a relatively small number of new vehicles in the overall fleet.

RFS

Several stakeholders we contacted and information we reviewed cited three main effects that the RFS has had on the domestic petroleum refining industry or individual refiners—compliance has increased costs, declining domestic consumption, and investment uncertainty. In addition, EPA has been late in issuing annual RFS standards, and several factors contribute to the delays.

[40]See: GAO, *Vehicle Fuel Economy: Reforming Fuel Economy Standards Could Help Reduce Oil Consumption by Cars and Light Trucks, and Other Options Could Complement These Standards*, GAO-07-921 (Washington, D.C.: Aug. 2, 2007). Other factors contributing to reduced transportation fuel consumption include higher fuel prices. See: National Academies of Sciences, 2002.

[41]See: EPA, *Final Rulemaking to Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards Regulatory Impact Analysis*, EPA-420-R-10-009 (Washington, D.C.: April 2010).

RFS Has Had Three Main Effects

Stakeholders we contacted and information we reviewed identified three main ways the RFS has affected U.S. petroleum refiners: (1) compliance has recently increased costs for some refiners, (2) required blending of renewable fuels has contributed to declining domestic consumption of petroleum-based transportation fuels, and (3) EPA's delays in issuing annual RFS standards may have contributed to investment uncertainty for some refiners. First, compliance with the RFS has recently increased costs for some refiners, according to information we reviewed and several stakeholders we contacted. Under the RFS regulations, refiners and other obligated parties are required to ensure U.S. transportation fuels include certain amounts of renewable fuels. To comply, refiners generally have two options—they can purchase and blend renewable fuels themselves, or they can pay others to blend or use renewable fuels by purchasing credits.[42] These credits can be freely traded, and prices for credits are established based on the market and generally reflect the stringency of requirements and the costs of incorporating additional renewable fuels into the transportation fuel system to comply with the RFS—if costs increase, credits prices would tend to increase as well. According to EIA, corn-based ethanol credit prices were low—between $0.01 and $0.05 per gallon between 2006 and much of 2012—because it was generally economical to blend up to or above the level required by the RFS. However, in 2013, prices for these credits increased to over $1.40 per gallon in July before declining to about $0.20 per gallon as of mid-November 2013.

Several stakeholders told us this increase in credit prices was primarily due to RFS requirements exceeding the capability of the transportation fuel infrastructure to distribute and the fleet of vehicles to use renewable fuels, referred to as the "blend wall." A refiner we spoke with also attributed the decline in credit prices in the second half of 2013 to EPA's statements expressing its desire to address the blend wall. We have

[42]EPA uses renewable identification numbers to track compliance with the RFS. In this report, we refer to these as credits. Renewable fuel producers, refiners, and fuel blenders, among others, can acquire credits under the RFS, though only refiners and importers of petroleum-based transportation fuels are obligated under the RFS. If a company generates more credits than it needs for compliance in a given year, excess credits can be sold to others, or saved for the following compliance year, subject to certain constraints.

Examples of the Effect of Increasing Renewable Fuel Standard (RFS) Credit Costs on Refiners

- According to company financial regulatory filings, the cost of credits increased almost 10-fold in the first 9 months of 2013 for one refiner compared with a similar period in 2012, and credit costs for another refiner more than doubled.
- A refining company representative told us that credit costs under the RFS exceeded the company's entire operating budget, including labor and electricity, for a period in 2013.
- As a result of higher credit costs, representatives of a refiner told us they have begun to consider the point at which their revenue may cease to cover the cost of purchasing credits. Representatives told us that, at a certain point, the company might need to decrease production levels, and thereby reduce its renewable fuel blending obligations.
- An ExxonMobil official said that RFS credit costs did not have a significant impact on the company's financial performance during the second quarter of 2013 because ExxonMobil meets the majority of its obligation by blending renewable fuels itself.

Source: GAO.

previously reported on the blend wall and other challenges to the increasing use of renewable fuels.[43]

While the RFS applies to all refiners in the same way, the effect of the rise in credit prices may depend on each refiner's situation. However, in comments to this report EPA stated that refiners experience the same compliance costs. As a result of higher costs, several stakeholders told us refiners could reduce production, produce more jet fuel, which is not subject to RFS requirements, or increase exports to nations where the RFS does not apply. (See app. III for more information about the blend wall, RFS credits, and views on how they have affected U.S. refiners.)

Second, the RFS has contributed to the declining domestic consumption of petroleum-based transportation fuels. Under the RFS regulation, refiners and other obligated parties are required to ensure U.S. transportation fuels include certain amounts of renewable fuels. As a result, refiners and other industry participants have blended increasing amounts of renewable fuels. For example, consumption of ethanol has increased almost 8-fold since 2000, from 1.7 billion gallons in 2000 to 12.9 billion gallons in 2012. According to EIA, increased ethanol use since 2007 displaced over 4 billion gallons of petroleum-based gasoline, or about 3 percent of gasoline consumption in 2012. As discussed previously, decreases in consumption affect refiners by decreasing the size of the domestic market. Since the RFS was established in light of concerns about the nation's dependence on imported crude oil, decreased consumption of petroleum products may further some of the objectives of the RFS.

Third, the RFS has contributed to investment uncertainty for refiners according to several stakeholders because EPA has not issued annual

[43]See: GAO, *Biofuels: Challenges to the Transportation, Sale, and Use of Intermediate Ethanol Blends*, GAO-11-513 (Washington, D.C.: June 3, 2011), and *Biofuels: Potential Effects and Challenges of Required Increases in Production and Use*, GAO-09-446 (Washington, D.C.: Aug. 25, 2009).

RFS standards on time since 2009.[44] Beginning in calendar year 2009 and through calendar year 2022, EPA is required to set annual blending percentages for total renewable fuels, advanced biofuels, cellulosic biofuels, and biomass-based diesel fuels by November 30 of the preceding calendar year.[45] However, as shown in figure 9, EPA has missed the statutory deadline to set annual percentages since 2009.[46] Most recently, EPA issued 2013 standards in August 2013—over 8 months late—and has not issued the 2014 standards. EPA proposed the 2014 standards on November 29, 2013, and EPA officials told us that they plan to finalize the standards in Spring 2014. The RFS compliance period—the time during which refiners and other parties incur obligations under RFS and can take steps to incorporate additional renewable fuels to create credits for compliance—is set by statute to be a full calendar year, and delays do not change this compliance period.[47] As a result, when the RFS standards are issued late, the industry has less time to plan and budget effectively. Several representatives of refiners told us

[44]The RFS has also posed compliance challenges for refiners and other market participants because of concerns over fraud in the market for RFS compliance credits. Credits must be validly generated in order for renewable fuel producers to be able to transfer or use them for compliance purposes. For example, EPA has issued several notices of violation alleging that five companies generated more than 170 million gallons of invalid credits without producing qualifying renewable fuels. These invalid credits had been used for compliance by many refining companies. EPA recently issued a Notice of Proposed Rulemaking, which describes a voluntary program known as the Quality Assurance Program to help assure that credits are validly generated. The notice proposes that voluntary third parties verify the validity of credits through steps such as verification of type of feedstocks, verification that volumes produced are consistent with amount of feedstocks processed, and verification that credits generated are appropriately categorized and match the volumes produced.

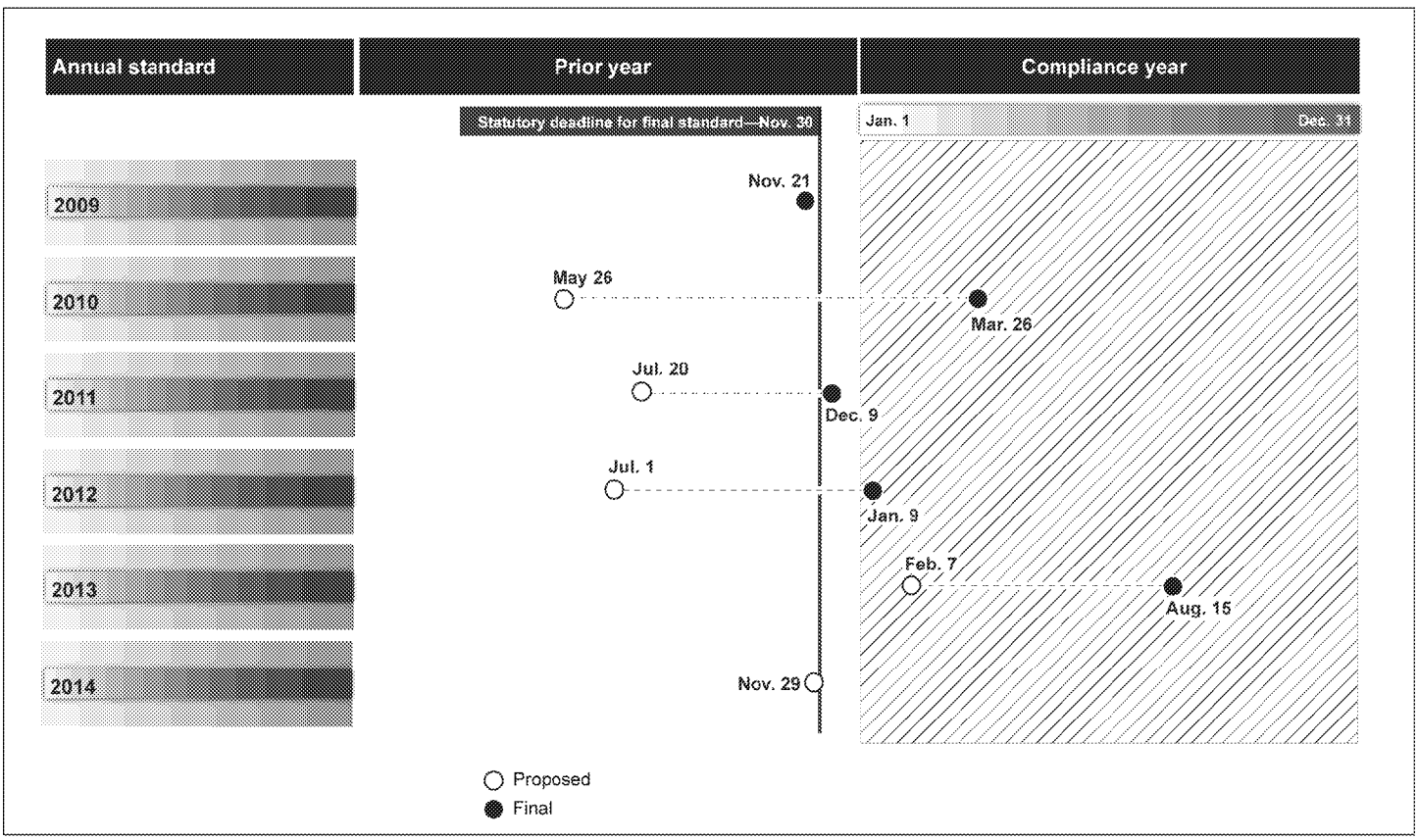
[45]The requirement for cellulosic biofuel began in calendar year 2010.

[46]For calendar years after 2012, EPA is also required to set biomass-based diesel volumes at least 14 months in advance. Though not shown in figure 9, EPA has also been late in issuing final standards for biomass-based diesel. EPA issued the final volume standards for 2013 in September 2012—about 10 months late. As of March 2014, EPA is 16 months late in finalizing standards for 2014 and 4 months late in finalizing standards for 2015. EPA proposed standards for 2014 and 2015 on Nov. 29, 2013, which have not been finalized.

[47]The RFS compliance deadline—the date by which refiners and other obligated parties must demonstrate compliance to EPA—is established by EPA through implementing regulations and has been adjusted by EPA. For example, EPA extended the compliance deadline for the 2013 compliance year from February 28, 2014 to June 30, 2014. The extension provided more time for refiners and other obligated parties to purchase and allocate credits.

that delays in issuing annual RFS standards increase uncertainty for refiners and renewable fuel producers, making it more difficult to make long-term planning decisions. One refining company representative told us that the company has reduced capital investments due to uncertainty related to the RFS. In contrast, EPA officials told us that there is no indication that delays have caused significant problems for refiners. They also noted that delays could actually make annual standards more robust since EPA then has more data upon which to base decisions.

Figure 9: Timeline of EPA's Issuance of Proposed and Final RFS Standards (2009-2014)



Source: GAO analysis of proposed and final regulations.

Note: The proposed and finalized dates are the regulations' publication dates in the Federal Register, not the dates EPA signed the regulations and publicly released them.

Regulatory Development Processes Contribute to EPA Delays in Issuing RFS Standards

EPA officials told us that delays in issuing RFS standards have largely been due to the length of the regulatory development process, which includes interagency and public reviews. Under the interagency review process, EPA is to follow certain procedures before publishing proposed or final regulations that establish annual RFS standards, including submitting draft proposed and final regulations to the Office of Management and Budget (OMB), which coordinates review of the draft regulations by other agencies, as well as conducting its own review. The interagency review process is to ensure that regulations are consistent with the President's priorities, among other things, and that decisions made by one agency do not conflict with the policies or actions taken or planned by another. Under the public review process, EPA must publish a proposed standard in the Federal Register, provide the public with the opportunity to review and comment on the proposal, and address comments received before finalizing the regulation. According to EPA officials, the interagency and public review processes can be time consuming because the RFS standards involve complex and controversial issues and balance competing agricultural, energy, and environmental policy interests.

In 2009, we recommended that EPA and other agencies track their performance for developing significant regulations against targeted milestones to identify opportunities for improvement.[48] We found that monitoring actual versus estimated performance could help agency managers identify steps in the process that account for substantial time and provide information necessary to evaluate whether time was well spent. In this regard, EPA stated in comments to our 2009 report that it uses an agency-wide Action Development Process that tracks 14 milestones as it develops proposed rules and additional milestones in developing final regulations. For example, EPA tracks when its senior management approves of a document describing the scope of the regulation and the analytical work necessary to develop it, known as the detailed analytic blueprint. In comments to our 2009 report, EPA stated that it used an internal tracking system along with additional information

[48]See GAO, *Federal Rulemaking: Improvements Needed to Monitoring and Evaluation of Rules Development as Well as to the Transparency of OMB Regulatory Reviews,* GAO-09-205 (Washington, D.C.: Apr. 20, 2009).

to develop regulatory management reports to EPA managers and executives. EPA stated at the time that this process helps management identify regulations that are off-track so that corrective steps can be taken to expedite their completion. EPA officials told us that they develop RFS regulations using the same procedures used for developing all EPA regulations. However, even with these systems, EPA has not met its statutory deadlines under the RFS in the five annual standards since 2009. EPA has not conducted a systematic review of its experience issuing RFS regulations to identify the underlying causes of repeated delays and has not identified changes in its approach that may help to avoid these delays in the future. Without such analyses and a plan to address the underlying causes of the delays, EPA risks repeating them.

Other Key Regulations

The other key regulations that we reviewed—Tier 3 standards, stationary source GHG requirements, and LCFS—have had minimal effects to date because these regulations either have not yet been implemented (Tier 3 standards) or, with respect to the other two, have not affected industry operations or costs in a major way, according to stakeholders and information we reviewed. Specifically:

- *Tier 3 standards*. Tier 3 standards were proposed on May 21, 2013, and EPA announced final standards on March 3, 2014; therefore, they have had not had a direct effect on industry to date.

- *Stationary source GHG requirements*. Representatives of two refiners told us that stationary source GHG requirements have been burdensome to refiners; however, several other stakeholders told us they have not had a major effect, and EPA officials told us they were aware of only three refineries that have received major source GHG permits since the GHG permitting program was implemented in 2011.[49] A refining company representative expressed concerns to us about the lengthy permitting process to authorize GHG emission increases. However, stationary source GHG requirements do not apply unless an existing refining facility proposes a major modification

[49]These refineries are the Hyperion Refinery and Energy Center in South Dakota, the Sinclair Wyoming Refinery in Wyoming, and the Diamond Shamrock, Valero McKee Refinery in Texas.

or a new refinery is proposed for construction.[50] An EPA official said that, in most cases, best available control technologies selected to comply with GHG requirements for refining facilities involve energy efficiency improvement measures that could help refiners reduce fuel consumption and save money. Further, EPA officials also explained that, in some cases, delays can occur when the refinery applicant has not provided EPA with the proper information to proceed with processing the permit.[51] The Clean Air Act requires that EPA approve or deny such permits within 12 months of receiving a complete application.

- *LCFS*. CARB, the entity responsible for implementing LCFS, said the regulation has had a modest effect to date—increasing fuel prices by about $0.01 per gallon. LCFS is the subject of several ongoing lawsuits,[52] which resulted in a 4-month delay in some regulatory activities and uncertainty about the status of the regulation.[53] According to a study conducted by a consultant on behalf of industry, the ongoing legal challenge to LCFS is creating uncertainty that

[50]A major modification refers to a physical or operational change that would result in a significant net increase in emissions of a regulated pollutant. However, in our prior work, we noted that it can be difficult for unit owners and regulators to know whether an air pollution permit is needed, because permitting rules governing applicability are complex and because applicability is determined on a case-by-case basis. See: GAO, *Air Pollution: EPA Needs Better Information on New Source Review Permits,* GAO-12-590 (Washington, D.C.: June 22, 2012).

[51]State permitting agencies may also issue GHG permits to refineries subject to EPA guidance.

[52]In a consolidated lawsuit, a Midwest ethanol group and an association of petroleum refiners claimed that LCFS discriminates against petroleum and ethanol firms from outside the state, and that the regulation was preempted by the Clean Air Act. Following appeal of an adverse District Court decision, in September 2013, the Ninth Circuit Court of Appeals largely upheld the LCFS by remanding one issue back to the district court for trial. Groups representing the energy industry and farmers, among others, have petitioned for the case to be reheard before the full Ninth Circuit. LCFS was also challenged in state court on administrative procedural grounds, which we describe above. CARB officials told us that they were optimistic about the outcome of these legal challenges, and said that their expectation is that if the courts do find against CARB on any particular issues, they would be able to narrowly adjust the regulations in order to address the court's findings and did not anticipate needing to wholesale replace or rework the regulations.

[53]In December 2011, a federal judge granted a preliminary injunction against the implementation of the LCFS, among other rulings. CARB appealed the decision and the Ninth Circuit Court of Appeals stayed the injunction in April 2012 and later reversed the District Court on these rulings.

discourages new investments by industry.[54] A refining industry trade association representative told us many refiners that previously invested in new components for their California facilities to process heavy crude oils may not be able to make an adequate return on investment since the LCFS disincentivizes the use of carbon intensive heavy crude oils. However, a CARB official noted that LCFS does not specifically prohibit any crude oil from being processed in California refineries, but rather it ensures that the LCFS' goal to reduce carbon intensity in transportation fuels is not affected by increased use of higher carbon intensity crude oils. Nevertheless, California refiners have thus far been able to comply with LCFS requirements by blending lower carbon intensive renewable fuels—such as Brazilian sugar-cane ethanol—or purchasing carbon credits as an alternative method of compliance.

Industry Outlook Depends on a Number of Factors

Stakeholders we contacted and information we reviewed generally suggest that the outlook of the U.S. refining industry depends on a number of factors, in particular: (1) future domestic consumption of petroleum products; (2) the extent to which key environmental regulations raise costs for domestic refiners; and (3) the extent to which domestic refiners will be able to export and compete in international markets.

Uncertain Future Domestic Consumption

The outlook of the U.S. refining industry depends on future domestic consumption of petroleum products, which is uncertain, according to stakeholders we contacted and information we reviewed. As discussed above, domestic petroleum product consumption declined by 11 percent from 2005 through 2012, and forecasts we reviewed project consumption of three major petroleum products—gasoline, diesel, and jet fuel—will be stable to slightly increasing through 2020, but not returning to high levels of the past.[55] Most of the scenarios in forecasts we reviewed from IHS

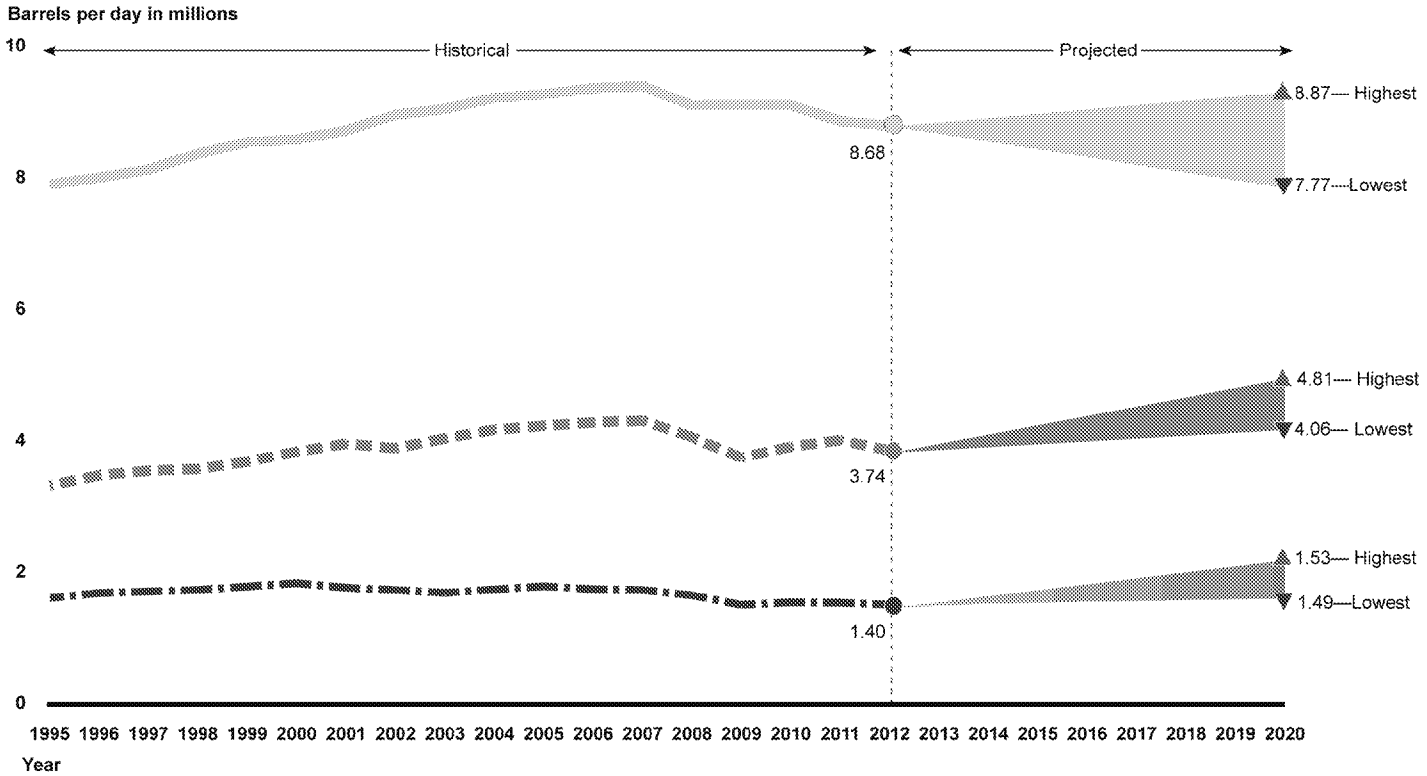
[54]The Boston Consulting Group, *Understanding the impact of AB 32* (Boston, MA: June 2012).

[55]The IEA forecast that we reviewed did not include a projection of U.S. consumption. EIA data track "product supplied," which approximately represents consumption of petroleum products because it measures the disappearance of these products from sources such as refineries, bulk terminals, and pipelines. Because the future depends on a multitude of factors that can be difficult to predict, EIA's 2013 and initial 2014 forecast include 28 scenarios with different assumptions about future conditions, such as economic growth or policy changes. (See app. I for additional information on our methodology.)

and EIA project total consumption of gasoline, diesel, and jet fuel to increase slightly by 2020, with projections ranging from a decline of 2 percent to an increase of 7 percent compared with 2012 consumption.[56] Expectations differ somewhat by fuel, with all EIA scenarios projecting gasoline consumption to decline or remain stable and diesel and jet fuel consumption to increase from 2012 to 2020 (see fig. 10). IHS projects an increase in the consumption of both gasoline and diesel, with more robust growth projected for diesel. Scenarios in the forecasts we reviewed generally project consumption to decline after 2020.

[56]Forecasts with more recent data and revised assumptions can indicate somewhat different levels of consumption. For example, in its 2013 forecast, IHS projected higher domestic consumption in 2020 than its previous year's forecast. EIA recently released initial results of its 2014 forecast, in which EIA projected lower domestic consumption in the reference scenario compared with the reference scenario in the 2013 forecast also discussed in this report. EIA attributed the difference, in part, to reduced expectations for vehicles miles traveled.

Figure 10: Historical (1995-2012) and Projected (2020) U.S. Consumption of Gasoline, Diesel, and Jet Fuel



Sources: GAO analysis of Energy Information Administration and IHS data.

Note: This figure displays the highest and lowest projections of U.S. consumption of gasoline, diesel, and jet fuel in the IHS and EIA forecast scenarios we reviewed. Specifically, for gasoline, the highest projection is IHS's forecast, and the lowest is EIA's "low or no net imports" scenario, which builds numerous assumptions to generate a hypothetical situation in which the United States eliminates net imports of liquid fuels. For diesel, the highest projection is EIA's "high economic growth" scenario, which assumes stronger growth in gross domestic product than in the reference scenario, a business-as-usual estimate that assumes current laws and policies are unchanged. The lowest projection for diesel is IHS. For jet fuel, the highest projection is EIA's "high economic growth" scenario, and the lowest is EIA's 2014 "reference" scenario.

Forecasts indicate that the level of future domestic consumption—the size of the domestic market for petroleum products—may affect future U.S. refinery production. In higher consumption scenarios, EIA's projections suggest higher refinery production than in scenarios with lower domestic consumption. Specifically, EIA projects that inputs to refineries—which track trends in refinery production—in 2020 would be about 1 million barrels per day higher in scenarios with higher domestic consumption—a

difference of about 7 percent of 2012 inputs. This difference is equivalent to about eight average-size U.S. refineries.

Several stakeholders we contacted and information we reviewed highlighted various factors that can affect future domestic consumption levels and thereby the size of the largest market for the production of U.S. refineries, including the following:

- *Economic growth*. Faster economic growth tends to increase consumption, and EIA's forecast scenario with higher economic growth assumptions projects greater future consumption of petroleum products than a scenario with low economic growth.
- *Crude oil and petroleum product prices*. Higher prices for crude oil and petroleum products tend to decrease consumption. For example, of the forecast scenarios we reviewed, the scenario that assumes high future oil prices projects lower domestic consumption of petroleum products.
- *Shifts in consumer behavior and demographic trends*. Changes in consumer behavior, such as reduced driving, along with demographic trends, such as an aging population and fewer young people with driving licenses, may reduce future consumption, according to EIA.
- *Key regulations*. Three of the key regulations we reviewed—CAFE and GHG vehicle emission standards, RFS, and LCFS—are expected to reduce domestic consumption of petroleum products in the future according to information we reviewed, though it is uncertain by how much. CAFE and GHG vehicle emission standards will require more efficient vehicles in the future, which may reduce future consumption of fuels. EPA estimated that the model year 2012-2025 standards are projected to reduce U.S. consumption of crude oil by 2.2 million barrels per day by 2025, equivalent to almost 15 percent of crude oil

used by refineries in 2012.[57] Similarly, under the RFS statute, unless waived by EPA, renewable fuels blending is required to double by 2022, which EPA estimated would reduce gasoline and diesel demand by 13.6 billion gallons, equivalent to about 10 percent of consumption in 2012.[58] Furthermore, CARB projected that the LCFS would help decrease future gasoline consumption in California. However, the extent to which these regulations will reduce future consumption depends on actions by regulators and market and other developments. For example, as discussed above, EPA has proposed to reduce renewable fuel requirements for 2014 due to an inadequate supply in light of the blend wall and other issues. EPA stated that the framework it applied to determine the proposed percentage standards could be appropriate for later years. Therefore, the potential for RFS to reduce petroleum-based fuel consumption will depend on the percentages finalized by EPA, which, in turn will depend on the development of advanced renewable fuel sources and market infrastructure and could be affected by legal challenges, as well as any legislative action to modify the RFS.[59]

Costs of Key Regulations

Stakeholders we contacted and information we reviewed generally suggest that the outlook of the U.S. refining industry will also depend on the extent to which some key regulations—RFS, Tier 3, stationary source GHG requirements, and LCFS—increase costs for refiners. In general, increasing costs for refiners may be absorbed by refiners themselves

[57] *The American Energy Initiative, Part 22: EPA Greenhouse Gas Regulations, Before the Subcomm. on Energy and Power of the H. Comm. on Energy and Commerce*, 112th Cong. (2012) (statement of EPA Assistant Administrator for Air and Radiation, Regina McCarthy). In addition, EPA specifically projected that the 2012-2016 CAFE and GHG vehicle emission standards would reduce domestic-refined gasoline consumption by about 7 billion gallons per year by 2020 and shrink domestic refining by about 3 percent by 2020. (See: EPA, *Final Rulemaking to Establish Light-Duty Vehicle Greenhouse Emission Standards and Corporate Average Fuel Economy Standards, Regulatory Impact Analysis* (Washington, D.C.: April 2010.)

[58] See EPA, *Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis*, EPA-420-R-10-006 (Washington, D.C.: February 2010).

[59] Similarly, while EPA issued GHG vehicle emission standards through 2025, NHTSA is required to set CAFE standards only 5 years at a time. CAFE standards for model years 2022-2025 have been presented by NHTSA as "augural" standards in the interest of aiding manufacturers in future product planning, as well as harmonization. A midterm evaluation by NHTSA and EPA may result in modifications to both EPA standards and NHTSA's augural standards. In addition, as discussed below, future requirements under the LCFS—and their effect on refiners—are uncertain due to various factors.

(i.e., by reducing their profits), be passed on to consumers through higher product prices, or both. The requirements on domestic refiners from the key regulations we reviewed generally are expected to collectively have a greater effect in the future, for example, by affecting more refiners (such as the stationary source GHG requirements to the extent that more refineries make modifications over time), or becoming more stringent in the future (such as the RFS), potentially increasing costs for refiners. In addition, several stakeholders told us that the uncertainty surrounding these regulations—and what costs they will impose—can affect the market climate within which refiners and other market participants make investment decisions such as whether to expand a refinery's ability to process different crude oils, or to build new advanced biofuel processing facilities. Such uncertainty can discourage investments in the industry overall.

- *RFS*. RFS may increase costs for some refiners depending on the percentages of renewable fuels required by EPA and on other factors. As discussed previously, costs for some refiners to comply with RFS rose in 2013, which some of the stakeholders we contacted attributed to concerns about the blend wall. The blend wall may remain a concern into the future because statutory renewable fuel blending requirements continue to increase—they more than double from 2012 to 2022—while the consumption of petroleum products is expected to increase only slightly. Several stakeholders told us that the effect of the RFS depends in particular on how EPA addresses the blend wall in the annual standards it issues in the future. Furthermore, EPA's timeliness in issuing the standards could also affect costs to the extent that delays affect the supply of renewable fuels, RIN prices, and refiners' ability to plan and budget effectively for compliance. Several representatives of refiners told us that future delays would contribute to investment uncertainty and higher costs for refiners. EPA officials said that they did not believe delays have affected market participants, and that the market for RFS credits has provided flexibility to refiners and other obligated parties. The extent to which the RFS increases costs in the future could also be affected by the outcome of any relevant litigation and of legislative proposals to change the RFS or how EPA implements it.

- *Tier 3*. According to EPA, to meet the Tier 3 fuel sulfur standards, refiners would need to install or upgrade hydrotreating capacity or

take other steps to reduce the sulfur content in fuels, which will likely increase industry-wide costs.[60] EPA projected that 67 out of 108 refineries would modify or purchase some equipment, and the capital costs of installing this equipment and operating costs to run it would average about $0.0065 per gallon, and total $804 million in 2017. An industry study of the Tier 3 proposal estimated that the regulation would increase costs by up to $0.09 per gallon for the highest-cost refinery, and several refinery representatives told us that Tier 3 would increase their costs.[61] The extent to which the refining industry will be affected by Tier 3 standards would have been greater had EPA decreased the per-gallon maximum allowable sulfur levels in gasoline—known as caps. In the final standards, EPA maintained the current 80 ppm cap, but had sought comment on whether it should decrease the cap to as low as 20 ppm. A stakeholder told us that Tier 3 would be manageable if EPA maintained the current caps, but far more difficult if the caps were lowered. One study we reviewed estimated that industry could incur additional capital expenses to achieve lower sulfur caps, ranging from $2 billion to over $6 billion dollars depending on the sulfur cap level in the final standards.[62]

- *Stationary source GHG requirements*. Several of the refining industry representatives we contacted expressed concerns that stationary source GHG requirements could become more stringent in the future. The current permitting framework is a case-by-case determination that takes into account costs, among other factors, and places no requirement on existing refineries unless they undertake a major modification. However, EPA entered a settlement in which the agency agreed to develop national performance standards—called New Source Performance Standards—for GHG emissions from new and modified refineries, and GHG emissions guidelines for certain facilities at existing refineries.[63] Although EPA has no current schedule to issue these standards, EPA committed in its settlement to issue them, and

[60]Hydrotreating removes sulfur by converting the sulfur into hydrogen sulfide gas and then to elemental sulfur.

[61]Baker & O'Brien Incorporated, *Addendum to Potential Supply and Cost Impacts of Lower Sulfur, Lower RVP Gasoline* (March 2012).

[62]Turner, Mason & Company, *Economic and Supply Impacts of a Reduced Cap on Gasoline Sulfur Content* (Dallas, Texas: February 2013).

[63]See: Settlement Agreement, *State of New York, et al, v. Environmental Protection Agency*, No. 08-1279 (D.C. Cir. Dec. 29, 2010).

several stakeholders expressed concern that future standards could impose more strict controls involving higher costs at refineries. A stakeholder told us that until EPA clarifies its approach for NSPS, many refiners will be reluctant to make certain investments in their refineries out of concerns that their investments may be unprofitable given future requirements. In addition, some companies may preemptively factor in the cost of emissions control technologies in their investment analyses.

- *LCFS*. Two stakeholders and a refining industry trade association told us that California refiners could face higher costs or compliance challenges unless CARB adjusts future low carbon fuel requirements. CARB has estimated that the cost of LCFS on gasoline and gasoline-substitute fuels is likely to range between an increase of $0.09 per gallon, and a decrease of $0.13 per gallon by 2020.[64] However, an industry study estimated that the LCFS could cost the refining industry an average of $0.70 per gallon by 2020.[65] The study also projected that 5 to 7 of 14 California refineries could cease production by 2020, and the LCFS could raise other compliance challenges because of insufficient supplies or consumer uptake of cellulosic, Brazilian sugar-cane ethanol, and other low carbon intensity fuels or vehicle technologies. CARB officials told us that if it proves more difficult than expected to meet LCFS requirements, CARB could introduce cost containment provisions to increase the availability of credits, such as through a "safety valve" to release additional credits at a set price, or by providing extra credits to certain compliance approaches.[66] Stakeholder told us that the decisions CARB makes with respect to the LCFS may affect California refiners' ability to stay in business and compete with refiners in other states and countries.

Extent to Which Refiners Can Export and Compete in Foreign Markets

While the domestic refining industry has increasingly relied on export markets, stakeholders and forecasts we reviewed indicate that the industry's future competitiveness is uncertain and that foreign markets present both challenges and opportunities for U.S. refiners.

[64]California Air Resources Board, *Low Carbon Fuel Standard 2011 Program Review Report* (Sacramento, CA: December 2011).

[65]Boston Consulting Group, *Understanding the Impact of AB32* (Boston, MA: June, 2012).

[66]For example, an electric car could receive three additional credits, thus reducing the need for low carbon fuels with limited availability.

Refiners Projected to Continue to Rely on Foreign Markets

Forecasts and data we reviewed from EIA and IEA suggest that future domestic refinery production levels may depend on exports of petroleum products.[67] Petroleum products are increasingly global commodities, and EIA data indicate that as domestic consumption has declined, refiners have looked to foreign markets to sell products. Since 1949, the United States had been a net importer of petroleum products, but this long-term trend reversed in 2011 when the United States became a net exporter of total petroleum products. According to EIA data, the United States recently exported more petroleum products than other leading exporters, including Russia, India, and Singapore, and petroleum product exports have represented an increasing share of U.S. refinery production. Exports of petroleum products represented 7 percent of refinery production in 2007 but increased to 17 percent in 2012. Major markets for U.S. exports include Central and South America, Mexico, and Europe, to which U.S. refiners sent nearly all diesel exports in 2012. The United States exports more diesel than gasoline, though U.S. refiners have been increasing exports of gasoline to Central and South America and Africa.[68]

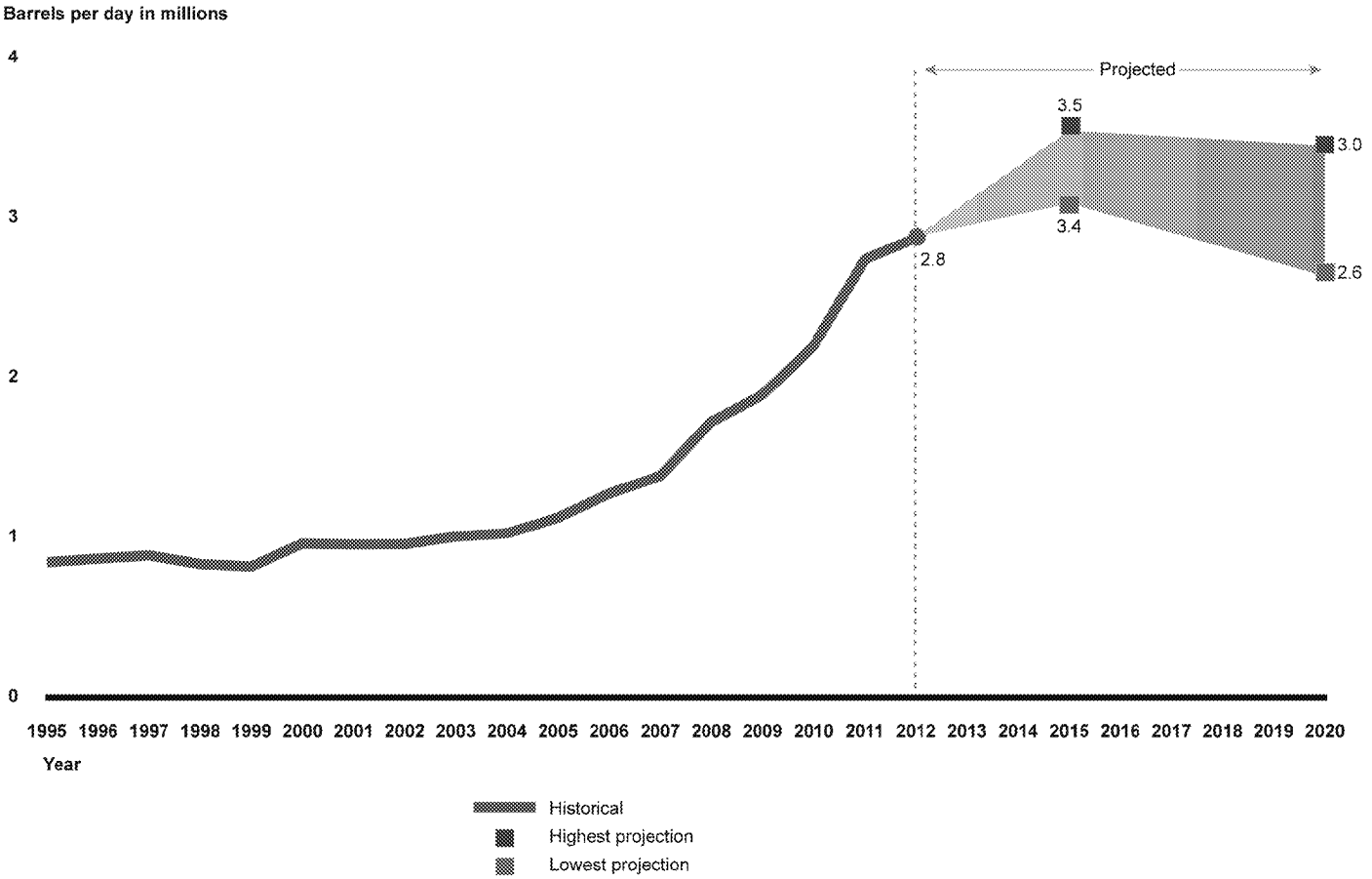
Forecasts that we reviewed generally project that exports will remain strong. According to most of the EIA and IHS forecasts we reviewed, exports of petroleum products are expected to increase until 2015, but the extent of the increase is unclear. As shown in figure 11, EIA scenarios project export levels from 2.6 to 3.4 million barrels per day by 2020, a relatively wide range.[69] Even the lowest projection for petroleum product exports in 2020 is above 2010 levels, indicating a general expectation that exports will remain strong.

[67]Unless noted otherwise, exports of petroleum products in this section refer specifically to finished petroleum products, natural gas liquids and liquid refinery gases, oxygenates (excluding fuel ethanol), and motor gasoline blending components. Finished products include finished motor gasoline, finished aviation gasoline, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, and other products.

[68]According to EIA, U.S. exports of diesel reached a record monthly high in July 2013, at 1.4 million barrels per day, and remained strong in August and September 2013. Continued growth in global diesel consumption has supported U.S. exports.

[69]We did not include IHS data in this figure because they are not public.

Figure 11: Historical (1995-2012) and Projected (2015 and 2020) U.S. Exports of Petroleum Products



Sources: GAO analysis of Energy Information Administration and IHS data.

Note: This figure displays the highest and lowest projections of U.S. petroleum product exports by the EIA forecast scenarios we reviewed. Specifically, the highest projection is from EIA's "greenhouse gas $25 and low gas prices" scenario, which assumes a fee for carbon emissions starting at $25 per metric ton in 2014, as well as high crude oil and natural gas resources consistent with EIA's "high oil and gas resource case." The lowest projection is from EIA's "low oil and gas resource" scenario, which assumes lower crude oil and natural gas resources than in the "reference" scenario.

Foreign Markets Could Present Both Challenges and Opportunities for U.S. Refiners

The extent to which domestic refiners are able to export their products will depend on the competitiveness of domestic refiners compared with foreign refiners, and stakeholders we contacted and information we reviewed highlighted both challenges that may inhibit competitiveness and opportunities that may increase it in the future. To sell products abroad, refiners need to be competitive—that is, they must be able to supply fuels that foreign purchasers want to buy at prices that are

attractive. Stakeholders and information we reviewed suggest that various factors may affect the U.S. refining industry's future competitiveness, including: (1) the balance between global refining capacity and global demand for petroleum products, (2) costs associated with environmental regulations, (3) exports to nations with stringent fuel standards, and (4) increasing domestic and Canadian crude oil production. More specifically:

- *Balance between global refining capacity and demand*. IEA data indicate that competition from foreign refiners may increase as global refining capacity is projected to exceed global consumption, creating an imbalance between global supply and demand that may affect U.S. refiners. According to IEA, global consumption of petroleum products was about 78.9 million barrels per day in 2012 and is projected to grow an additional 6 million barrels per day by 2020—with growth concentrated in Asia and the Middle East and consumption declining in Europe. But IEA projects refining capacity may grow even faster, resulting in excess capacity (refining capacity beyond that needed to meet consumption) of nearly 15.5 million barrels per day by 2020, in contrast to an estimated 4.8 million barrels per day of excess capacity in 2012.[70] Excess refining capacity is likely to result in greater competition in foreign markets overall, and some regions may present particular challenges. A large share of the new capacity is expected in China, India, and the Middle East, and representatives of two refiners indicated concern that capacity additions in some of those regions may present competition for U.S. refiners. Several other stakeholders were optimistic about domestic refiners' ability to compete in the future. According to IEA, capacity additions in China and India are intended to keep pace with growing consumption in those regions, but new Middle Eastern refineries are intended to be export facilities and may present increased competition to U.S. refiners.

- *Costs associated with environmental regulations*. As discussed above, the key environmental regulations we reviewed could collectively impose additional costs on the domestic refining industry. These costs could affect the industry's ability to compete internationally to the extent that foreign refiners do not face similar costs. In addition, regulatory uncertainty can affect refiners'

[70]Excess capacity may result in some refinery closures. IEA's New Policies Scenario projects 6.3 million barrels per day of global refining capacity may be at risk of closure in 2020, but the projected capacity at risk is outside of North America.

competitiveness if it inhibits the industry from making investments that would otherwise lower costs. Not all of the key regulations we reviewed would be expected to affect the industry's competitiveness. In particular, CAFE and GHG vehicle standards do not impose requirements on refiners. In addition, although RFS and Tier 3 standards could impose requirements with potential associated costs on some refiners, they would not apply to exported fuels—they apply only to fuels sold in the United States regardless of where they are produced.

- *Potential for increased exports to nations with stringent fuel standards*. In general, U.S. refineries are among the most sophisticated in the world and have generally been optimized to produce large proportions of cleaner-burning gasoline. IEA has pointed out that refiners in many parts of the world face challenges producing fuels that meet high product quality and environmental performance standards.[71] Therefore, some U.S. refiners may benefit from any trend toward higher quality and more stringent environmental performance standards. In this regard, actions refiners may take to reduce gasoline sulfur to comply with proposed Tier 3 standards could enable them to export to markets—such as Japan and much of Europe—that already require low sulfur gasoline.[72] On the other hand, representatives of a refiner pointed out that refiners could undertake such investments on their own—without Tier 3—if such exports were sufficiently economically attractive.

- *Increasing domestic and Canadian crude oil production*. As discussed above, increasing U.S. and Canadian crude oil production has led to lower cost crude oil for some refiners, providing a competitive advantage.[73] All of the forecast scenarios we reviewed from EIA, IEA, and IHS anticipate increases in U.S. crude oil production, but the projections are uncertain and vary widely—from 6.8 to 9.8 million

[71]See International Energy Agency, *World Energy Outlook 2013* (Paris, France: November 2013).

[72]According to EPA, Japan, the 30 nations that comprise the European Union, Albania, and Bosnia-Herzegovina have 10 ppm gasoline sulfur caps in place.

[73]Closely associated with this trend has been the increasing availability and lower costs of natural gas, which has also provided a benefit to U.S. refiners.

barrels per day in 2020 as shown in figure 12.[74] Projections are revised each year, and expectations for U.S. crude oil production in 2020 have increased in more recent forecasts. For example, the reference scenario in EIA's most recent forecast projects domestic crude oil production to approach a historical high of 9.6 million barrels per day in 2020, higher than the reference scenario from the prior year.[75] Canadian crude oil production—which accounted for about 16 percent of the crude oil used by U.S. refineries in 2012—is expected to increase as well: the reference scenario in EIA's international forecast projects that Canadian petroleum liquids production will increase more than 30 percent from 2012 levels, reaching approximately 5 million barrels per day in 2020.[76] The extent of the increase in future crude oil production can have implications for future petroleum product exports. For example, EIA's scenario that assumes more domestic crude oil and natural gas resources projects higher export levels than a scenario that assumes low crude oil and natural gas resources. Several stakeholders told us that various issues could mitigate U.S. refiners' ability to take advantage of growing crude oil supplies. In particular, it is unclear whether planned expansions in pipelines and rail transportation will keep pace with growing production, and these infrastructure expansions could be affected by regulatory actions to address pipeline and rail safety.[77] Similarly, several stakeholders told us that potential future increases in crude oil

[74]EIA expects most of the increase to come from onshore tight oil formations in the Bakken, Eagle Ford, and Permian Basin regions, though increases are likely in domestic offshore production as well.

[75]EIA's most recent forecast, the Annual Energy Outlook 2014 Early Release, contains reference scenario projections only. Projections for other scenarios were not available at the time of this report's publication.

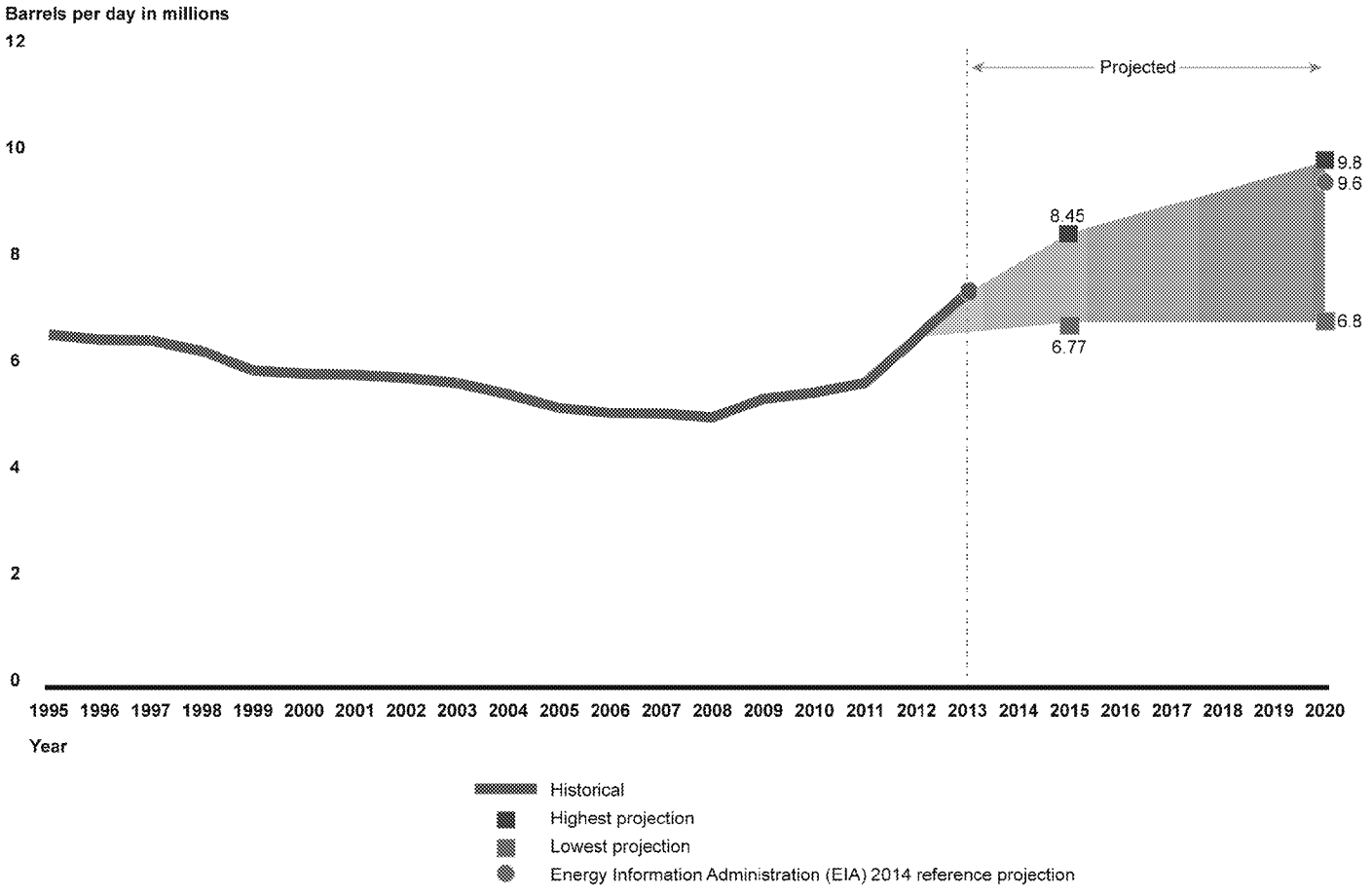
[76]According to EIA, petroleum liquids include crude oil and lease condensate as well as natural gas plant liquids, bitumen, extra-heavy oil, and refinery gains.

[77]For example, in July 2013, a deadly explosion occurred after a railcar carrying crude oil derailed in Quebec. In response to petitions it received following the accident, DOT's Pipeline and Hazardous Materials Safety Administration is considering whether to revise its regulations to improve railcar safety standards. See 78 Fed. Reg. 54849 (Sept. 6, 2013).

exports, which are currently minimal, could put pressure on regional crude oil prices, reducing the price advantage of U.S. refiners.[78]

[78]According to EIA data, total crude oil exports totaled 67,000 barrels per day in 2012—1 percent of total 2012 production. U.S. exports of crude oil must be licensed by the Department of Commerce, Bureau of Industry and Security. Current regulations specify limited conditions in which license applications will be approved, for example, for exports to Canada for use or consumption in Canada and that are transported other than through the Trans-Alaska Pipeline, for which some restrictions apply. Other applications for export licenses are to be reviewed on a case-by-case basis and generally will be approved if determined to be consistent with the national interest and the purposes of the Energy Policy and Conservation Act, and any additional statutory controls are satisfied. See generally 15 C.F.R. § 754.2 (2013).

Figure 12: Historical (1995-2013) and Projected (2015 and 2020) U.S. Crude Oil Production



Sources: GAO analysis of EIA and IHS data.

Note: This figure displays the highest and lowest projections of U.S. crude oil production by the IHS and EIA forecast scenarios we reviewed. Historical data for 2013 is the 9-month average of production through September. Specifically, the highest projection is EIA's "greenhouse gas $10 and low gas prices" scenario, which assumes 100 percent higher oil recovery and 50 percent higher undiscovered resources than in the reference scenario, as well as a policy change that applies a $10 per metric ton fee for carbon emissions throughout the economy beginning in 2014. The lowest projection, EIA's "high net imports" scenario, assumes 50 percent lower crude oil recovery than the reference scenario, along with changes that would create the need for increased imports. Also displayed is EIA's 2014 forecast reference scenario that assumes current laws and regulations are unchanged.

Conclusions

The domestic petroleum refining industry has been and is expected to continue to be affected by several profound changes. Some of these changes, such as the growth in crude oil production in the United States

and Canada, are reshaping the industry and creating new business opportunities. To take advantage of some of these opportunities, refiners and other market participants will need to invest—to upgrade refineries to be able to process different crude oils or to build pipelines or rail connections to move more crude oil from production to refining centers. Uncertainty can affect the market climate within which these investment decisions will be made. In this context, EPA's timeliness in issuing annual percentage standards under the RFS is important to help inform the investment decisions of the refining industry. In issuing annual percentage standards, EPA may waive the statutory volumes in whole or in part according to statutory criteria, which EPA has identified as potentially factoring in the blend wall, market developments, and other issues. However, EPA has missed the annual deadline for issuing annual standards under the RFS in most years. EPA has some systems in place to monitor and evaluate progress in developing regulations, which could provide useful information for understanding delays in RFS. But EPA has not identified the underlying causes of delays, and it has not developed a plan to address delays and, therefore, risks repeating delays. EPA delays in issuing RFS standards are important because delays do not change refiners' compliance periods accordingly and they therefore create uncertainty in the marketplace, potentially harming investment. Uncertainty among refiners, renewable fuel producers, and other market participants about how EPA will address the blend wall, which can be exacerbated by the prospect of litigation, can affect investment decisions and ultimately the availability and prices of the fuels they produce.

Recommendations for Executive Action

To improve EPA's ability to meet the annual statutory deadline for issuing annual RFS standards, we recommend that the Administrator of the EPA take the following two actions:

- Assess past experience to identify the underlying causes of delays in issuing annual RFS standards.
- Develop and implement a plan to address the causes of delays and help ensure RFS annual standards are issued on time.

Agency Comments and Our Evaluation

We provided drafts of this report to DOE, DOT, and EPA for review and comment. The three agencies provided technical comments on early or final drafts, which we incorporated as appropriate.

EPA also provided a letter in which it generally agreed with our findings and recommendations and clarified three topics discussed in the report.

First, regarding the effects of compliance with RFS, EPA asserted that refiners experience the same compliance costs regardless of whether they are fully integrated, with blending capabilities, or merchant refiners that purchase credits for compliance. Based on our work, we found the views of several stakeholders differed from EPA's. For example, in a 2011 study, DOE identified the degree to which a small refiner can actively blend production with renewable fuels is a large component that could contribute to economic hardship from compliance with the RFS.[79] In theory, market-based compliance systems—such as the RFS credit system—provide incentives for market participants to make decisions that would tend to equalize additional compliance costs over time. However, there can be physical infrastructure or contractual constraints, among various other factors, that could result in different outcomes in the short run. We added additional language to explain EPA's views in the report and in Appendix III.

Second, regarding the time-frame for RFS compliance, EPA stated that the RFS compliance deadline—the date by which refiners and other obligated parties must demonstrate compliance to EPA—is established through implementing regulations, not statute. EPA stated that it adjusted the 2013 deadline to provide additional time to demonstrate compliance. We acknowledge that EPA can extend the compliance deadline. However, the compliance period refers to the time during which refiners and other parties incur obligations under RFS and can take steps to incorporate additional renewable fuels to generate credits for compliance. This period is set by statute to be a full calendar year. We clarified language in the report to acknowledge EPA's ability to adjust the compliance deadline, essentially providing additional time for obligated parties to purchase credits, and its inability to adjust the compliance period.

Third, regarding Tier 3 standards, EPA announced the final standards while our draft was with the agency for comment. EPA stated that the final Tier 3 program is very similar to what it proposed, though EPA made

[79]Department of Energy, Office of Policy and International Affairs, *Small Refinery Exemption Study: An Investigation into Disproportionate Economic Hardship*, March, 2011.

some changes based on public input and updated its analyses. EPA provided technical comments to incorporate information from the final rule which we incorporated into the report, as appropriate. However, we were not able to obtain stakeholder and other views on the final Tier 3 rule for this report. See appendix IV for EPA's letter.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time we will send copies to the appropriate congressional committees and to the Secretaries of Energy and Transportation and the Administrator of the EPA. In addition, the report will be available at no charge on the GAO website at http://www.gao.gov.

If you or your staff members have any questions about this report, please contact me at (202) 512-3841 or ruscof@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix V.

Frank Rusco

Frank Rusco
Director, Natural Resources and Environment

Appendix I: Scope and Methodology

This report provides information on the domestic petroleum refining industry and its market and regulatory environment. Specifically, it addresses what is known about (1) major changes—including key environmental regulations—that have recently affected the domestic petroleum refining industry and (2) major factors that may affect the future of the domestic petroleum refining industry—including its production, profitability, and competitiveness in foreign markets.

To provide information on major changes that have affected the domestic petroleum refining industry and the future of the industry, we reviewed information including the following:

- studies by federal agencies and consultants,
- company financial regulatory filings, and
- proposed and final regulations and regulatory impact analyses.

To identify studies and other literature, we conducted searches of various databases, such as ProQuest and PolicyFile, for studies since published 2009. We also asked agency officials and other stakeholders we contacted to recommend studies.

Based on our research and information from stakeholders, we identified five key regulations that were recently strengthened or proposed: (1) the Environmental Protection Agency's (EPA) Renewable Fuels Standard regulations, (2) the Department of Transportation's Corporate Average Fuel Economy and EPA's greenhouse gas vehicle emission standards; (3) EPA's Tier 3 Motor Vehicle Emission and Fuel Standards; (4) EPA's stationary source greenhouse gas requirements; and (5) the state of California's Low Carbon Fuel Standard. We reviewed agency regulatory impact assessments and industry and other studies on the effect of these regulations on industry. Other regulations may also affect the industry.

We also summarized the results of semistructured interviews with a nonprobability sample of 32 stakeholders. (See app. II for a list of these stakeholders.) Stakeholders included representatives from refining companies, environmental organizations, consultants, and officials from federal and state agencies. We also visited several refineries of selected refining companies. We selected these stakeholders to represent broad and differing perspectives on these issues based on recommendations from agencies and industry associations, along with other information. For example, to select refiners, we considered, among other factors, the size

and location of their refineries, and whether they were vertically integrated or merchant refiners. When possible, we used a standard set of questions in interviewing stakeholders, including questions about the effect of the key regulations we reviewed. However, as needed, we also sought perspectives on additional questions tailored to these stakeholders' expertise and sought opinions from stakeholders on key issues, such as their views on the potential effects of exports on industry. Because we used a nonprobability sample, the views of these stakeholders are not generalizable to all potential stakeholders, but they provide illustrative examples of the range of views. Similarly, the conditions at the refineries we visited are not generalizable to all refineries. The stakeholder views we summarize were not necessarily supported by all types of stakeholders, though we identify differing views where appropriate. Stakeholders and information we reviewed identified a number of changes that have affected the industry and a number of factors that may affect its future, and we report on those that were most often cited.

To illustrate major changes over time and to describe the domestic petroleum refining industry, we summarized historical data from the Energy Information Administration (EIA) regarding such issues as capacity and location of refineries, crude oil production, and consumption of petroleum products. To assess the reliability of EIA data, we took several steps including reviewing documentation, interviewing EIA staff, and consulting with stakeholders. We determined the EIA data to be sufficiently reliable for the purposes of this report.

To provide information about the future of the domestic petroleum refining industry and major factors that could affect it, we also reviewed forecasts from EIA, the International Energy Agency (IEA), and IHS, and summarized projections through 2020 under different scenarios.[1] We selected these forecasts because they made projections through 2020, contained information broadly relevant to our report, covered multiple scenarios or offered a counterpoint scenario, and contained well-documented discussions of methodologies used and assumptions made.

[1]Department of Energy, Energy Information Administration, *Annual Energy Outlook 2013 with Projections to 2040*, DOE/EIA-0383(2013) (Washington, D.C.: April 2013); Department of Energy, Energy Information Administration, *Annual Energy Outlook 2014 with Projections to 2040, Early Release*, DOE/EIA-0383ER(2014) (Washington, D.C.: December 2013); International Energy Agency, *World Energy Outlook 2013* (Paris, France: November 2013); IHS, *US Energy Outlook 2013* (Englewood, CO: November 2013).

While forecasts are subject to inherent uncertainties, we found these forecasts to be reasonable for describing a range of views about potential conditions of the domestic refining industry and major factors that will help determine these conditions. We reviewed and compiled data from relevant scenarios and compared them where appropriate. Specifically, we reviewed all 27 scenarios in EIA's 2013 forecast, the reference scenario in EIA's 2014 initial forecast,[2] and IHS's forecast, and, in particular, highlight the scenarios representing the highest and lowest projection of gasoline, diesel, and jet fuel consumption; petroleum product exports; and crude oil production.[3] We identified some differences in the metrics reported in the four forecasts and did not make direct comparisons in these instances.

We conducted this performance audit from November 2012 to March 2014 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

[2]EIA's 2014 Annual Energy Outlook Early Release contains reference scenario projections only. Other scenarios were not available at the time of this report's publication.

[3]We highlight the following scenarios in the report: reference (2014), low or no net imports, high net imports, high economic growth, low oil and gas resource, greenhouse gas $25 and low gas prices, and greenhouse gas $10 and low gas prices.

Appendix II: List of Stakeholders

Federal Agencies	1. Department of Energy[1] 2. Department of Transportation 3. Environmental Protection Agency
Refiners	4. Chevron 5. CVR Refining 6. HollyFrontier Corporation 7. Marathon Petroleum Corporation 8. Monroe Energy 9. PBF Energy 10. Philadelphia Energy Solutions 11. Phillips 66 12. Shell 13. Tesoro Corporation 14. Valero Energy Corporation
Other	15. American Fuel and Petrochemical Manufacturers 16. American Petroleum Institute 17. Baker & O'Brien Incorporated 18. Prof. Severin Borenstein, University of California Energy Institute 19. California Air Resource Board 20. California Energy Commission 21. Citigroup Global Markets Inc. 22. Energy Policy Research Foundation (EPRINC) 23. Environmental Integrity Project 24. IHS 25. Prof. Christopher Knittel, Massachusetts Institute of Technology

[1]We also obtained views from officials at the Energy Information Administration within the Department of Energy.

26. Prof. Erich Muehlegger, Harvard Kennedy School
27. Muse Stancil
28. National Association of Clean Air Agencies
29. Natural Resources Defense Council
30. Sierra Club
31. Stillwater Associates
32. Turner, Mason & Company

Appendix III: Further Information Regarding the Renewable Fuel Standard, Compliance Credits, and the Blend Wall

To demonstrate compliance with the Environmental Protection Agency's (EPA) annual blending requirements under the Renewable Fuel Standard (RFS), refiners use renewable identification numbers (RIN), which we refer to in this report as credits. A RIN is a unique 38-character code that renewable fuel producers and importers assign to each gallon of renewable fuel produced or imported. To demonstrate compliance with the RFS, refiners and importers must provide sufficient RINs for the volume of gasoline and diesel they produce for use in the contiguous United States and Hawaii. For example, to comply with the 2013 total renewable fuels standard requiring that renewable fuels compose at least 9.74 percent of gasoline and diesel, a refiner selling 100 million gallons of gasoline would have to provide 9.74 million total RINs to EPA. Refiners can obtain RINs by purchasing and blending renewable fuels themselves, or they can purchase RINs from renewable fuel producers, importers, blenders, other refiners, or other RIN-holding entities. RINs are valid for the calendar year in which they were generated, and up to 20 percent of a year's standard can be met with RINs from the previous year. Refiners and other obligated parties with more RINs than needed to meet the year's blending standard can hold them for use in the following year or sell them to another party that needs additional RINs to comply with the blending standard.

Prices for RINs reflect the cost of renewable fuels compared with the petroleum fuels they displace, the stringency of annual blending percentage standards, and other factors, and have varied over time. According to the Energy Information Administration (EIA), between 2006 and much of 2012, corn-based ethanol RIN prices were low—between $0.01 and $0.05 per gallon—because it was generally economical to blend up to or above the level required by the RFS. However, RIN prices for corn-based ethanol increased to over $1.40 per gallon in July 2013. Several stakeholders told us this increase in RIN prices was primarily due to RFS requirements exceeding the capability of the transportation fuel infrastructure to distribute and the fleet of vehicles to use renewable fuels, referred to as the "blend wall." EPA officials told us that high corn prices, which made ethanol more expensive relative to gasoline, also contributed to higher RIN prices during this period. These RIN prices have since come down to about $0.20 per gallon as of mid-November 2013. A refiner attributed this decline to EPA's statements expressing its desire to address the blend wall.

The blend wall exists because blending more than 10 percent ethanol with gasoline (called E10) is affected by constraints such as the limited availability of vehicles that can use higher ethanol blends.[1] In addition, higher ethanol blends are less widely available than E10 and must be priced at a discount to encourage greater consumption, according to EIA. EPA officials recently said the blend wall would be reached in 2014 when about 13.2 billion gallons of E10 could be consumed.[2] Blending additional renewable fuels can be difficult and costly once the blend wall is reached because significant volumes of non-ethanol renewable fuels must be available, consumers must be encouraged to purchase additional higher blends of ethanol, and other market participants must develop the infrastructure to deliver those fuels.

Compliance with the RFS has recently increased costs for some refiners, according to information we reviewed and several stakeholders we contacted. While the RFS applies to all refiners in the same way, effects of rising or falling RIN prices may vary depending on each refiner's situation. For example, those refiners that have incorporated renewable fuel blending into their operations may have benefited from the rising prices relative to those refiners that are less well positioned. According to several stakeholders, RFS compliance has been most difficult for refiners with less of a retail presence, known as merchant refiners, because they do not blend their own fuel and must purchase RINs from others, increasing their cost of compliance. On the other hand, some industry participants may be relatively advantaged when the price of RINs rises. For example, an ExxonMobil official said that RIN costs did not have a significant impact on the company's financial performance during the second quarter of 2013 because ExxonMobil meets the majority of its obligation by blending its renewable fuels itself.

EPA officials told us, however, that the RFS program affects all refiners equally because obligations are the same regardless of whether refiners blend renewable fuels themselves or purchase RINs. In particular, EPA stated that refiners experience the same costs. If a company generates

[1]We have previously reported on various aspects of the blend wall and other challenges to the increased use of renewable fuels. See GAO-11-513 and GAO-09-446.

[2]The RFS requirements are "nested" in that renewable fuels other than ethanol could be used to meet the total renewable fuels requirement.

its own RINs, there is a cost associated with doing so, namely the cost for the renewable fuel compared to the petroleum fuel it displaces.

Appendix IV: Comments from the Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR - 5 2014

OFFICE OF
AIR AND RADIATION

Mr. Frank Rusco
Director
Natural Resources and Environment
U.S. Government Accountability Office
Washington, DC 20548

Dear Mr. Rusco:

Thank you for the opportunity to review and comment on GAO's draft report "Petroleum Refining: Industry's Outlook Depends on Market Changes and Key Environmental Regulations." As stated in the draft report, GAO's objectives were to examine: (1) major changes—including key environmental regulations—that have recently affected the domestic petroleum refining industry; and (2) major factors that may affect the future of the domestic petroleum refining industry—including its production, profitability, and competitiveness in foreign markets.

I am responding on behalf of the EPA, as the primary office which participated in this review is the EPA's Office of Air and Radiation. The EPA generally agrees with the report's two recommendations and findings. Below, I am providing an overview of three important clarifications on the technical findings, as well as our response to the report's recommendations. Under separate cover, I have asked staff to submit suggested modifications to the technical findings in the draft report that might provide more clarity and completeness.

RFS Compliance Costs

The report states that "…compliance costs have increased recently for some refiners…" and "according to several stakeholders, RFS compliance has been most difficult for refiners with less of a retail presence, known as merchant refiners, because they do not blend their own fuel and must purchase RINs from others, increasing their cost of compliance."

In response to the report, we assert that obligated parties under the Renewable Fuel Standard (RFS) program are experiencing the same compliance costs regardless of whether the refiner is "fully integrated," with blending capabilities, or is a "merchant" refiner that is purchasing RINs (Renewable Identification Numbers- tradable credits used for demonstrating compliance with the program). The cost of the RIN to the obligated party is equivalent to the cost of blending the renewable fuel itself. In other words, obligated parties have the choice to blend the renewable fuel themselves or essentially pay another party to blend the fuel by purchasing a RIN from them. If a company generates its own RINs, there is a cost associated with doing so, namely, the cost for the renewable fuel compared to the petroleum it displaces. Omitting this information from the report is potentially misleading.

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Impact of the EPA promulgating RFS annual standards later than the statutory deadlines

The report states that "The RFS compliance period is set by statute, so delays do not change refiners' compliance dates."

In response to the report, we note that while the statute does include deadlines for the EPA to establish annual applicable volumes under the RFS program, the compliance deadline for obligated parties under the RFS program is not set in the Clean Air Act, but rather through the implementing regulations (see 40 CFR 80.1451). For example, the EPA extended the compliance deadline for the 2013 compliance year to June 30, 2014, to provide additional compliance time, and allow parties to take their 2014 obligations into consideration as they determined compliance with the 2013 standards.

Tier 3 Standards

The EPA issued the Tier 3 final rulemaking on March 3, 2014. While the final Tier 3 program is very similar to what we proposed, we made some changes to the final rule based on public input and updated analyses. In the attached comments and edits to the draft report, we have updated the report's findings to incorporate information from the final rule.

GAO Recommendations

To improve the EPA's ability to meet the annual statutory deadline for issuing annual RFS standards, GAO recommended that the Administrator of the EPA take the following two actions:

1) Assess past experience to identify the underlying causes of delays in issuing annual RFS standards.
2) Develop and implement a plan to address the causes of delays and help ensure RFS annual standards are issued on time.

EPA Response

The EPA generally agrees with GAO's recommendations. We agree that identifying the cause of delays and developing and implementing a plan to address the delays may help to ensure that the annual RFS volume standards are issued on time. The EPA strives to issue the RFS standards according to the statutory deadlines, and we are continually seeking the best approaches to achieve that goal.

As GAO is aware, the Agency has a comprehensive process, known as the *Action Development Process* (ADP), for developing regulations. To monitor progress and ensure quality, the ADP employs numerous development milestones during the preparation of proposed and final regulations. The ADP is utilized internally by management to ensure that projected milestones are achieved, and some of the milestones are also made available to the public on the EPA's website (http://yosemite.epa.gov/opei/RuleGate.nsf/). As we respond to GAO's recommendations and try to reduce the delay in issuing the annual standards, the EPA will consider whether the ADP milestones are being utilized and managed appropriately.

As GAO states, the RFS touches a range of complex environmental, energy, and agricultural issues, and the need for interagency review and public comment adds to the timelines for issuing such standards.

The EPA is currently considering how to improve our internal regulatory review processes in order to meet established deadlines. The first step in this process will be to identify the causes of delays, and then develop a corrective plan to address them. The EPA will also be engaging our interagency partners, including OMB, during the course of this process to identify any areas that could be streamlined for a more efficient and timely review.

Thank you again for the opportunity to review and respond to the draft report. If you have any questions or require further information, please contact Venu Ghanta at (202) 564-1374.

Sincerely,

Janet G. McCabe
Acting Assistant Administrator

Enclosure
1. EPA edits and comments to GAO's draft report

Appendix V: GAO Contact and Staff Acknowledgments

GAO Contact

Frank Rusco, (202) 512-3841 or ruscof@gao.gov

Staff Acknowledgments

In addition to the individual named above, Christine Kehr (Assistant Director), Elizabeth Beardsley, Catherine Bombico, Keya Chateauneuf, Nirmal Chaudhary, Quindi Franco, Cindy Gilbert, Katharine Kairys, Michael Kendix, Armetha Liles, and Alison O'Neill made key contributions to this report.

Related GAO Products

Oil and Gas: Information on Shale Resources, Development, and Environmental and Public Health Risks. GAO-12-732. Washington, D.C.: September 5, 2012.

Biofuels: Challenges to the Transportation, Sale, and Use of Intermediate Ethanol Blends. GAO-11-513. Washington, D.C.: June 3, 2011.

Vehicle Fuel Economy: NHTSA and EPA's Partnership for Setting Fuel Economy and Greenhouse Gas Emissions Standards Improved Analysis and Should Be Maintained. GAO-10-336. Washington, D.C.: February 25, 2010.

Energy-Water Nexus: Many Uncertainties Remain about National and Regional Effects of Increased Biofuel Production on Water Resources. GAO-10-116. Washington, D.C.: November 30, 2009.

Energy Markets: Estimates of the Effects of Mergers and Market Concentration on Wholesale Gasoline Prices. GAO-09-659. Washington, D.C.: June 12, 2009.

Biofuels: Potential Effects and Challenges of Required Increases in Production and Use. GAO-09-446. Washington, D.C.: August 25, 2009.

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[ORAL ARGUMENT SCHEDULED FOR APRIL 7, 2014]
Nos. 13-1265, 13-1267 & 13-1268

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

MONROE ENERGY, LLC, ET AL.,
Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY,
Respondent.

PETITIONS FOR REVIEW OF FINAL ACTION
OF THE ENVIRONMENTAL PROTECTION AGENCY

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TABLE OF CONTENTS

Page(s)

TABLE OF CONTENTS i

TABLE OF AUTHORITIES ii

GLOSSARY iv

STATUTES AND REGULATIONS iv

INTRODUCTION 1

SUMMARY OF ARGUMENT 2

ARGUMENT 5

I. EPA'S WAIVER AUTHORITY IS NOT AT ISSUE. 5

II. EPA ARBITRARILY AND WITHOUT NOTICE INCREASED THE RFS DURING THE COMPLIANCE YEAR. 6

A. EPA Arbitrarily Switched EIA Transportation Fuel Estimates. 6

B. EPA's Increase Of The RFS Due To The Small Refinery Exemption Is Arbitrary 12

III. EPA'S 2013 CELLULOSIC BIOFUEL VOLUME REQUIREMENT IS ARBITRARY AND CAPRICIOUS. 13

CONCLUSION 17

CERTIFICATE OF COMPLIANCE 18

CERTIFICATE OF SERVICE 19

TABLE OF AUTHORITIES*

Page(s)

Cases

**API v. EPA*,
706 F.3d 474 (D.C. Cir. 2013) 1, 10

**Envtl. Integrity Project v. EPA*,
425 F.3d 992 (D.C. Cir. 2005) 8, 9

Esch v. Yeutter,
876 F.2d 976 (D.C. Cir. 1989) 8

Hunt v. Washington State Apple Adver. Comm'n,
432 U.S. 333 (1977) 1

Lujan v. Defenders of Wildlife,
504 U.S. 555 (1992) 1

**Motor Vehicle Mfrs. Ass'n of the United States, Inc. v. State Farm Mut. Auto. Ins. Co.*,
463 U.S. 29 (1983) 12, 16

Nat'l Petrochem. & Refiners Ass'n v. EPA,
630 F.3d 145 (D.C. Cir. 2010) 6

Shell Oil Co. v. EPA,
950 F.2d 741 (D.C. Cir. 1992) 3, 9

Sierra Club v. EPA,
292 F.3d 895 (D.C. Cir. 2002) 1

Solite Corp. v. EPA,
952 F.2d 473 (D.C. Cir. 1991) 8

United States v. Students Challenging Regulatory Agency Procedures,
412 U.S. 669 (1973) 2

* Authorities upon which we chiefly rely are marked with asterisks.

Whitehouse v. Illinois Cent. R.R.,
349 U.S. 366 (1955) 5

Yellow Taxi Co. v. NLRB,
721 F.2d 366 (D.C. Cir. 1983) 7

Statutes

42 U.S.C. § 7545(o)(2)(A)(i) 12

42 U.S.C. § 7545(o)(3)(A) 10

42 U.S.C. § 7545(o)(3)(B)(i) 2, 10

Regulations

40 C.F.R. § 80.1406 2

40 C.F.R. § 80.1426(c)(3). 15

2014 Standards for the Renewable Fuel Standard Program; Proposed Rule, 78 Fed. Reg. 71,732 (Nov. 29, 2013) 5, 6

Other Authorities

AFPM/API Comments on 2014 RFS Proposed Rule, EPA-HQ-OAR-2013-0479-5293 (Jan. 28, 2014) 6

Press Release, KiOR, KiOR to Announce Second Quarter Financial Results on August 8, 2013 (July 11, 2013), http://investor.kior.com/releases.cfm Final, Roll Call (Aug. 8, 2013) 16, 17

Q2 2013 KiOR Inc., Earnings Conference Call - Final, Roll Call, at 4 (Aug. 8, 2013) 16

Respondent EPA's Unopposed Motion to Sever Certain Issues and Hold Them in Abeyance Pending Administrative Reconsideration, Doc. #1478306, Feb. 2, 2014 ..... 11, 13

GLOSSARY

AFPM	American Fuel & Petrochemical Manufacturers
API	American Petroleum Institute
EIA	Energy Information Administration
EPA	Environmental Protection Agency
RFS	Renewable Fuel Standard
RIN	Renewable Identification Number

STATUTES AND REGULATIONS

All applicable statutes and regulations are contained in the Opening Brief for API and AFPM.

INTRODUCTION

EPA's brief is virtually silent on a critical issue: To provide obligated parties with regulatory certainty and the ability to plan for compliance, Congress established *mandatory* deadlines of October 31, 2012 (for the Energy Information Administration ("EIA") estimate of 2013 fuel production and consumption) and November 30, 2012 (for EPA's final 2013 renewable fuel standards ("RFS") rule). EPA missed the mandatory November 30 deadline by more than *eight months*. It then compounded the injury to obligated parties by *increasing* their regulatory burden—without notice or an opportunity for comment—based on an unprecedented departure from EIA's October 2012 estimate of transportation fuel consumption. Moreover, despite this Court's recent admonition to EPA that it must "aim at accuracy," *API v. EPA*, 706 F.3d 474, 476 (D.C. Cir. 2013), EPA again adopted an unrealistic cellulosic biofuel requirement that penalizes obligated parties because cellulosic biofuel producers cannot meet EPA's unreasonable projections. For these reasons, EPA's rule is arbitrary and capricious.[1]

[1] Intervenors incorrectly suggest (in passing in a footnote) that API and AFPM suffered no "injury in fact," and therefore lack standing. Resp.-Int. Br. 12 n.10. API and AFPM have associational standing on behalf of their members, who plainly are injured by EPA's action. *See Hunt v. Washington State Apple Adver. Comm'n*, 432 U.S. 333, 343 (1977); API/AFPM Br. 13. Where "the complainant is 'an object of the action . . . at issue' . . . there should be 'little question that the action or inaction has caused him injury." *Sierra Club v. EPA*, 292 F.3d 895, 900 (D.C. Cir. 2002) (quoting *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561-62 (1992)). As obligated parties under the RFS program, the members of API and (continued...)

Finally, this Court should not decide here whether and how EPA can exercise its statutory authority to waive renewable fuel requirements in response to the "blendwall." This case does not present that issue, which EPA is currently considering in a separate notice-and-comment rulemaking.

SUMMARY OF ARGUMENT

1. The scope of EPA's authority to waive renewable fuel requirements in response to the "blendwall" is not at issue here. The scope of EPA's waiver authority regarding the blendwall is vitally important to the *2014* RFS, which EPA is currently considering. Accordingly, the Court should not address the issue here. Moreover, Intervenors' arguments concerning EPA's waiver authority are incorrect for the reasons set out in EPA's 2014 proposed rule and the AFPM/API comments on the proposed rule.

AFPM are the "object of the action." *See* 42 U.S.C. § 7545(o)(3)(B)(i); 40 C.F.R. § 80.1406.

Intervenors suggest that obligated parties suffered no injury because "the final percentages increased . . . due to *reduced* gasoline and diesel production estimates." Resp.-Int. Br. 12 n.10. But as Intervenors and EPA recognize, this reduction *increased* the final RFS above the percentages in the proposed rule. *See id.* at 27; EPA Br. 44. That increase injures API and AFPM members by increasing their regulatory burden. Moreover, an individual obligated party's obligations are *not* "the same or negligibly different" after the RFS increase. Resp.-Int. Br. 12 n.10. No matter what quantity of fuel an individual obligated party produced or imported in 2013, the effect of EPA's action is to require that a higher percentage of the total must be renewable fuel (or offset by the purchase of RINs). *See infra* at 11-13. The increased regulatory burden results in economic injury that far exceeds the "identifiable trifle" required for standing. *See United States v. Students Challenging Regulatory Agency Procedures*, 412 U.S. 669, 689 n.14 (1973).

2. EPA's decision to increase the RFS during the compliance year was arbitrary and capricious.

a. EPA arbitrarily and without notice switched EIA estimates of transportation fuel consumption. The proposed rule provided no notice of EPA's intention to switch EIA estimates, and an edit to the proposed rule specifically indicated that EPA did *not* intend to switch estimates. EPA cannot rely on precedents that allow use of supplementary data in the final rule because it did not supplement, but instead entirely replaced, the October 2012 EIA estimate and thereby prejudiced obligated parties. No commenter suggested that EPA switch to a new, mid-compliance year EIA estimate, and moreoever EPA may not "bootstrap notice from a comment." *Shell Oil Co. v. EPA*, 950 F.2d 741, 760 (D.C. Cir. 1992) (internal quotation marks omitted). EPA's failure to give notice harmed obligated parties that must pay millions of dollars to comply with EPA's mandates. API and AFPM's brief identified arguments they would have made had EPA given notice and permitted comments.

b. EPA arbitrarily granted a small refinery exemption and reallocated the exempt refiner's obligations to other obligated parties. Taking such an action during the compliance year defeats the certainty Congress intended for obligated parties. The effects of the reallocation are not *de minimis*, and interested parties had no notice that any exemption petitions were pending.

3. EPA recently granted reconsideration on the 2013 cellulosic biofuel RFS and asked this Court to stay its consideration of this issue. If the Court considers this issue, it should vacate the cellulosic biofuel RFS.

EPA used a 6-month straight-line ramp up projection for KiOR beginning in March 2013, but ignored that KiOR produced no cellulosic biofuel renewable identification numbers ("RINs") at all in April or May. EPA gives no explanation for using a new "benchmark" and "methodology" for projecting production in the final rule; instead, its brief disclaims reliance on the benchmark that its final rule called one of the "more significant changes." JA800. EPA fails to justify its continued reliance on a May 2013 projection from KiOR, and implausibly suggests that its own EMTS data are inaccurate because they track only fuel that generates RINs, not fuel kept in storage. Most importantly, EPA provides no explanation for why it relied on updated information for one cellulosic producer that supported a higher projection, but ignored information for KiOR that required a lower projection.

ARGUMENT

I. EPA'S WAIVER AUTHORITY IS NOT AT ISSUE.

Before addressing the issues that this case presents, it is important to identify a critical issue that is *not* presented and should not be decided in this proceeding: EPA's authority to grant waivers to address the renewable fuel "blendwall." As Respondent-Intervenors acknowledge, EPA's waiver authority is not at issue here. *See* Resp.-Int. Br. 10, 29-31. Respondent-Intervenors (but not EPA) nevertheless set forth their preferred concept of the "blendwall" and interpretation of limitations on EPA's waiver authority, presumably hoping that the Court will decide these issues. *See id.* 29-44.

In this case, it is particularly important for the Court to "observe the wise limitations on [its] function" by "deciding only what is necessary to the disposition of the immediate case." *Whitehouse v. Illinois Cent. R.R.*, 349 U.S. 366, 372-73 (1955). The scope of EPA's RFS waiver authority and the extent to which EPA can consider blendwall concerns are vitally important issues that are currently pending before EPA in connection with the final 2014 RFS, on which EPA has not taken final action. *See* 2014 Standards for the Renewable Fuel Standard Program; Proposed Rule, 78 Fed. Reg. 71,732, 71,754-79 (Nov. 29, 2013). In the 2014 proposed rule, EPA interpreted its waiver authority very differently from Intervenors and solicited comment on its position. As explained in the proposed

rule (and comments by API, AFPM, and others), the stakes for 2014 are extremely high. A decision of this Court restricting EPA's ability to deal with the blendwall could have dire consequences for the national economy. *See* AFPM/API Comments on 2014 RFS Proposed Rule, EPA-HQ-OAR-2013-0479-5293 (Jan. 28, 2014), at 15-18.

Accordingly, API and AFPM urge the Court to reject Intervenors' invitation to pass on critical issues that are not fully briefed, remain pending before EPA, and are unnecessary to the decision of this case. If the Court addresses these issues, however, it should reject Intervenors' arguments, largely for the reasons set out in EPA's proposed rule for 2014 and AFPM/API's joint comments on the 2014 proposed rule. 78 Fed. Reg. at 71,732, 71,754-79; AFPM/API Comments on 2014 RFS Proposed Rule at 4-19.

II. EPA ARBITRARILY AND WITHOUT NOTICE INCREASED THE RFS DURING THE COMPLIANCE YEAR.

A. EPA Arbitrarily Switched EIA Transportation Fuel Estimates.

EPA acknowledges that it increased the 2013 RFS for each obligated party more than halfway through the compliance year by replacing EIA's October 2012 estimate of transportation fuel consumption with a May 2013 estimate.[2] *See* EPA

[2] Although *National Petrochemical & Refiners Ass'n v. EPA*, 630 F.3d 145 (D.C. Cir. 2010), held that EPA does not lose authority to act upon missing the November 30 deadline, that decision does not give EPA *carte blanche* to ignore the deadline and take actions that exacerbate the impact of its tardiness.

Br. 44; *see also* Resp.-Int. Br. 27. EPA contends that it was reasonable to use the later estimate and that it provided notice of its intention to do so. EPA errs on both counts.

1. Contrary to EPA's assertion (at 42, 46), the proposed rule did not provide notice of EPA's intent to switch EIA estimates. The portions of the proposed rule that EPA cites dealt exclusively with the *cellulosic biofuel* RFS. They do not even hint that EPA might switch EIA estimates of total gasoline and diesel ("transportation fuel") consumption, something the agency had never done before. *See* EPA Br. 42 (citing 78 Fed. Reg. at 9293-94, 9295). EPA's discussion of cellulosic biofuel did not provide notice that EPA intended to use a different estimate for different fuels discussed in different sections of the proposed rule.

EPA's argument is particularly unconvincing because a draft of the proposed rule, which was posted to the rulemaking docket during the comment period, *deleted* a statement that EPA planned to use an updated EIA transportation fuel projection. *See* API/AFPM Opening Br. 18.[3] The absence of any reference in the

[3] EPA does not address this document except to assert that the Court must ignore it because it is not part of the administrative record. *See* EPA Br. 46 n.24. This Court is not so limited. API and AFPM are not seeking to supplement the record, and thus the authorities EPA cites are inapposite. Instead, API and AFPM cite the draft proposed rule to show that obligated parties lacked notice of EPA's intentions. The Court may take judicial notice of an official government document placed in an official rulemaking docket by EPA. *See Yellow Taxi Co. v. NLRB*, 721 F.2d 366, 375 n.29 (D.C. Cir. 1983). EPA does not question the accuracy or authenticity of the document; nor has it denied that the document was made public on February 7, 2013. EPA's argument, if accepted, would allow the agency to (continued...)

proposed rule to an updated EIA estimate of total transportation fuel, coupled with this specific deletion, demonstrates that EPA failed to provide notice of its intention. A final rule is not a "logical outgrowth" of a proposed rule where "interested parties would have had to 'divine [the agency's] unspoken thoughts.'" *Envtl. Integrity Project v. EPA*, 425 F.3d 992, 996 (D.C. Cir. 2005) (alteration in original) (internal quotation marks omitted).[4]

EPA's reliance on precedents allowing use of supplementary data unavailable during the comment period is misplaced. *See* EPA Br. 46 (quoting *Solite Corp. v. EPA*, 952 F.2d 473, 484 (D.C. Cir. 1991)). The May 2013 EIA estimate did not simply "confirm[] information contained in the proposed rulemaking." *Solite Corp.*, 952 F.2d at 484. Instead, the most critical element of the challenged rule—the RFS—changed due to EPA's reliance on the May 2013 EIA estimate. Moreover, *Solite* permits agencies to use "supplementary data" only "*so long as no prejudice is shown*." *Id.* (emphasis added). Here, as EPA concedes, switching the EIA estimate prejudiced obligated parties because it "had the effect

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mislead the public about its intentions through speeches, official letters, and other statements provided they do not find their way into the administrative record. That is not the law. *See generally Esch v. Yeutter*, 876 F.2d 976, 991 (D.C. Cir. 1989) (when "the procedural validity of the [agency's] action . . . remains in serious question," the Court has the authority to consider extra-record evidence in particular circumstances).

[4] Nor is a final rule the "logical outgrowth" of a proposed rule simply because EPA used the same formula for calculating the RFS. Resp.-Int. Br. 26-27. Changing the inputs into the formula (the EIA transportation fuel estimate) alters the output (the RFS). Doing so arbitrarily and without notice is not a "logical outgrowth" of the proposed rule.

of *increasing* the 2013 renewable fuel *percentage* requirements for each obligated party." EPA Br. 44.

2. EPA's assertion that comments urging EPA to use updated cellulosic biofuel data effectively advocated the use of an updated EIA transportation fuel estimate fails for two reasons. *See* EPA Br. 43.

First, an agency "cannot bootstrap notice from a comment." *Shell Oil Co.*, 950 F.2d at 760 (internal quotation marks omitted); *see also Envtl. Integrity Project*, 425 F.3d at 997. Thus, even if commenters had advocated using an updated, mid-compliance year EIA transportation fuel estimate (which they did not), EPA could not bootstrap notice from such comments.

Second, no commenter addressed EPA's use of a new, mid-compliance year EIA transportation fuel estimate because no party could have anticipated the switch. EPA had never before switched EIA estimates, and the proposed rule gave no notice of that possibility.[5] Comments asking EPA to consider updated *cellulosic biofuel* data did not suggest switching the transportation fuel estimate. EPA admits as much, contending only that it followed commenters' "*logic* . . . by also using EIA's revised projections of total gasoline and diesel fuel." EPA Br. 46-47 (emphasis in original); *see also* Resp.-Int. Br. 28. Importantly, the final rule

[5] Petitioners did not waive this issue by not commenting because no one had notice of that possibility until publication of the final rule.

does not cite comments as the reason for the EIA transportation fuel estimate switch; it gives no reason at all. JA795, 822.

Switching transportation fuel estimates does not follow "logically" from API and AFPM's suggestion to use updated cellulosic biofuel data. EPA has never before deviated from EIA's October transportation fuel consumption forecasts, and to the best of petitioners' knowledge, no party has ever complained about the accuracy of such forecasts. In contrast, EIA and EPA have repeatedly and egregiously overestimated cellulosic biofuel production, leading to numerous complaints from obligated parties and this Court's recent admonition that EPA must "aim at accuracy" in its cellulosic biofuel projection. *API*, 706 F.3d at 476.

3. Nor did EPA "supplement" the October 2012 EIA estimate, *see* EPA Br. 45; EPA replaced it with a new estimate. Congress instructed EPA to determine the RFS "based on the estimate provided under subparagraph (A)," *i.e.*, the estimate that EIA provides by October 31 each year. 42 U.S.C. § 7545(o)(3)(A)-(B)(i). EPA calculated the proposed RFS using EIA's October estimate, JA20, but in the final rule, EPA made the calculations using the May 2013 EIA estimate, JA795. Although the Clean Air Act does not require "slavish adherence" to EIA's October estimate, *see API*, 706 F.3d at 478, EPA cannot rely on information generated nearly halfway through a compliance year and not disclosed to the public until issuance of the final rule.

4. EPA's failure to give notice was not "harmless," and the difference in compliance burdens for obligated parties was not "minor." *See* EPA Br. 47-48; *see also* Resp.-Int. Br. 28 n.16. EIA's reduction amounted to 1.533 *billion* gallons of transportation fuel. API/AFPM Br. 16. EPA's increase of the total renewable fuel RFS from 9.63% to 9.74%, JA20, 795, would require a refiner who produces 1 billion gallons of transportation fuel per year to acquire an additional *1.1 million gallons* of renewable fuel in 2013.[6] These are not minor changes for those who must pay millions of dollars in increased costs to comply. *See* Attach. 2 to Respondent EPA's Unopposed Motion to Sever Certain Issues and Hold Them in Abeyance Pending Administrative Reconsideration, Doc. #1478306, at 3, Feb. 2, 2014 ("EPA Motion to Stay"); API/AFPM Br. 21.

EPA also incorrectly asserts (at 48) that API and AFPM have not identified any additional comments they might have made that could have led to a different outcome. *See* API/AFPM Br. 14-15. Had interested parties been given notice and an opportunity to comment, they could have explained—as they have in their briefs—the importance of regulatory certainty, the effect on compliance planning of a decision to increase compliance obligations deep into the compliance year, the hardships such a change creates, and why extending the compliance date does not

[6] (1 billion gallons of transportation fuel x 9.74%) - (1 billion gallons of transportation fuel x 9.63%) = 1.1 million gallons of additional renewable fuel.

remedy those hardships. *See* API/AFPM Br. 1-2, 15-19, 21 n.14. EPA cannot deflect claims of procedural violations through conclusory assertions that public comments would not have made a difference.[7]

B. EPA's Increase Of The RFS Due To The Small Refinery Exemption Is Arbitrary.

EPA's reallocation of the exempted small refiner's obligations onto obligated parties during the compliance year was arbitrary and capricious. EPA failed to "articulate . . . a rational connection," *State Farm*, 463 U.S. at 43 (internal quotation marks omitted), between reallocation of the obligations and its statements that the RFS program "is best interpreted to require issuance of a single annual standard in November," JA822. Granting an exemption and reallocating the exempt refiners' obligations *during the compliance year* defeats the certainty Congress intended for obligated parties. API/AFPM Br. 20-21.

The effects of EPA's action are not "*de minimis*." The reallocation of the exempt small refiner's obligations to other obligated parties increased the total renewable fuel RFS from 9.73% to 9.74%. EPA Br. 52. For an obligated party

[7] Respondent-Intervenors assert that, if EPA had not changed the RFS based on the May 2013 EIA estimate, the standards would not have "ensured at least the required volumes" in the statute. *See* Resp.-Int. Br. 29 (quoting 42 U.S.C. § 7545(o)(2)(A)(i)). EPA has not made such adjustments in the past, and it never sought to justify the increased 2013 RFS on this ground. *See Motor Vehicle Mfrs. Ass'n of the United States, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 50 (1983).

that produces 1 billion gallons of transportation fuel, this requires acquiring additional RINs equivalent to *100,000* gallons of renewable fuel.

EPA also errs in claiming that API and AFPM waived their challenge on the small refinery issue. The proposed rule indicated that EPA had not granted any small refinery exemptions and did not suggest that any exemption petitions were pending. JA37.

III. EPA'S 2013 CELLULOSIC BIOFUEL VOLUME REQUIREMENT IS ARBITRARY AND CAPRICIOUS.

After petitioners filed their opening briefs, EPA granted the petitions of API and AFPM for reconsideration of the 2013 cellulosic biofuel requirement. EPA Br. Attachs. 1 & 2 (Letters from Administrator Gina McCarthy to API and AFPM dated Jan. 23, 2014). EPA acknowledged that, even before the 2013 rule was published in the *Federal Register*, a cellulosic biofuel company (KiOR) significantly reduced its estimated production for 2013, *id.*, thereby making EPA's 2013 cellulosic biofuel volume requirement effectively unattainable. EPA has filed a motion to stay the cellulosic biofuel portion of this appeal pending completion of the reconsideration proceedings. *See* EPA Motion to Stay, Doc. #1478306. If the Court denies this motion, it should hold that the 2013 cellulosic biofuel RFS is arbitrary and capricious.

1. API and AFPM argue that it was unreasonable for EPA to calculate a 6-month straight-line ramp up period for KiOR beginning in March 2013.

API/AFPM Br. 24. EPA's brief simply asserts that starting in March was reasonable because KiOR made its first shipments to customers in March. EPA Br. 56. EPA ignores that after KiOR's March shipments, *neither KiOR nor any other producer produced any cellulosic biofuel RINs in April or May.* API/AFPM Br. 24. EPA concedes that applying its 6-month straight-line ramp up period beginning in June produces a projection of 3.67 million gallons from KiOR, EPA Br. 56, but fails to acknowledge that this "best-case scenario benchmark" falls in the *middle* of EPA's final projection of 3-4 million gallons of *actual* production by KiOR. JA803. Indeed, the high end of EPA's 3-4 million gallon projection *exceeds* the "best-case scenario benchmark." API/AFPM Br. 24-25. That is not reasonable.

2. EPA offers no explanation for the sudden appearance of the terms "benchmark" and "methodology" in the final rule. Instead, EPA suggests that it acted consistently because its projections in the proposed and final rules were slightly lower than the producers' projections. EPA Br. 55. But EPA's explanations of how it arrived at those projections were completely different in the proposed and final rules. *See* API/AFPM Br. 28-33. As explained in API/AFPM's brief (at 28-33), the final rule is not a "logical outgrowth" of the proposed rule, and EPA failed to adequately explain its new methodology.

In its brief, EPA tries to shift its methodology yet again by disclaiming reliance on a "hypothetical six-month ramp-up period" to project KiOR's production and instead arguing that "EPA used it only as an assumed 'best-case' scenario for *comparison* to EPA's final projection." EPA Br. 55. But in the Final Rule, EPA cited the "benchmarks" as one of the "more significant changes" it had made to its approach to cellulosic biofuel projection. JA800. The benchmarks were clearly new in the final rule.

3. EPA's arguments concerning KiOR's May 9 quarterly update are wholly unpersuasive. EPA argues that EPA's EMTS data do not show whether KiOR produced fuel in a particular month because the EMTS system "only reflects production or importation of 'renewable fuel' that generates RINs." EPA Br. 57. Because obligated parties have to demonstrate compliance by acquiring RINs, RIN generation is the metric that matters. If KiOR was not generating RINs, EPA should not have used KiOR's production as the basis for imposing RIN acquisition obligations.

EPA also asserts that the EMTS system does not reflect renewable fuel that is produced but "kept in storage rather than sold," citing 40 C.F.R. § 80.1426(c)(3). EPA Br. 57. EPA's citation of this provision is telling: it applies only to new producers that produce "less than 125,000 gallons of renewable fuel a year," *id.*, and thus implies that EPA knew its projection of KiOR's production was grossly

overstated. *Id.* Also, *EPA does not suggest that KiOR was actually producing and storing renewable fuel*, and evidence suggests it was not. *See* Q2 2013 KiOR Inc., Earnings Conference Call - Final, Roll Call, at 4 (Aug. 8, 2013). Moreover, EPA offered no such justification in the final rule, and "courts may not accept appellate counsel's *post hoc* rationalizations for agency action." *State Farm*, 463 U.S. at 50.

4. EPA asserts that its cellulosic biofuel projection is reasonable because it was "more conservative than KiOR's." EPA Br. 57. EPA fails to offer any explanation—nor could it—for why it was reasonable for EPA to rely on KiOR's May projection without assessing its continued plausibility. EPA claims to rely on updated information from cellulosic biofuel producers, JA800, and EPA had a call with KiOR on June 17, 2013, JA1145. By the final rule, EPA knew—or at least should have known—that KiOR's May 9 figures were not reliable.

5. Finally, EPA offers no explanation for the most troubling aspect of its cellulosic biofuel projection: EPA relied on updated information from INEOS Bio from the end of July that supported a higher projection for cellulosic biofuel, JA803, but ignored updated information about KiOR that suggested a lower projection, API/AFPM Br. 22-28. Nor does EPA explain how it was reasonable to "release[] [the final rule] to the public no later than August 7, 2013," EPA Br. 53 n.28, when EPA knew or should have known that KiOR would update its production status on August 8, *see* Press Release, KiOR, KiOR to Announce

Second Quarter 2013 Financial Results on August 8, 2013 (July 11, 2013), http://investor.kior.com/releases.cfm.

CONCLUSION

The Court should grant the petitions for review.

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

This brief complies with the type-volume limitations of Federal Rule of Appellate Procedure 32(a)(7)(B) because it contains 3,998 words, excluding the parts of the brief exempted by Rule 32(a)(7)(B)(iii). This brief complies with the typeface requirements of Rule 32(a)(5) and the type style requirements of Rule 32(a)(6) because it has been prepared in a proportionally spaced typeface using Microsoft Word 2010 in Times New Roman and 14 point font.

/s/ Robert A. Long, Jr.
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February 25, 2013

CERTIFICATE OF SERVICE

I hereby certify that on February 25, 2014, I caused copies of the Reply Brief for Petitioners American Petroleum Institute and American Fuel & Petrochemical Manufacturers to be served by the Court's CM/ECF system, which will send a notice of the filing to all registered CM/ECF users.

/s/ Robert A. Long, Jr.
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ORAL ARGUMENT SCHEDULED FOR APRIL 7, 2014

Nos. 13-1265, -1267, -1268 (consolidated)

In the United States Court of Appeals For the District of Columbia Circuit

MONROE ENERGY, LLC, *et al.*,
Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
Respondent,

On Petition for Review of Final Action by the United States Environmental Protection Agency

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TABLE OF CONTENTS

TABLE OF AUTHORITIES ii

GLOSSARY iv

STATUTES AND REGULATIONS iv

SUMMARY OF ARGUMENT 5

ARGUMENT 6

I. EPA's Decision to Rely upon Carryover RINs when Determining Not to Reduce the Applicable Volumes of Advanced Biofuels and Total Renewable Fuels is an Unreasonable Interpretation of the Statute. 6

A. EPA Confuses the Distinction Between Compliance Standards and Compliance Alternatives. 7

B. EPA Impermissibly Restricts Compliance Flexibility. 10

C. EPA Cannot Selectively Rely on One Element of the RIN Program. 12

D. EPA's Approach Does Not Ensure Promotion of Renewable Fuel Use 14

II. EPA Must Clearly Identify the Criteria that It Has Applied in Determining to Retain the 2013 RFS. 18

III. Monroe and PBF have standing to challenge the 2013 Rule. 21

CONCLUSION 24

TABLE OF AUTHORITIES

CASES

American Lung Association v. EPA,
134 F.3d 388 (D.C. Cir. 1998)..... 18, 19, 20

API v. EPA,
706 F.3d 474 (D.C. Cir. 2013).....16

Lujan v. Defenders of Wildlife,
504 U.S. 555 (1992) 21

National Ass'n of Clean Water Agencies v. EPA,
734 F.3d 1115 (D.C. Cir. 2013).....18

National Chicken Council v. EPA,
687 F.3d 393 (2012) 22

SEC v. Chenery Corp.,
332 U.S. 194 (1947) 19

Sierra Club v. EPA,
292 F.3d 895 (D.C. Circ. 2002)..... 21, 23

Simon v. Eastern Kentucky Welfare Rights Org.,
426 U.S. 26 (1976) 22

STATUTES

42 U.S.C. § 7545(o)(2)(B)(i) 7

42 U.S.C. § 7545(o)(2)(B)(ii) 7, 20

42 U.S.C. § 7545(o)(5).....8

42 U.S.C. § 7545(o)(7)(A).....7, 20

42 U.S.C. § 7545(o)(7)(D)(i) 5, 7, 8, 9, 13, 15, 18, 19

REGULATIONS

40 C.F.R. § 80.1105 7

40 C.F.R. § 80.1127 7

40 C.F.R. § 80.1427 8

OTHER AUTHORITIES

EPA, *Regulation of Fuels and Fuel Additives: Renewable Fuel Standard Program,* 72 Fed. Reg. 23,90072 (May 1, 2007) 10, 11, 12, 13

EPA, *Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program*; Final Rule, 75 Fed. Reg. 14,670 (Mar. 26, 2010) 10, 11

EPA, *Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program*; Final Rule, 77 Fed. Reg. 1,320 (Jan. 9, 2012) 9

EPA, *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards*; Final Rule 78 Fed. Reg. 49, 794 (Aug. 15, 2013) 8, 9, 10, 14, 17

GLOSSARY

EISA	Energy Independence and Security Act of 2007, Pub.L. No. 110-140, 121 Stat. 1492
EPA	Environmental Protection Agency
E10	A finished gasoline blend containing up to 10% ethanol
E85	A finished gasoline blend containing up to 85% ethanol
RFS	Renewable Fuel Standard
RIN	Renewable Identification Number
2007 Rule	EPA, *Regulation of Fuels and Fuel Additives: Renewable Fuel Standard Program*; Final Rule, 72 Fed. Reg. 23,900 (May 1, 2007)
2010 Rule	EPA, *Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program*; Final Rule, 75 Fed. Reg. 14,670 (Mar. 26, 2010)
2013 Rule	EPA, *Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards*; Final Rule, 78 Fed. Reg. 49,794 (Aug. 15, 2013).

STATUTES AND REGULATIONS

All applicable statutes and regulations are contained in the Petitioners' Opening Briefs.

SUMMARY OF ARGUMENT

For the first time since the inception of the RFS program, EPA projects that the volumes of renewable fuels that will be consumed in the United States will be less than the statutorily-mandated volumes – 1.4 billion gallons less. Rather than reduce the 2013 RFS pursuant to Section 7545(o)(7)(D)(i) of the Clean Air Act (the "Act"), 42 U.S.C. § 7545(o)(7)(D)(i), to account for this shortfall, EPA retained the applicable volumes based primarily on the availability of carryover RINs.

EPA's determination to rely on carryover RINs in deciding to retain the 2013 RFS is flawed for several reasons. First, EPA's approach confuses the critical distinction between compliance standards, on the one hand, and compliance demonstration alternatives on the other. This distinction is recognized as significant in both the Act and its implementing regulations.

Second, EPA's reliance on carryover RINs sacrifices the statutory goal of compliance flexibility. Specifically, EPA's approach simultaneously minimizes compliance flexibility and transforms a compliance *option* (*i.e.*, carryover RINs) into a compliance *mandate* because the RFS cannot be achieved without reliance on carryover RINs. Even to the extent that promoting renewable fuel use and compliance flexibility could be considered competing goals, EPA previously undertook to balance those goals by capping (through regulation) the extent to

which carryover RINs may be used for current-year compliance. EPA's reliance on carryover RINs in the 2013 Rule disregards and upsets that balance.

Third, EPA cannot rely solely on carryover RINs in deciding to retain the 2013 RFS because this approach selectively ignores the multiple considerations that affect the intended market forces influencing the RIN system.

EPA also erred in its 2013 Rule by failing to identify the factors that it considered as relevant in its determination of whether to reduce the applicable volumes. EPA's error prevents meaningful review of whether EPA's construction of the statute is permissible, or whether its determination was arbitrary and capricious.

ARGUMENT

I. EPA's Decision to Rely upon Carryover RINs when Determining Not to Reduce the Applicable Volumes of Advanced Biofuels and Total Renewable Fuels is an Unreasonable Interpretation of the Statute.

Throughout its brief, EPA emphasizes the complexities of the RFS program, insists that EPA sought to address these complexities through its various implementing rules, and urges the Court to simply defer to EPA in light of these considerations. In pursuing this line of argument, EPA hopes to cloud the fundamental point advanced by PBF Holding Company LLC ("PBF"). Notwithstanding EPA's machinations, the core issue addressed in PBF's brief is rather simple: can EPA rely upon the availability of carryover RINs in deciding

whether to exercise its waiver authority under Section 7545(o)(7)(D)(i)? The answer mandated by the statute must be "no," because EPA's reliance on carryover RINs: (1) confuses the critical distinction between compliance standards and compliance demonstration alternatives; (2) impermissibly restricts compliance flexibility; (3) selectively ignores multiple factors affecting RIN availability; and (4) does not ensure promotion of renewable fuel use.

A. EPA Confuses the Distinction Between Compliance Standards and Compliance Alternatives.

Under any standard-based statutory scheme, there are two separate issues that must be addressed. First, what is the standard? Second, how do affected parties demonstrate compliance with that standard? *Compare, e.g.*, 40 C.F.R. § 80.1105 (defining "What is the Renewable Fuel Standard?") *with* § 80.1127 (defining "How are RINs used to demonstrate compliance?").

In the context of the RFS program, the applicable *standards* are initially established by statute, 42 U.S.C. § 7545(o)(2)(B)(i), but EPA is granted authority to waive those standards under certain circumstances.[1] *Id.* §§ 7545(o)(2)(B)(ii), (o)(7)(A), (o)(7)(D).

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[1] EPA's general waiver authority under Section 7545(o)(7)(A) is not at issue in this case as there is no waiver petition before the Court, nor has EPA independently taken action to reduce the RFS. Nonetheless, Respondent-Intervenors dedicate a material portion of their brief to discuss the theoretical application of this authority. Resp.-Int. Br. 31-34. Because the general waiver

Separately, the Act establishes a credit program, as a *method of demonstrating compliance* with the statutory standard, and without regard to whether that standard has been reduced by EPA under its waiver authority. *Id.* § 7545(o)(5). Under this credit program, obligated parties are explicitly granted certain compliance options. *Id.* § 7545(o)(5)(C)-(D); 40 C.F.R. § 80.1427. For example, obligated parties may use previous-year RINs (*i.e.*, carryover RINs) to satisfy part of the current-year obligation, primarily rely on current-year RINs, or carry over a credit deficit to the subsequent year. 40 C.F.R. § 80.1427.

In 2013, EPA conflated the distinction between a compliance standard and a compliance option by impermissibly relying on a compliance option (carryover RINs) as justification for retaining an otherwise unachievable compliance standard. 78 Fed. Reg. 49,794, 49,820-22 (Aug. 15, 2013) ("2013 Rule"). Specifically, for 2013, EPA determined that it would not reduce the applicable volumes of advanced biofuels and total renewable fuels under Section 7545(o)(7)(D)(i) because of the availability of a compliance option (carryover RINs) that is not related to the appropriate determination of the standard in the first instance. Indeed, EPA emphasizes the importance of the RINs carryover compliance option to EPA's 2013 compliance standard determination, conceding that compliance

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authority has not been triggered in this case, it is not ripe for review and Respondent-Intervenor's discussion is superfluous.

with the 2013 RFS would be "extremely challenging" in the absence of carryover 2012 RINs.[2] 2013 Rule at 49,821.

EPA's reliance on carryover RINs stands in contrast to its regulatory approach in 2012, where it respected the distinction between compliance options and compliance standards by relying solely on the availability of renewable fuels in deciding to retain the 2012 standard.[3] *See API v. EPA*, 706 F.3d 474, 480-81 (D.C. Cir. 2013) (noting that EPA determined not to reduce the 2012 RFS under Section 7545(o)(7)(D)(i) based on the projected *availability* of other sources of advanced biofuels); 77 Fed. Reg. 1,320 (Jan. 9, 2012). Under EPA's final 2012 RFS rulemaking, obligated parties retained the full range of compliance options to meet the standard for that compliance period.

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[2] EPA attempts to downplay its reliance on carryover RINs by claiming that it only considered them when analyzing a "worst case" scenario. EPA Br. 19-20, 26. There is nothing in the preamble to the 2013 Rule, however, that suggests that EPA viewed this scenario as the "worst case." 2013 Rule at 49,820-22. Moreover, EPA does not dispute that the availability of carryover RINs was a material factor in EPA's decision not to reduce the applicable volumes under Section 7545(o)(7)(D)(i). EPA Br. 11.

[3] Contrary to Respondent-Intervenors' assertions, this case is distinct from *API v. EPA*, 706 F.3d 474 (D.C. Cir. 2013). Resp.-Int. Br. 38. First, PBF has not argued that EPA should have supported its decision not to reduce the applicable volumes under Section 7545(o)(7)(D)(i) with specific numerical projections, as was this Court's holding in *API*. Second, *API* did not involve any consideration of the legitimacy of EPA's reliance on carryover RINs in determining whether to reduce the applicable volumes under Section 7545(o)(7)(D)(i), which is the fundamental focus of PBF's objections in this case.

B. EPA Impermissibly Restricts Compliance Flexibility.

EPA's reliance on carryover RINs sacrifices another statutory goal: compliance flexibility. The determination by EPA through the 2013 Rule to retain the statutory RFS in reliance on carryover RINs necessitates that obligated parties, as a group, *must* use carryover RINs because compliance would not otherwise be achievable. 2013 Rule at 49,821. Obligated parties are, therefore, unable to realize the full benefit of the compliance flexibility intended by the Act.

Even assuming that EPA's reliance on carryover RINs promotes renewable fuel use (a proposition that, as discussed below, is questionable in light of the ceiling on current-year renewable fuel use due to the ethanol blendwall), EPA cannot defend the premise that the approach adopted through the 2013 Rule is necessary to promote that objective. Instead, EPA had already undertaken, by regulation, to balance the potentially competing goals of compliance flexibility and promotion of renewable fuel use.

Specifically, EPA incorporated into its 2007 RFS regulation (as re-adopted in the 2010 rulemaking) a "rollover cap" on carryover RINs, for the sole purpose of protecting against the possibility that the compliance flexibility afforded by statute could undermine the renewable fuel market in a particular compliance year, should too many RINs be carried-over and applied to compliance. 72 Fed. Reg. 23,900, 23,934-35 (May 1, 2007) ("2007 Rule"); 75 Fed. Reg. 14,670, 14,734-35

(Mar. 26, 2010) ("2010 Rule"). Indeed, EPA even coined a name for this circumstance: the "rollover" problem. 2010 Rule at 14,734. EPA explained that procedures governing reliance on carryover RINs must balance the competing interests of market-influenced compliance flexibility with protecting against excessive reliance on carryover RINs in any year.

EPA, therefore, devised a regulatory scheme that included a "rollover cap" to prevent obligated parties from amassing sufficient carryover RINs to satisfy their entire current year obligation, and thus negatively impact the demand for renewable fuel in that year. *Id.* at 14,735. To avoid this "glut" of carryover RINs, EPA established a 20% cap on reliance on such RINs (referred to as the "20% rollover cap"). Specifically, the 2007 and 2010 Rules provide that no more than 20% of the current-year RFS can be met with carryover RINs. EPA explicitly concluded that the 20% rollover cap provides "the appropriate balance between, on the one hand, allowing legitimate RIN carryover and protecting against potential supply shortfalls that could limit the availability of RINs, and on the other hand ensuring an annual demand for renewable fuels as envisioned by [the CAA]." *Id.*

Therefore, in promulgating the 2007 and 2010 Rules, EPA specifically restricted the extent to which an obligated party may rely on carryover RINs to satisfy its compliance obligations, and thereby expressly concluded that the 20% rollover cap achieved the appropriate balance between the preservation of

compliance flexibility envisioned by the Act and protection against the "rollover" problem. Having already established through regulation the constraint on carryover RINs necessary to preserve this desired balance, EPA clearly attempts to re-set this value in the 2013 RFS without revisiting or attempting to amend the 2007 and 2010 Rules.

C. EPA Cannot Selectively Rely on One Element of the RINs Program.

The RIN system reflects EPA's effort to establish the mechanism for implementing the statutory objective favoring market-based compliance with the RFS obligation. 2007 Rule at 23,904. In the 2013 Rule, EPA disregards the multi-faceted elements of the RIN system, and relies solely on carryover RINs in defining the 2013 RFS. The fundamental flaw in this approach is that EPA selectively ignores the multiple considerations that affect RIN availability.

Initially, the availability for compliance in 2013 of 2012 carryover RINs is constrained by the 20% rollover cap. Therefore, EPA's decision to retain the statutory 2013 RFS necessarily increases the demand for 2013 RINs. However, total RIN availability in 2013 could be (significantly) affected by many factors. For example, obligated parties may determine to retain 2013 RINs for use in 2014 (subject to the 20% rollover cap) to hedge against tightening of the RIN market due to the blendwall. *See, e.g.*, Monroe Br. 15-16. Market forces can also prompt parties to retain 2012 or 2013 RINs to limit the compliance options of competitors.

Variability in RIN prices can further influence the true "availability" of RINs at different times.

The point is not that EPA must identify and account for all potential permutations when deciding whether to exercise its authority under Section 7545(o)(7)(D)(i); rather, these considerations exemplify why the RIN system is intended to allow market opportunities to enable compliance demonstration alternatives. The inherent variability of such market considerations necessarily renders it difficult, if not impossible, to predict the precise or even approximate iterations of those market influences in the future. EPA's selective reliance on 2012 carryover RINs in setting the 2013 compliance standard necessarily *cannot* account for those variables. EPA must instead establish the *compliance standard* based on availability of renewable fuels, and allow the RIN system to function as intended, without additional constraint, on the *compliance demonstration* side of the ledger.

In addition, EPA's manipulation of the RIN system undermines another important function of RINs. EPA acknowledges the inherent uncertainty in any annual RFS due to unforeseen circumstances such as a natural disaster. 2007 Rule at 23,926-27. EPA explains that carryover RINs provide some hedge against this uncertainty. For example, if a drought were to depress ethanol production in 2014, obligated parties would face a shortfall in RIN availability. The availability of

sufficient 2013 carryover RINs would be essential to offset such shortfall. By artificially increasing demand for 2013 RINs by relying on 2012 carryover RINs in maintaining the 2013 RFS, EPA substantially dampens the buffer that 2013 RINs might otherwise provide.

D. EPA's Approach Does Not Ensure Promotion of Renewable Fuel Use.

EPA argues in its brief that, by opting to consider carryover RINs in retaining the 2013 applicable volumes, EPA advances the statutory goal of promoting the use of renewable fuels. EPA Br. 23. EPA's argument misses the mark because EPA's reliance on carryover RINs only ensures the use of more 2013 *RINs* and not necessarily the use of renewable fuels in 2013. As EPA has acknowledged, the ethanol blendwall effectively imposes a ceiling on renewable fuel use irrespective of the actual standard. *See* 2013 Rule at 49,820-21 (discussing the impact of the E10 blendwall and noting that the consumption of E85 will not substantially increase the percentage of ethanol in the gasoline fuel pool in 2013 above 10%).

This point may be best illustrated by analyzing a simplified version of a theoretical RFS involving *one* obligated party. Assume the following facts:

- Total Statutory RFS for 2013 = **120 Gallons**
- Projected Volume of Total Renewable Fuel Available to Consumers in 2013 including Projected Use of E85 = **100 Gallons**

- Available 2012 carryover RINs = **30 RINs**
- Volume of advanced biofuels available above the statutory mandate = 0 gallons
- Reduction of the applicable volume of cellulosic biofuel has triggered the second sentence in Section 7545(o)(7)(D)(i).

Given these simplified facts, consider two different approaches that could, at least in theory (*i.e.*, without regard to statutory language or purpose), be utilized to establish the annual standard: one based solely on *the availability of renewable fuel*, and the other based on *both the availability of renewable fuel and carryover 2012 RINs*.

Under the first scenario based solely on renewable fuel availability, EPA would reduce the statutory standard under Section 7545(o)(7)(D)(i) to 100 gallons, since the projected availability of total renewable fuels (100 gallons) is below the statutory RFS (120 gallons). The obligated party would then be required to demonstrate compliance with this 100-gallon standard by submitting 100 RINs. Based on the 20% rollover cap, the obligated party would have the option of demonstrating compliance by submitting up to 20 carryover 2012 RINs, with the balance made up by 80 RINs from 2013, or by having a RIN deficit carried forward into 2014. The obligated party could choose to apply as few as zero carryover 2012 RINs, and therefore secure 100 RINs from 2013; the point is that the availability of carryover RINs affords the obligated party compliance

alternatives, as intended, including the option to limit its 2013 RINs obligation to a specific value.

Under the second scenario (consistent with EPA's flawed approach in 2013), EPA would establish the compliance standard based not only on the availability of relevant renewable fuels, but also upon the availability of carryover 2012 RINs. EPA concluded that because sufficient carryover 2012 RINs are available to offset the shortfall between the blendwall and the RFS, the statutory standard at 120 gallons is retained (requiring the submission of 120 RINs). The obligated party in this second scenario would no longer have the option of using zero carryover RINs because renewable fuel use, and thus the availability of separated 2013 RINs, is effectively capped by the ethanol blendwall at 100 gallons. Further, the obligated party simultaneously loses compliance flexibility to limit its reliance on 2013 RINs because EPA has artificially increased the necessity of the party's reliance on a specific quantity of 2013 RINs

As compared to the first scenario, forcing the use of carryover RINs in this scenario does nothing to increase the ceiling imposed by the blendwall; it would only increase the usage of 2013 RINs. Specifically, assuming that the obligated party uses the full 20% rollover cap under both scenarios, 2013 *RIN* usage would increase from 80 RINs (100 – (20% x 100 RINs)) in the first scenario to 96 RINs (120 – (20% x 120 RINs)).

Even to the extent that increasing 2013 RIN usage could be considered a desirable result, that increase is partially offset by a decrease in RINs carried over into 2014. From the above example, the amount of carryover 2013 RINs would decrease from 20 RINs under the first scenario (100 – 80 = 20 RINs) to 4 RINs (100 – 96 = 4 RINs) under the second scenario.[4]

Importantly, EPA had separately addressed competing considerations affording compliance flexibility to obligated parties by establishing the 20% rollover cap in the 2007 Rule. As described in Section I.B above, EPA noted that the 20% rollover cap achieved the necessary balance between compliance flexibility and ensuring an annual demand for renewable fuels. EPA appears to have determined that such balance must be re-set in the context of the 2013 Rule, but has provided no justification for its effective revision of the existing regulatory program.

[4] The practical effect of EPA's manipulation of the carryover RIN compliance option is that it has shrunk the actual or perceived availability of RINs, which necessarily increases RIN costs. In early January 2013, the ethanol RIN price was 5 cents per RIN. By March 2013, after EPA proposed to retain the full statutory RFS, the price rose to 70 cents per RIN, and then continued to rise after the comment period closed. 2013 Rule at 49,322. EPA concedes that the primary driver for this sharp price increase was the "approaching E10 blendwall and the related anticipation of future scarcity of RINs in the context of currently high feedstock prices." *Id.*

II. EPA Must Clearly Identify the Criteria that It Has Applied in Determining to Retain the 2013 RFS.

EPA argues that "the fact that EPA did not provide a comprehensive list of the factors that it potentially 'could have' considered does not render EPA's [decision not to reduce the applicable volumes] arbitrary."[5] EPA Br. 21. Nowhere does PBF contend that EPA's duty in promulgating the 2013 Rule requires the identification of all possible factors when evaluating whether to reduce the applicable volumes under Section 7545(o)(7)(D)(i). To the contrary, PBF simply argues that EPA failed to clearly identify the factors *that it did consider* as relevant under Section 7545(o)(7)(D)(i).[6] PBF Br. 27-31.

As this Court explained in *American Lung Association v. EPA*, 134 F.3d 388, 392 (D.C. Cir. 1998), effective judicial review of agency action requires the

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[5] EPA placed the terms "could have" in quotes. It is unclear what EPA is quoting as the sentence is not cited and the phrase does not appear anywhere in PBF's opening brief.

[6] Contrary to EPA's assertion, PBF's claim that EPA failed to identify the factors that it evaluated under Section 7545(o)(7)(D)(i) falls squarely within the scope of Petitioner Monroe's challenges. Monroe specifically challenges EPA's 2013 Rule as arbitrary and capricious based on EPA's failure to properly consider certain factors. Monroe Br. 14-21. PBF's challenge is even more fundamental -- a court cannot even undertake an arbitrary and capricious review unless EPA clearly identifies the factors it used to arrive at its conclusion. *See Am. Lung Ass'n v. EPA*, 134 F.3d 388, 392-93 (D.C. Cir. 1998) (noting that judicial review can only occur when the agency precisely explains its actions). *National Ass'n of Clean Water Agencies v. EPA*, 734 F.3d 1115, 1161 (D.C. Cir. 2013) is easily distinguishable as the intervenor in that case raised a specific challenge to EPA's treatment of a certain technology while none of the petitioners in the case mentioned that technology.

agency to explain its decision with reasonable precision, for "[i]t will not do for a court to be compelled to guess at the theory underlying the agency's action . . . ." *Id.* (quoting *SEC v. Chenery Corp.*, 332 U.S. 194, 209 (1947)). In *American Lung Association*, this Court held that EPA failed to clearly identify the factors supporting its decision that 5-minute peaks in SO_2 concentrations ("SO2 bursts"), which were known to affect exposed asthmatics, did not amount to a "public health" problem. *Id.* at 392-93. Although EPA may have justifiability reached that conclusion, this Court held that, unless EPA describes the factors under which it arrived at its conclusion "supported by a 'plausible' explanation," the Court has "no basis for exercising [its] responsibility to determine whether [EPA's] decision is 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law . . . [or] in excess of statutory . . . authority." *Id.*

EPA's mistake in the 2013 Rule is even more extreme. In *American Lung Association*, EPA identified the relevant factor(s) requiring evaluation, but then failed to link its conclusion that SO_2 bursts did not affect public health to the record. In the 2013 Rule, EPA did not even clearly identify all factors that it deemed relevant in deciding whether to exercise its authority under Section 7545(o)(7)(D)(i), let alone link those factors to the record. To be clear, EPA commenced its analysis by identifying two factors that it believed relevant: (1) availability of advanced biofuels and renewable fuels; and (2) availability of

carryover RINs. 2013 Rule at 49,813-23. However, EPA also ambiguously asserted that "it may be appropriate to [also consider the criteria provided in Sections 7545(o)(2)(B)(ii) and 7545(o)(7)(A)] in certain circumstances, as described more fully below." 2013 Rule at 49,810. Following this broad statement on the potential applicability of up to eight other factors, it is nearly impossible to discern the "appropriate . . . circumstances" where EPA believed that these factors applied.

EPA appears to have considered at least two of the factors under Sections 7545(o)(2)(B)(ii) and 7545(o)(7)(A). *See* 2013 Rule at 49,814 (discussing lifecycle greenhouse gas emissions associated with biodiesel, a criterion under Section 7545(o)(2)(B)(ii)(I)); *id.* at 49,822 (discussing impact of RFS on transportation fuel costs, a criterion under Section 7545(o)(2)(B)(ii)(V)). By contrast, it appears that EPA did not address the other six criteria provided in Sections 7545(o)(2)(B)(ii) and 7545(o)(7)(A), nor offer any explanation as to why some criteria were relevant while others were not.

Because EPA does not clearly identify the relevant factors under Section 7545(o)(7)(D)(i) supported by a "plausible explanation," the Court has "no basis for exercising [its] responsibility to determine whether [EPA's] decision is 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law . . . [or] in excess of statutory . . . authority." *American Lung Ass'n*, 134 F.3d

at 392-93 (quoting 42 U.S.C. § 7607(d)(9)(A)-(C)). By not clearly identifying the criteria that it applied, EPA essentially grants itself unfettered discretion to select criteria that it considers "appropriate" without allowing meaningful judicial review of the statutory basis for that selection.

III. Monroe and PBF have standing to challenge the 2013 Rule.

Respondent-Intervenors assert that Monroe and PBF lack standing to pursue their challenges to the 2013 Rule. Resp.-Int. Br. 12-14. EPA does not mount a standing challenge and with good reason. As both the U.S. Supreme Court and this Court have observed, where the petitioner is itself the "object of the action (or forgone action) at issue" then there is "ordinarily little question that the action or inaction has caused him injury, and that a judgment preventing or requiring the action will redress it." *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561-62 (1992); *Sierra Club v. EPA*, 292 F.3d 895, 900-01 (D.C. Circ. 2002).

In this case, Monroe and PBF are the object of EPA's action in that they are subject to the 2013 Rule and obligated to submit RINs in accordance with volume percentage requirements established in that regulation. The precise extent of that RINs obligation directly affects the burden imposed on obligated parties, including PBF and Monroe. For the same reason, a vacatur or remand of the 2013 Rule would remedy PBF's and Monroe's injury by redressing the excessive RIN burden currently imposed through the regulation.

The cases cited by Respondent-Intervenors pertain to the standing (or lack thereof) of parties who *were not the object* of the respective agency's action but instead were third parties who alleged injury based on the potential responses to the agency action by the entities who were the object of the agency's action. *See, e.g., Simon v. Eastern Kentucky Welfare Rights Org.*, 426 U.S. 26, 40-46 (1976) (denying standing to challenge IRS' tax treatment of hospitals who did not serve indigents because the injury – denial of service – was indirect and resulted from the independent actions of the hospitals who were not before the court); *National Chicken Council v. EPA*, 687 F.3d 393 (2012) (denying standing to petitioners challenging EPA's interpretation of "qualifying ethanol plant" because the petitioners failed to show a substantial probability that a different interpretation would force such plants to reduce ethanol production and thus redress petitioners' injury).

There can be no reasonable contention under the circumstances of this case that Monroe or PBF does not have a direct interest in the resolution of the asserted challenges to the 2013 Rule. Each company has identified a concrete and particularized injury, which is directly connected with the challenged action, and has sought relief from this Court that would directly redress such injury. For these reasons, under the well-established standards governing the legal standing of

entities to pursue challenges to agency action, it is "self-evident" that Monroe and PBF have demonstrated such standing. *Sierra Club*, 292 F.3d at 900-01.

CONCLUSION

For the reasons discussed above, this Court should vacate the 2013 Rule and corresponding volume obligations.

February 25, 2014

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH RULE 32(a)

This brief complies with the type-volume limitations of Fed. R. App. P. 32(a)(7)(B), and the applicable word limit of the October 29, 2013 briefing order in this case, because it contains 4,336 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii). This brief complies with the typeface requirements of Fed. R. App. 32(a)(5) and the type style requirements of Fed. R. App. 32(a)(6) because it has been prepared in a proportionally spaced typeface using Microsoft Word 2010 in Times New Roman and 14 point font.

February 25, 2014

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I hereby certify that on February 25, 2014, I caused copies of the Reply Brief for Petitioner-Intervenor PBF Holding Company LLC to be served by the Court's CM/ECF system, which will send a notice of the filing to all registered CM/ECF users.

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ORAL ARGUMENT SCHEDULED FOR APRIL 7, 2014

IN THE

United States Court of Appeals for the District of Columbia Circuit

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Consolidated Docket Nos. 13-1265, 13-1267, 13-1268

MONROE ENERGY, LLC, *et al.*,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY,

Respondent.

On Petition for Review of Final Action of the United States Environmental Protection Agency

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REPLY BRIEF OF PETITIONER MONROE ENERGY, LLC

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TABLE OF CONTENTS

TABLE OF AUTHORITIES ii

GLOSSARY iv

STATUTES AND REGULATIONS iv

SUMMARY OF ARGUMENT 1

ARGUMENT 3

I. EPA Acted Arbitrarily and Capriciously When Setting 2013 Volume Requirements 3

A. EPA Erroneously Counted RINs Carried Over From 2012 to 2013, Without Accounting For RINs That Would Be Carried Over From 2013 to 2014 3

B. EPA's Disregard of Spiking RIN Prices Was Arbitrary and Capricious 7

C. Respondent-Intervenors' Remaining Arguments Are Without Merit 9

D. This Court Need Not Resolve the Scope of EPA's Discretion in This Case 11

II. EPA's Tardy Issuance of the 2013 Rule Requires Vacatur 12

CONCLUSION 13

RULE 32(a)(7) CERTIFICATE 15

CERTIFICATE OF SERVICE 16

TABLE OF AUTHORITIES*

CASES

American Petroleum Institute v. EPA, 706 F.3d 474 (D.C. Cir. 2013) 10

Appalachian Power Co. v. EPA, 135 F.3d 791 (D.C. Cir. 1998) 6

Arizona Public Service Co. v. United States, 742 F.2d 644 (D.C. Cir. 1984).....2

Calpine Corp. v. FERC, 702 F.3d 41 (D.C. Cir. 2012) 12

**Chemical Manufacturers Ass'n v. EPA*, 217 F.3d 861 (D.C. Cir. 2000).....9

**FCC v. Fox Television Stations, Inc.*, 129 S. Ct. 1800 (2009) 8

International Fabricare Institute v. EPA, 972 F.2d 384 (D.C. Cir. 1992) 10

**National Shooting Sports Foundation, Inc. v. Jones*, 716 F.3d 200 (D.C. Cir. 2013) 5, 6

Saad v. SEC, 718 F.3d 904 (D.C. Cir. 2013) 5

SEC v. Chenery Corp., 318 U.S. 80 (1943) 12

STATUTES

42 U.S.C. § 7545(o)(2)(A)(i) 9

Energy Independence & Security Act of 2007, 121 Stat. 1492.....9

OTHER AUTHORITIES

40 C.F.R. § 80.1406(a)(1) 10

EPA, 2014 Standards for the Renewable Fuel Standard Program, 78 Fed. Reg. 71,732 (Nov. 29, 2013) 12

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* Authorities upon which we chiefly rely are marked with an asterisk.

*EPA, Regulation of Fuels and Fuel Additives: Renewable Fuel Standard Program, 72 Fed. Reg. 23,900 (May 1, 2007) 7, 8

GLOSSARY

EPA	Environmental Protection Agency
E10	A finished gasoline blend containing up to 10% ethanol
E85	A finished gasoline blend containing up to 85% ethanol
RIN	Renewable Identification Number
2007 Rule	EPA, Regulation of Fuels and Fuel Additives: Renewable Fuel Standard Program, 72 Fed. Reg. 23,900(May 1, 2007).
2013 Rule	EPA, Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards, 78 Fed. Reg. 49,794 (Aug. 15, 2013).

STATUTES AND REGULATIONS

All applicable statutes and regulations are contained in the Opening Brief for Monroe Energy LLC ("Monroe").

SUMMARY OF ARGUMENT

EPA does not dispute the glaring contradiction in its decision-making: EPA *counted* 2.6 billion RINs that could be carried over from 2012 into 2013 (in order to overcome a potential shortfall of 1.4 billion RINs due to the E10 blendwall), but it neglected to *subtract* more than 3.0 billion RINs that, under the same rules, could be carried forward from 2013 into 2014. Significantly, EPA never determined that this carry-forward into 2014 would *not* occur; rather, it declared that it could not predict how many 2013 RINs would be banked for 2014 compliance. JA819. But uncertainty does not justify EPA in ignoring the issue entirely – particularly given its recognition that parties with 2013 RINs were in fact "carrying them over to help assure compliance with their own obligations in a future year," and that 2013 RINs might not be available to others who need them. *Id.*

The lack of reasoned decision-making by EPA is not some abstract imperfection. Prices for RINs are set by supply and demand. Yet unlike an ordinary market, where high prices induce additional production that then lowers prices, high RIN prices cannot induce additional production of RINs. Because of the blendwall, the supply of RINs is fixed by the number of gallons of gasoline that will be consumed in the United States, no matter how high RIN prices go. Thus, after EPA issued its proposed 2013 rule setting a volume requirement that EPA has acknowledged was "1.4 bill gal above the E10 blendwall," JA819, RIN prices

soared. For an independent refiner that must purchase 150 million non-advanced RINs, the 2013 Rule has increased compliance costs from about $4.5 million *to nearly $90 million*, based on recent prices.

That leads to another reason why the 2013 Rule must be vacated: even if, under EPA's cocktail-napkin arithmetic, sufficient RINs might be available at some price, EPA utterly failed to consider any factor *other* than compliance. EPA did not analyze whether the dramatic increase in RIN prices resulting from the proposed rule was appropriate; whether the draconian impact on independent refiners like Monroe was an acceptable consequence of the 2013 Rule; or whether the agency could justifiably disregard its prior pronouncements that the RIN market should operate *without* disadvantaging obligated parties reliant on the RIN market for compliance. "[A]bstract theorizing offered in a vacuum [is] inadequate to satisfy [the requirement] that the agency has engaged in reasoned decisionmaking." *Ariz. Pub. Serv. Co. v. United States*, 742 F.2d 644, 649 n.2 (D.C. Cir. 1984).

Finally, EPA's decision-making cannot be upheld as necessary to fulfill a statutory purpose. By the time EPA acted in August 2013, the year was two-thirds over, with virtually no time left to cause any materially greater use of renewable fuel in 2013. Indeed, EPA expressly recognized that use of advanced biofuels and higher ethanol blends (such as E85) could not come close to filling the gap created

by the E10 blendwall. JA818-20. Consequently, the amount of renewable fuel used in 2013 *could not reach* that required volume, and the 2013 Rule contains no reasoned analysis justifying the statutory volume requirement as necessary to increase usage of renewable fuel – let alone at the expense of grossly disproportionate compliance costs for parties like Monroe. For these reasons, this Court should vacate the 2013 Rule.

ARGUMENT

I. EPA Acted Arbitrarily and Capriciously When Setting 2013 Volume Requirements.

A. EPA Erroneously Counted RINs Carried Over From 2012 to 2013, Without Accounting For RINs That Would Be Carried Over From 2013 to 2014.

EPA's proposed 2013 Rule, which retained the statutory volume amounts even though the economy could not absorb that much renewable fuel, precipitated a dramatic spike in RIN prices.[1] The cause was no secret. "[T]he primary driver for these price increases" was "the approaching E10 blendwall and the related anticipation of future scarcity of RINs," JA819 – *i.e.*, parties' apprehension that, going forward, EPA would require them to demonstrate compliance with volume requirements that could not be achieved, backed by the threat of enormous fines.

[1] EPA claims RIN prices have dropped, but they remain more than ten times higher than their historical levels (most recently trading at around 55 cents).

Faced with these facts, rational decision-making would require EPA to modify the volume requirements to eliminate the "future scarcity" of RINs, *id.*, caused by unachievable volume requirements. Instead, EPA claims to have "appropriately discounted" the "rise in RIN prices" based on the agency's speculation that, in 2013, a sufficient number of "carryover RINs were available to satisfy the unreduced applicable volumes." EPA Br. 26-27; JA819.

Of course, if that were so, RIN prices would not have spiked dramatically in anticipation of "future scarcity." Monroe's opening brief explained the fatal flaw in EPA's logic: parties may use banked RINs to satisfy up to 20% of the next year's compliance obligation. Because statutory volume requirements increase in 2014, parties were permitted to carry over into 2014 an even *greater* number of RINs than they carried over from 2012 into 2013. *See* Monroe Br. 15-16 & nn.3-4. And while EPA's calculation counted RINs carried over from 2012 into 2013, *see* JA819, *it failed to account at all for parties' ability to carry over RINs from 2013 into 2014* – even as the agency recognized that "in 2014 compliance is expected to become significantly more difficult," JA820; that "some stakeholders" were banking RINs "to help assure compliance with their own obligations in a future year," JA819; and that, as a result, RINs "may not be available to an individual obligated party that needs them" in 2013. *Id.*

EPA "entirely failed to consider [that] important aspect of the problem." *Saad v. SEC*, 718 F.3d 904, 911 (D.C. Cir. 2013) (quotation marks omitted). Instead, it essentially threw up its hands, stating that "[t]here is no way to determine what fraction of carryover RINs may fall into this category," JA819, and then simply asserted – without any evidence – that there would be enough RINs in 2013. *Id.* This Court "may not uphold agency action based on speculation." *Nat'l Shooting Sports Found., Inc. v. Jones*, 716 F.3d 200, 214 (D.C. Cir. 2013).

Moreover, even if there were sufficient RINs in 2013, EPA's reasoning still was inadequate, because it never considered any factor *other* than the bare possibility of compliance. For example, it never considered how the risk of non-compliance in 2014 would affect the supply and price of RINs available on the secondary market in 2013, or whether the elevated RIN prices resulting from anticipated "future scarcity" served any statutory purpose. But agency action must be justified by a "satisfactory explanation … including a rational connection between the facts found and the choice made." *Id.*

Rather than defending its flawed methodology, EPA claims (Br. 25) that Monroe's argument was not raised below. That contention is meritless. EPA claims that no one told it to assume *maximum* banking of 2013 RINs, *id.*, but the problem is that EPA failed to account for 2013 RIN-banking *at all*. And numerous parties told EPA that they were concerned about unachievable volume

requirements in 2014, which were leading parties with 2013 RINs to bank them for 2014 – driving up prices and leaving others without the RINs they needed for 2013 compliance. *See* JA173-76, 424-26, 449-51, 485-90, 502-04, 759-60; EPA-HQ-OAR-2012-0546-0076. EPA acknowledged these comments in the 2013 Rule (JA819). It had every "opportunity to bring its expertise to bear" on this issue. *Appalachian Power Co. v. EPA*, 135 F.3d 791, 818 (D.C. Cir. 1998).

EPA also contends that "Monroe provides no support … that the market will be billions of RINs short." EPA Br. 25. That is not Monroe's evidentiary burden. EPA reached the conclusion that "there will be sufficient RINs available to obligated parties … in 2013." JA819. EPA has the obligation to support that conclusion with a reasoned explanation and substantial evidence, *Jones*, 716 F.3d at 214 – as well as to explain how it can be squared with its admission elsewhere in the 2013 Rule that, because some stakeholders were banking 2013 RINs for their own future compliance, "carryover RINs … may not be available to an individual obligated party that needs them." JA819. Indeed, EPA failed to explain how it can be rational to require the submission of RINs that – as EPA concedes – obligated parties may be unable to obtain.

EPA says that RINs were changing hands in summer 2013. EPA Br. 25-26. But EPA provides no data showing that the volume of RINs for sale were enough to meet all demand, and moreover, those RINs were trading at high prices induced

by EPA's rulemaking and indicative of scarcity – further evidence of the chasm between EPA's theory and economic reality.

B. EPA's Disregard of Spiking RIN Prices Was Arbitrary and Capricious.

The 2013 Rule was also arbitrary and capricious because it abandoned the agency's prior policies concerning the RIN market, without acknowledgment or explanation. EPA previously recognized that spiking RIN prices would indicate "that the RIN market is not operating as intended." EPA, Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program, 75 Fed. Reg. 14,670, 14,722 (Mar. 26, 2010). Congress instituted a credit system to allow all obligated parties to comply even though some "will have easier access to renewable fuels than others." EPA, Regulation of Fuels and Fuel Additives: Renewable Fuel Standard Program, 72 Fed. Reg. 23,900, 23,910 (May 1, 2007) ("2007 Rule"). Parties affiliated with blenders can purchase renewable fuels themselves and acquire RINs directly; parties unaffiliated with blenders ("independent refiners") will secure RINs in other ways, including on the secondary market. EPA does not dispute that, when this framework is functioning properly, compliance costs should be roughly the same, regardless of how obligated parties comply. *See id.* at 23,933. But when RIN prices spike, compliance becomes especially burdensome for independent refiners, who rely on the secondary market.

EPA contends its prior statements concerning the RIN market's design are "irrelevant to this Court's review." EPA Br. 28. But "the requirement that an agency provide reasoned explanation for its action would ordinarily demand that it display awareness that it is changing position. An agency may not, for example, depart from a prior policy *sub silentio* or simply disregard rules that are still on the books." *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).

EPA also says that Monroe must live with the consequences of its choice to rely on the secondary market. EPA Br. 27. Again, EPA is changing policy without acknowledgment or explanation. EPA previously recognized that for various reasons – including geographic location, in-house expertise, and long-term contractual arrangements – some entities "will have easier access to renewable fuels than others," 2007 Rule at 23,910, and that "[m]any obligated parties do not have access to renewable fuels or the ability to blend them, *and so must use credits to comply…*" *Id.* at 23,904 (emphasis added). The basic premise of the RIN system was to facilitate compliance by these parties *without* requiring them to change the structure of their businesses – to "allow[] the renewable fuels market to continue operating according to natural market forces, avoiding the possibility that every single refiner would need to purchase renewable fuel for blending into its own gasoline." *Id.* at 23,933. EPA's brief purports to abandon this prior policy, without saying so or explaining why.

Respondent-Intervenors (19-24) suggest that Monroe should simply buy ethanol and then separate RINs for compliance without blending the ethanol. But there is no market for neat ethanol, and forcing obligated parties to buy renewable fuel that cannot be used, solely to obtain a compliance credit, would do nothing to further the statutory purpose of increasing the amount of renewable fuel contained in "transportation fuel sold or introduced into commerce in the United States," 42 U.S.C. §7545(o)(2)(A)(i). Nor would it further Congress's intent to reduce petroleum emissions or enhance energy security. *See* Energy Independence & Security Act of 2007, 121 Stat. 1492, 1722-23. It is arbitrary and capricious for EPA "to impose costly obligations on regulated entities without regard to the Clean Air Act's purpose." *Chem. Mfrs. Ass'n v. EPA*, 217 F.3d 861, 867 (D.C. Cir. 2000).

C. Respondent-Intervenors' Remaining Arguments Are Without Merit.

Respondent-Intervenors contend (Br. 20) that the blendwall is a fiction, and that the statutory volume requirements can be met through other advanced biofuels and high-ethanol fuel blends such as E85. But they ignore EPA's finding that it would be "extremely challenging" to meet the statutory standard based on these alternatives to E10, JA818 – which is precisely why EPA relied on carryover RINs for compliance. *Id.* EPA estimated that 2.1 billion gallons of E85 would need to be consumed to overcome the E10 blendwall – far more than the 176 million

gallons EPA projected would actually be used. *Id.* EPA also noted that there was "unused biodiesel production capacity" as an alternative to ethanol, "*if demand for it exists*," JA819 (emphasis added) – a qualification that Respondent-Intervenors do not address.

Respondent-Intervenors (Br. 42-43) blame refiners for low E85 production. But as comments explained, car warranties will not cover engine problems resulting from high-ethanol blends, JA458; existing fuel storage tanks and distribution lines are not certified to handle those blends, JA458; poorly capitalized independently-owned service stations are reluctant to invest in new tanks, JA458-59; and consumers have been slow to accept high-ethanol blends. JA818. Refiners are in "no position to ensure, or even contribute to, growth" in the downstream use of high-ethanol fuels. *Am. Petroleum Inst. v. EPA*, 706 F.3d 474, 480 (D.C. Cir. 2013) (striking down technology-forcing mandates where "EPA applies the pressure to one industry (the refiners) … yet it is another … that enjoys the requisite expertise, plant, capital and ultimate opportunity for profit.").

Respondent-Intervenors also lodge two meritless jurisdictional objections. First, they contend (Br. 12-14) Monroe lacks standing. But Monroe is a regulated party, *see* 40 C.F.R. §80.1406(a)(1), contesting its own compliance obligation, which a vacatur of the 2013 Rule would redress. There can be no question of standing. *See Int'l Fabricare Inst. v. EPA*, 972 F.2d 384, 390 (D.C. Cir. 1992)

(parties "directly regulated by … standards established pursuant to the challenged rulemaking[] [c]learly … have standing to bring their challenges.").[2]

Second, Respondent-Intervenors (Br. 15-16) contend that Monroe's challenge is time-barred. But Monroe is not challenging here EPA's *past* decision to make refiners rather than blenders the "obligated parties."[3] Having adopted that framework, however, EPA must regulate in a reasonable manner consistent with its design, which EPA has failed to do.

D. This Court Need Not Resolve the Scope of EPA's Discretion in This Case.

Respondent-Intervenors argue (Br. 29-44) that EPA had no discretion to reduce statutory volume requirements. While Monroe disagrees, *see* Monroe Br. 21-23, it would be inappropriate for this Court to resolve that issue now. At issue here is EPA's rationale for imposing the statutory volume requirements – and the agency did not rely on a lack of statutory discretion, but instead on the availability of carryover RINs. JA818-20. If the Court agrees with Monroe that EPA has failed adequately to justify its action, then the 2013 Rule should be vacated.

Respondent-Intervenors essentially propose an alternative rationale for the 2013 Rule that EPA did not adopt. But "it is axiomatic that agency decisions may

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[2] In Respondent-Intervenors' cases (cited on Br. 13-14), the challenger was not itself a regulated party.

[3] Monroe has filed a separate petition for review (No. 14-1014) challenging that regulatory framework.

not be affirmed on grounds not actually relied upon by the agency." *Calpine Corp. v. FERC*, 702 F.3d 41, 46 (D.C. Cir. 2012); *SEC v. Chenery Corp.*, 318 U.S. 80, 87-88 (1943). That rule has special force here because (1) EPA determined that it *does* have discretion under the cellulosic-biofuel waiver provision to reduce statutory volume levels, *see* JA807-08 – a determination from which neither Respondent-Intervenors nor anyone else has filed a petition for review; and (2) EPA is currently considering the scope of its general waiver authority in connection with the 2014 requirements. *See* EPA, 2014 Standards for the Renewable Fuel Standard Program, 78 Fed. Reg. 71,732, 71,754-57 (Nov. 29, 2013). The Court should not preemptively decide that latter issue before EPA has formulated its own view.

III. EPA's Tardy Issuance of the 2013 Rule Requires Vacatur.

This Court has held that retroactivity, even if not foreclosed by the RFS statute, still must be "reasonable." *See* Monroe Br. 24.[4] EPA contends it was, because parties knew the statutory volume requirements and could comply by purchasing RINs following the final Rule's promulgation. That again ignores economic reality.

[4] Contrary to Respondent-Intervenors' contention (Br. 44), EPA's decision to extend the compliance period does not preclude review of EPA's tardiness. The primary relief Monroe sought was "to reduce the 2013 requirements to reflect the number of days the rule will be late in being finalized." JA759.

Congress required EPA to publish *final* obligations by November 30 of the prior year because it understood that obligated parties needed to make decisions about their conduct in the following year. Of course, had RIN prices remained low, EPA's tardiness would not have had any significant impact. But, instead, RIN prices spiked after the proposed Rule was released. Parties understandably did not change their conduct because EPA would have to take account of these radically new conditions in its final Rule. Indeed, EPA specifically requested comment on "whether the blendwall presents any difficulty in … compliance with the RFS volume requirements in 2013." JA35. Yet, despite market conditions demonstrating challenges to 2013 compliance, EPA *increased* the percentage volume requirement from 9.63% to 9.74%. *Compare* JA38 *with* JA823. By imposing the rule retroactively despite unprecedented, enormous, and disproportionate compliance burdens on certain obligated parties, EPA deprived those parties of what Congress required: the opportunity to know their obligations in advance so that they could take action – whether through exporting or exiting the business – to reduce their obligations.

CONCLUSION

The 2013 Rule should be vacated. Petitioner respectfully requests a decision by April 30, 2014, to allow Monroe sufficient time to acquire RINs after the decision but before the June 30, 2014, compliance deadline.

Dated: February 25, 2014

Respectfully submitted,

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RULE 32(a)(7) CERTIFICATE

This brief complies with the type-volume limitations of Federal Rule of Appellate Procedure 32(a)(7)(B) because it contains 2,999 words, excluding the parts of the brief exempted by Rule 32(a)(7)(B)(iii). This brief complies with the typeface requirements of Rule 32(a)(5) and the type style requirements of Rule 32(a)(6) because it has been prepared in a proportionally spaced typeface using Microsoft Word 2010 in Times New Roman and 14 point font.

February 25, 2014

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CERTIFICATE OF SERVICE

I hereby certify that, on this 25th day of February, 2014, a copy of the foregoing **Reply Brief of Petitioner Monroe Energy, LLC** was served electronically through the Court's CM/ECF system on:

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ORAL ARGUMENT NOT YET SCHEDULED

Nos. 13-1265, -1267, -1268 (consolidated)

IN THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

MONROE ENERGY, LLC, AMERICAN PETROLEUM INSTITUTE, AND AMERICAN FUEL AND PETROCHEMICAL MANUFACTURERS,
Petitioners,
PBF HOLDING COMPANY LLC,
Petitioner-Intervenor,
v.
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
Respondent,
NATIONAL BIODIESEL BOARD, BIOTECHNOLOGY INDUSTRY ORGANIZATION, GROWTH ENERGY, AND RENEWABLE FUELS ASSOCIATION,
Respondent-Intervenors.

ON PETITION FOR REVIEW OF FINAL ACTION OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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CORPORATE DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure 26.1 and D.C. Circuit Rule 26.1, Intervenor the National Biodiesel Board makes the following disclosures:

The National Biodiesel Board has no parent companies, and no publicly-held company has a 10% or greater ownership interest. It has not issued shares or debt securities to the public.

The National Biodiesel Board is a trade association as defined in D.C. Circuit Rule 26.1(b). It is the national trade association for the biodiesel industry, and its mission is to advance the interests of its members by creating sustainable biodiesel industry growth.

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CORPORATE DISCLOSURE STATEMENT

Respondent-Intervenors Biotechnology Industry Organization, Growth Energy, and Renewable Fuels Association provide the following disclosures:

Biotechnology Industry Organization ("BIO") has no parent companies, and no publicly-held company has a 10% or greater ownership interest. It has not issued shares or debt securities to the public. BIO is a trade association within the meaning of D.C. Circuit Rule 26.1(b). BIO is a non-profit trade association and the world's largest biotechnology organization, with more than 1,100 members worldwide. In the United States, the biotechnology industry contributes nearly $90 billion to the nation's Gross Domestic Product and directly employs 1.4 million people, including 100,000 within the industrial biotechnology sector. Within BIO's broad membership, more than 85 industrial biotechnology companies are leading the way toward production of conventional and advanced biofuels and other sustainable energy solutions.

Growth Energy has no parent companies, and no publicly-held company has a 10% or greater ownership interest. It has not issued

shares or debt securities to the public. Growth Energy is a trade association within the meaning of D.C. Circuit Rule 26.1(b). It is a non-profit corporation committed to the promise of agriculture and growing America's economy through cleaner, greener energy. Growth Energy was formed in 2009, and its members include firms that produce ethanol, as well as other companies who provide equipment and technology used to produce ethanol from corn.

Renewable Fuels Association ("RFA") has no parent company, and no publicly-held company has a 10% or greater ownership interest. It has not issued shares or debt securities to the public. RFA is a trade association within the meaning of D.C. Circuit Rule 26.1(b). RFA was founded in 1981, and is a non-profit trade association representing companies that produce fuel ethanol for purposes of marketing that product to blenders and marketers of gasoline.

Respectfully submitted,

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February 11, 2014

CERTIFICATE AS TO PARTIES, RULINGS AND RELATED CASES

The following list of parties to this case, rulings under review, and related cases are provided pursuant to Circuit Rule 28(a)(1):

(A) ***Parties and Amici***. This is a matter on petition for review of an agency action undertaken by the United States Environmental Protection Agency. There was no action in the district court, and so there were no parties in the district court. The parties are:

> Petitioners: Monroe Energy LLC (No. 13-1265); American Petroleum Institute (No. 13-1267); American Fuel & Petrochemical Manufacturers (No. 13-1268)
>
> Petitioner-Intervenor: PBF Holding Company LLC
>
> Respondent: United States Environmental Protection Agency
>
> Respondent-Intervenors: National Biodiesel Board, Biotechnology Industry Organization, Growth Energy and Renewable Fuels Association

(B) ***Rulings Under Review.*** The agency action under review is EPA's final action entitled "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards; Final Rule," 78 Fed Reg. 49,794 (Aug. 15, 2013).

(C) ***Related Cases.*** This case was not previously before this Court or any other court. *Monroe Energy, LLC v. EPA*, No. 14-1014

(D.C. Cir., filed January 28, 2014) is currently pending and may be related within the meaning of this Court's Rule 28(a)(1)(C). That petition challenges 40 C.F.R. §80.1406, promulgated in EPA's 2010 rule, *Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program*, 75 Fed. Reg. 14,670 (Mar. 26, 2010).

TABLE OF CONTENTS

Page

RULE 26.1 DISCLOSURE STATEMENTS C-1

CERTIFICATE AS TO PARTIES, RULINGS AND RELATED CASES C-5

TABLE OF AUTHORITIES iv

GLOSSARY OF ACRONYMS AND ABBREVIATIONS ix

INTRODUCTION 1

JURISDICTIONAL STATEMENT 2

STATUTES AND REGULATIONS 2

STATEMENT OF FACTS 2

A. The RFS Program 2

B. The RIN Program 4

C. The Asserted E10 "Blendwall" 5

D. EPA's Annual Volume Standards 8

SUMMARY OF ARGUMENT 9

ARGUMENT 11

I. EPA'S 2013 RFS STANDARDS PROPERLY IMPLEMENT THE MINIMUM VOLUMES ESTABLISHED BY CONGRESS 11

A. Monroe and PBF Cannot Challenge the RIN Credit System in this Litigation 11

1. Monroe and PBF lack standing to challenge the behavior of third parties affecting RIN prices or availability 12

2. Challenges to EPA's imposition of obligations on refiners are jurisdictionally out of time 15

B. EPA's 2013 Standards Implement the Statutory Command to "Ensure" that "At Least" the Enumerated Volumes are Met 16

C. EPA's 2013 Standards Do Not Require "Refiners to Demonstrate that Blenders have Blended More Ethanol Than They Can or Will Blend" 19

1. No Petitioner alleges insufficient renewable fuels are available 19

2. Monroe's and PBF's arguments about the structure and operation of the RIN market lack merit 22

3. The advanced biofuel standard for 2013 is not challenged here, and must be upheld in any event 25

II. EPA'S ADJUSTMENTS IN LIGHT OF UNDISPUTED EIA PROJECTIONS "ENSURE[D]" THE VOLUMES ARE MET AND DID NOT DEPRIVE ANY PARTY OF "NOTICE" 26

III. EPA'S WAIVER AUTHORITY IS NOT AT ISSUE 29

A. EPA's "General" Waiver Authority under 42 U.S.C. §7545(o)(7)(A) is Not at Issue and, in Any Event, Not Applicable 30

1. There is no decision on a waiver petition before this Court 30

2. There is no issue of "inadequate domestic supply," in any event 31

B. EPA Authority to Waive *Statutory* Volumes Applies in Limited Circumstances Not Present Here 34

1. Congress imposed substantial limits on EPA's ability to reduce the *statutory* volumes 35

2. Broad discretion to consider the "blendwall" and other policy concerns is inconsistent with the text and structure of 42 U.S.C. §7545(o)(7)(D) 38

C. Broad Discretion to Consider the Blendwall and Similar Policy Factors is Inconsistent with the Purposes of EISA 41

IV. EPA'S DELAY IN PROMULGATING THE FINAL RULE DOES NOT ELIMINATE ITS DUTY TO ENSURE COMPLIANCE WITH STATUTORY MINIMUM VOLUME REQUIREMENTS, NOR DOES IT EXCUSE OBLIGATED PARTIES FROM COMPLIANCE 44

CONCLUSION 48

CERTIFICATE OF COMPLIANCE PURSUANT TO FRAP 32(A)(7) 49

STATUTORY AND REGULATORY ADDENDUM

CERTIFICATE OF SERVICE

TABLE OF AUTHORITIES*

Page

FEDERAL CASES

Allen v. Wright,
468 U.S. 737 (1984) 13

Am. Farm Bureau Fed'n v. EPA,
559 F.3d 512 (D.C. Cir. 2009) 28

Am. Road & Transp. Builders Ass'n v. EPA,
588 F.3d 1109 (D.C. Cir. 2009) 16

**API v. EPA*,
706 F.3d 474 (D.C. Cir. 2013) 10, 23, 25, 28, 38

Appalachian States Low-Level Radioactive Waste Comm'n v. O'Leary, 93 F.3d 103 (3rd Cir. 1996) 36

Bowen v. Georgetown Univ. Hosp.,
488 U.S. 204 (1988) 46

Chamber of Commerce of the U.S. v. EPA,
642 F.3d 192 (D.C. Cir. 2011) 14

Chem. Waste Mgmt. v. EPA,
869 F.2d 1526 (D.C. Cir. 1989) 46

Crete Carrier Corp. v. EPA,
363 F.3d 490 (D.C. Cir. 2004) 14

Doe v. Chao,
540 U.S. 614 (2004) 34

EME Homer City Generation, L.P. v. EPA,
696 F.3d 7 (D.C. Cir. 2012), *cert. granted* 133 S.Ct. 2857 (2013) 41

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* Authorities chiefly relied upon are indicated by an asterisk.

Environmental Integrity Project v. EPA,
425 F.3d 992 (D.C. Cir. 2005) 29

Erlenbaugh v. U.S.,
409 U.S. 239 (1972) 37

Gulf Oil Corp. v. Copp Paving Co.,
419 U.S. 186 (1974) 34

Illinois Bell Tel. Co. v. FCC,
911 F.2d 776 (D.C. Cir. 1990) 25

Motion Picture Ass'n of Am. v. FCC,
309 F.3d 796 (D.C. Cir. 2002) 37

Motor & Equip. Mfrs. Ass'n v. Nichols,
142 F.3d 449 (D.C. Cir. 1998) 15

N.E. Md. Waste Disposal Auth. v. EPA,
358 F.3d 936 (D.C. Cir. 2004) 26

Nat'l Cable v. FCC,
567 F.3d 659 (D.C. Cir. 2009) 46

National Chicken Council v. EPA,
687 F.3d 393 (D.C. Cir. 2012) 14

National Wrestling Coaches Ass'n v. Dep't of Education,
366 F.3d 930 (D.C. Cir. 2004) 14

New Jersey v. EPA,
517 F.3d 574 (D.C. Cir. 2008) 37

Newspaper Ass'n of Am. v. Postal Regulatory Comm'n,
734 F.3d 1208 (D.C. Cir. 2013) 25

Novelty, Inc. v. DEA,
571 F.3d 1176 (D.C. Cir. 2009) 41

**NPRA v. EPA*,
630 F.3d 145 (D.C. Cir. 2010), *reh'g denied*, 643 F.3d 958 (D.C. Cir. 2011), *cert. denied*, 132 S.Ct. 571 (2011) 11, 16, 17, 44, 45, 46

S. Coast Air Quality Mgmt. Dist. v. EPA,
472 F.3d 882 (D.C. Cir. 2006) 44

Sierra Club v. EPA,
292 F.3d 895 (D.C. Cir. 2002) 12

Simon v. Eastern Kentucky Welfare Rights Organization,
426 U.S. 26 (1976) 13

Sosa v. Alvarez–Machain,
542 U.S. 692 (2004) 33

U.S. v. Atlantic Research Corp.,
551 U.S. 128 (2007) 36

Whitman v. Am. Trucking Ass'ns,
531 U.S. 457 (2001) 41

FEDERAL STATUTES

42 U.S.C. §7545(d)(1) 42

42 U.S.C. §7545(m)(3)(C) 33

42 U.S.C. §7545(o)(1)(A) 20

42 U.S.C. §7545(o)(1)(L) 2, 20

*42 U.S.C. §7545(o)(2)(A) 2, 16, 19, 22, 25, 29, 32, 38, 45

42 U.S.C. §7545(o)(2)(B) 3, 8, 36, 46

42 U.S.C. §7545(o)(3)(B) 1, 8, 17, 22

42 U.S.C. §7545(o)(3)(C) 22

42 U.S.C. §7545(o)(5) 2, 15, 24

*42 U.S.C. §7545(o)(7) 34, 35, 38

*42 U.S.C. §7545(o)(7)(A) 10, 30, 31, 32, 34, 36

42 U.S.C. §7545(o)(7)(B) 30

42 U.S.C. §7545(o)(7)(C) 30

*42 U.S.C. §7545(o)(7)(D) 8, 10, 24, 35, 36, 38, 39

42 U.S.C. §7545(o)(8)(B) 33

42 U.S.C. §7545(o)(9) 22

42 U.S.C. §7607 15

Pub. L. No. 109-58, 119 Stat. 594 (2005) 2

Pub. L. No. 110-140, 121 Stat. 1492 (2007) 1, 2, 6, 17, 18, 41, 46

ADMINISTRATIVE MATERIALS

40 C.F.R. §80.1415 5

40 C.F.R. §80.1426 ..... 3, 4

40 C.F.R. §80.1428(b) 4

40 C.F.R. §80.1429 ..... 4, 5, 24

72 Fed. Reg. 23,900 (May 1, 2007) 4, 15

73 Fed. Reg. 47,168 (Aug. 13, 2008) 44

75 Fed. Reg. 14,670 (Mar. 26, 2010) 4, 7, 15

76 Fed. Reg. 38,844 (July 1, 2011) 18

77 Fed. Reg. 1320 (Jan. 9, 2012) 23, 42

77 Fed. Reg. 59,458 (Sept. 27, 2012) 9, 18, 46

77 Fed. Reg. 70,752 (Nov. 27, 2012) 4, 31, 43

EPA, *2012 RFS2 Data: Total Available RINs to Date*, http://www.epa.gov/otaq/fuels/rfsdata/2012emts.htm (as of Jan. 7, 2014) 3

EPA, *2013 RFS2 Data: RINs Generated* http://www.epa.gov/otaq/fuels/rfsdata/2013emts.htm (as of Jan. 7, 2014) 3, 21

LEGISLATIVE HISTORY MATERIALS

H.R. 6, 109th Cong., §1501(a)(2) (2005) 33

H.R. Rep. No. 109-90 (2005) 33

S. Rep. No. 110-65 (2007) 5, 17

Alternative Fuels: Current Status, Proposals for New Standards, and Related Infrastructure Issues: Hearing Before the Subcomm. on Energy and Air Quality of the H. Comm. on Energy and Commerce, 110th Cong. (May 8, 2007) (statement of A. Karsner) 42

OTHER AUTHORITIES

D.C. Cir. R. 28(a)(7) 12

http://www.merriam-webster.com/dictionary/supply 31

Final Br. for Respondent, *API v. EPA*, No. 12-1139 (D.C. Cir. Oct. 9, 2012) 9

Joint Stipulation of Dismissal, Nos. 12-1464 and 12-1465 (D.C. Cir. Nov. 20, 2013) 9

GLOSSARY OF ACRONYMS AND ABBREVIATIONS

Pursuant to Circuit Rule 28(a)(3), the following acronyms and abbreviations are used in this brief:

AFPM or NPRA	Petitioner American Fuel & Petrochemical Manufacturers (formerly National Petrochemical Refiners Association)
API	Petitioner American Petroleum Institute
EIA	Energy Information Administration
EISA	Energy Independence and Security Act of 2007, Pub. L. No. 110-140, 121 Stat. 1492
EPA	United States Environmental Protection Agency
JA__	Citations to the Joint Appendix, filed December 9, 2013
Monroe	Petitioner Monroe Energy, LLC
PBF	Petitioner-Intervenor PBF Holding Company, LLC
RFS	Renewable Fuel Standard program
RIN(s)	Renewable Identification Number(s)
SA__	Citations to Respondent-Intervenors' Supplemental Appendix, filed February 11, 2014

INTRODUCTION

Congress determined that promoting renewable fuels is critical to national environmental, energy, and security goals. Pub. L. No. 110-140 §806(a)(4), 121 Stat. 1492, 1722 (2007). Under the Renewable Fuel Standard program (RFS), Congress directed EPA to ensure that specified *minimum* volumes of renewable fuel, including advanced biofuels such as cellulosic biofuel and biomass-based diesel, be sold or introduced into the transportation fuel supply.

Since inception, obligated parties have opposed the RFS, even asking for its repeal. JA500. Challenges have been brought every year to the standards effectuating Congress's directive. Each has largely questioned Congress's policies in the guise of challenging EPA's regulations. Here, petitioners principally dispute which among them should have to comply with Congress's mandate. Those arguments concern EPA's 2007 and 2010 regulations implementing the statute, 42 U.S.C. §7545(o)(3)(B)(ii)(I), and are not implicated by the 2013 standards. As EPA anticipated, the renewable fuel industry produced more than enough ethanol, biodiesel, renewable diesel and other

biofuels to meet the 2013 renewable fuel and advanced biofuel volumes. The petitions must be denied.

JURISDICTIONAL STATEMENT

This Court lacks jurisdiction over some or all of the issues raised. *See* Argument §I.A; EPA Br. 29-30.

STATUTES AND REGULATIONS

Relevant provisions are provided in the addendum to this brief.

STATEMENT OF FACTS

A. The RFS Program

Congress's 2007 amendments to the RFS program significantly expanded the scope of that program in certain ways relevant here.

First, believing that the statutory minimum volumes enacted in 2005 were too low, Congress imposed new minimum volumes that increase until 2022, after which time EPA sets the volumes. *Compare* 119 Stat. 1069, *with* 121 Stat. 1522. *Second*, Congress expanded the RFS program from gasoline into all transportation fuel—including diesel—and allowed biofuels used in heating oil and jet fuel to obtain credits. *See* 42 U.S.C. §7545(o)(1)(L), (o)(2)(A)(i), (o)(5)(E). *Third*, Congress created specific categories within the "renewable fuel" category, requiring "advanced biofuel" including "cellulosic biofuel" and

"biomass-based diesel." *id.* §7545(o)(2)(B)(i)(II)-(IV). Congress sought fuel diversification to *move away from* petroleum. JA217.

The "renewable fuel" and "advanced biofuels" requirements can be met by any combination of ethanol and other qualifying biofuels. In addition to ethanol, cellulosic diesel, biodiesel, renewable diesel, and biogas, for example, have continued to grow since 2005. 40 C.F.R. §80.1426, Table 1; JA809-JA810. EPA continues to approve new fuels, feedstocks and processes. JA157-JA158, JA216-JA217.

There has also been excess production each year of the program. Refiners have access to over 2.5 billion ethanol-equivalent gallons from 2012.[1] And in 2013, over 3.2 billion ethanol-equivalent gallons of advanced biofuels were produced (2.75 billion were required) and 16.58 billion ethanol-equivalent gallons of renewable fuels overall were produced (16.55 billion were required).[2] The program is working.

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[1] EPA, *2012 RFS2 Data: Total Available RINs to Date*, http://www.epa.gov/otaq/fuels/rfsdata/2012emts.htm (as of Jan. 7, 2014).
[2] EPA, *2013 RFS2 Data: RINs Generated* http://www.epa.gov/otaq/fuels/rfsdata/2013emts.htm (as of Jan. 7, 2014).

B. The RIN Program

In 2007, with obligated parties' input, EPA established Renewable Identification Numbers—RINs—to track RFS compliance. 72 Fed. Reg. 23,900, 23,902, 23,940-23,941, 23,945, 23,987 (May 1, 2007). Obligated parties were defined as refiners, importers and certain blenders, and must comply with renewable volume obligations by obtaining RINs. *Id.* at 23,908-23,909. When EPA implemented Congress's 2007 amendments to the RFS, it retained the same main aspects of the RIN system. 75 Fed. Reg. 14,670, 14,684 (Mar. 26, 2010).

Renewable fuel producers generate RINs at production, 40 C.F.R. §80.1426(a), not at blending, as PBF and Monroe erroneously suggest, PBF Br. 14, Monroe Br. 4. RINs are "assigned" to renewable fuel until "separated" to be traded or used for compliance. 40 C.F.R. §§80.1426(e), 80.1428(b), 80.1429. There is a secondary market for separated RINs, and neither Monroe nor PBF has provided evidence of RIN "hoarding." *See* 77 Fed. Reg. 70,752, 70,759 (Nov. 27, 2012) ("[T]he empirical data does not support the theory that obligated parties are over-complying to the maximum extent that they can bank RINs ...").

Neither is blending required to obtain "transferable credits." *Cf.* Monroe Br. 4. Blending renewable fuel into gasoline is one way to separate RINs. 40 C.F.R. §80.1429(b)(2).[3] Using renewable fuel as transportation fuel, heating oil or jet fuel, *without further blending*, is another. *Id.* §80.1429(b)(4)-(5). *All* obligated parties must separate RINs upon *ownership* of renewable fuel. *Id.* §80.1429(b)(1).

C. The Asserted E10 "Blendwall"

PBF and Monroe describe an "ethanol blendwall" as a technological and regulatory constraint, and a fundamental assumption underlying the RFS statutes, such that "ethanol content in gasoline is limited, as a practical matter, to approximately 10% by volume."[4] PBF Br. 9-10; Monroe Br. 7-8. It is none of those things.

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[3] Monroe incorrectly states that "[e]ach RIN represents a blender's *use* of one gallon of renewable fuel." Monroe Br. 4. RINs represent *production*. Biofuels with higher energy content, such as biodiesel and renewable diesel, generate additional RINs. 40 C.F.R. §80.1415. For example, each gallon of biodiesel generates 1.5 RINs.

[4] PBF implies biodiesel is "limited" to 5% blends with diesel. PBF Br. 9 n.5 (citing JA63-JA64). B100 is an approved transportation fuel, >B5 blends are abundant, and biodiesel is used in heating oil. JA212-JA213; S. Rep. No. 110-65 at 2 (2007). Biomass-based diesel production has exceeded the mandated volumes each year, and infrastructure has developed in response. JA211-JA213.

To the extent Monroe suggests that a "blendwall" is embodied or assumed in the statute, it is fundamentally mistaken. Monroe asserts, with no citation, that "[w]hen Congress enacted the statute, it did not anticipate that the blendwall would be reached." Monroe Br. 8; *see also* PBF Br. 10. Congress enacted EISA to move the country away from petroleum dependency and to spur development of renewable fuels. 121 Stat. 1492, 1722. Congress set a schedule of accelerating increases in minimum volumes of renewable fuels through 2022, 121 Stat. 1522, without any indication that it intended or contemplated that an artificial cap on the ethanol content of gasoline would persist in perpetuity. No such cap exists. Indeed, the so-called E10 "blendwall" is largely beside the point here, as Congress enacted no volume requirement specific to ethanol. Any notion that Congress intended for biofuels to make up only 10% of the content of liquid fuels distributed in the United States is inconsistent with the statute, which seeks to foster U.S. energy independence by moving away from foreign petroleum altogether.

Second, fuels with ethanol concentrations higher than 10% exist, as do millions of cars that use those fuels. More than 15 million "flex

fuel" vehicles—designed to use up to 85% ethanol—are on the roads in the United States. JA166; *see also* SA-1145; JA679. More than 30% of model-year 2013 light-duty vehicles include explicit warranty coverage of up to 15% ethanol. JA166.

Finally, any infrastructure barriers to wider availability of gasoline with higher than 10% ethanol content are largely of the obligated parties' making. JA166-JA167. All concerned have known since at least 2007 of the accelerating schedule of volume requirements, which might increase economic incentives to use gasoline with more than 10% ethanol. *See* 75 Fed. Reg. at 14,759. In 2010, EPA provided a detailed assessment of costs to modernize fuel distribution to accommodate higher-ethanol blends, and explained how relatively small investments could overcome the so-called blendwall. *See* JA166-JA167 (citing EPA's Regulatory Impact Analysis).

While Monroe and PBF complain about structural features of the RFS, both made their acquisitions *after* the 2010 RFS implementing rule issued. Monroe purchased and upgraded a refinery, pipelines and terminal assets in 2012. PBF acquired and upgraded three refineries in 2010 and 2011, recognizing that the RFS may require purchase of

credits *or capital expenditures*.[5] Monroe admits that ethanol is "cheaper than petroleum blendstock." Monroe Br. 11. Both Monroe and PBF chose to rely on separated RINs to fulfill their statutory and regulatory obligations. Monroe Br. 10; PBF Br. 8.

D. EPA's Annual Volume Standards

Each year, EPA translates the *minimum* applicable volumes into percentages based on transportation fuel projected to be sold in the U.S. 42 U.S.C. §7545(o)(2)(B), (o)(3)(B)(i). EPA provides notice and comment on any required reduction of the cellulosic biofuel volume under 42 U.S.C. §7545(o)(7)(D). If the cellulosic biofuel volume is reduced, EPA "may" reduce the renewable fuel and advanced biofuel volumes to the same extent.[6] *Id.*

When considering the renewable fuel and advanced biofuel volumes for 2012, "EPA examined historical trends, projections by

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[5] PBF Energy Inc. 2012 10-K, at 1, 13, *available at* http://investors.pbfenergy.com/phoenix.zhtml?c=250880&p=proxy.

[6] EPA's description of its authority under that provision, *e.g.*, EPA Br. 5, 9-10, 16-18, is overbroad. For purposes here, the statute does not permit EPA to reduce the volumes based on considerations respecting the ethanol "blendwall." *See* §III.B., *infra*. Regardless of whether petitioners' "blendwall" arguments were legally irrelevant, §III.B, or merely unpersuasive (as EPA found), Respondent-Intervenors and EPA agree that EPA's decision not to reduce the volumes must be upheld.

various entities, including the EIA, and other available information regarding the potential for these biofuels to be produced in sufficient quantities to satisfy the unmodified ... applicable volume, and concluded that a change ... was not necessary." Final Br. for Respondent, *API v. EPA*, No. 12-1139, at 38 (D.C. Cir. Oct. 9, 2012) (citation omitted). For 2013, EPA similarly determined sufficient volumes should be available, retaining the *statutory* volumes for renewable fuel and advanced biofuel. JA791-JA792.

SUMMARY OF ARGUMENT

Petitioners raise several issues that are not presented in EPA's 2013 standards, foreclosed by the statutory text, or indistinguishable from arguments this Court has previously rejected. Each should be rejected here.[7]

First, Monroe's and PBF's complaints about EPA's 2007 and 2010 implementation of the RIN system and actions of third parties under

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[7] On February 4, 2014, EPA filed an unopposed motion to sever and stay the challenges to the 2013 cellulosic biofuel standard in these cases. Further, the 2013 biomass-based diesel volume is not at issue here. EPA set that volume in a separate action no longer subject to challenge. 77 Fed. Reg. 59,458, 59,483 (Sept. 27, 2012); Joint Stipulation of Dismissal, Nos. 12-1464 and 12-1465 (D.C. Cir. Nov. 20, 2013).

that system are unredressable and untimely in this action. Even if the Court reaches the merits, there is nothing arbitrary and capricious about EPA's decision to follow the statutory command to "ensure" that "at least" the enumerated volumes are met. No party makes any argument (nor could it) that insufficient renewable and advanced biofuel supply was available for 2013, and EPA's further consideration of RIN availability ultimately benefited obligated parties.

Second, petitioners' arguments regarding EPA's consideration of updated EIA projections fail to distinguish *API v. EPA*, 706 F.3d 474 (D.C. Cir. 2013) (*API*), which rejected virtually identical arguments. Nothing in EPA's approach merits (or permits) reexamination of that decision here.

Third, Monroe's and PBF's arguments regarding EPA's waiver authority grossly misread the statute and attempt to shoehorn irrelevant policy considerations into narrow statutory provisions. EPA's general waiver authority under 42 U.S.C. §7545(o)(7)(A) is not implicated in this case. With respect to §7545(o)(7)(D) (for when EPA reduces the cellulosic biofuel volume), EPA took the same approach to

advanced biofuel and renewable fuel here as this Court upheld for 2012 in *API*.

Finally, this Court previously rejected petitioners' arguments about EPA's "tardiness" for reasons equally applicable here. *NPRA v. EPA*, 630 F.3d 145 (D.C. Cir. 2010), *reh'g denied*, 643 F.3d 958 (D.C. Cir. 2011), *cert. denied*, 132 S.Ct. 571 (2011) (*NPRA*). Petitioners should not be permitted to raise the same arguments in search of a different answer from a different panel.

ARGUMENT

I. EPA'S 2013 RFS STANDARDS PROPERLY IMPLEMENT THE MINIMUM VOLUMES ESTABLISHED BY CONGRESS

A. Monroe and PBF Cannot Challenge the RIN Credit System in this Litigation

Monroe's principal argument is that EPA required refiners "to acquire RINs ... in excess of what the economy is actually capable of absorbing." Monroe Br. 14. Monroe asserts that "independent refiners" must purchase RINs from other obligated parties, sometimes at prices refiners find inconvenient. Distilled to their essence, however, Monroe's, and PBF's, claimed injuries are the result of EPA's choices in 2007 and 2010 regarding the structure of the RIN system, and of the behavior of third parties (e.g., "banking RINs"), in response to economic

incentives, *id.* at 14-19.[8] To the extent Monroe or PBF challenges the placement of the compliance obligation on refiners, that is not at issue here—and, Monroe has filed a new petition addressing *that* issue.[9] To the extent that Monroe's and PBF's arguments depend on the behavior of third parties, they lack standing.

1. Monroe and PBF lack standing to challenge the behavior of third parties affecting RIN prices or availability

Petitioners must demonstrate standing in their opening briefs by providing "specific facts" through "affidavits or other evidence" showing a "substantial probability" that the relief they seek would redress their injury, *Sierra Club v. EPA*, 292 F.3d 895, 898-99 (D.C. Cir. 2002) (citations omitted)[10]; D.C. Cir. R. 28(a)(7). Monroe states only in conclusory fashion that it "is obligated under the 2013 Rule to submit

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[8] Petitioner-Intervenor PBF did not comment on the proposal and bases its standing on Monroe, and thus lacks standing for the same reasons Monroe does.

[9] Respondent-Intervenors take no position here on Monroe's newly-filed petition, but it is not presented as part of *this* proceeding.

[10] API/AFPM present no evidence of any member's "injury in fact." Although they complain that the final percentages increased, this was due to *reduced* gasoline and diesel production estimates. The total statutory volume obligation is the same, and individual obligations also may be the same or negligibly different.

RINs," and has "[t]herefore ... suffered an injury in fact traceable to the 2013 Rule, that can be remedied by the vacatur Monroe requests." Monroe Br. 13. Monroe's brief makes clear that its claimed injury is the result of actions by third parties in response to economic and regulatory incentives—such as "banking" or "hoarding" RINs, *id.* at 14-17, or offering them at prices Monroe finds undesirable. *Id.* at 18; *see also* PBF Br. 8, 13-15. This Court and the Supreme Court have consistently rejected such theories of standing premised on seeking relief that might indirectly influence the behavior of third parties by altering their incentives.

The 2013 standards do not regulate RIN prices or "banking" or sale of RINs. While Monroe must submit RINs to demonstrate compliance, that does not permit Monroe to challenge EPA's implementation of the required volumes on the basis of others' "banking" or selling RINs. *Simon v. Eastern Kentucky Welfare Rights Organization*, 426 U.S. 26, 40-46 (1976) and *Allen v. Wright*, 468 U.S. 737, 757-59 (1984) rejected similar theories of standing to challenge the IRS's treatment of third parties, where causation and redressability

were based on speculation about how third parties might respond to different tax policies.

This Court likewise found standing lacking in *National Chicken Council v. EPA*, 687 F.3d 393, 396-97 (D.C. Cir. 2012), *Chamber of Commerce of the U.S. v. EPA*, 642 F.3d 192, 201-10 (D.C. Cir. 2011), *Crete Carrier Corp. v. EPA*, 363 F.3d 490, 492-94 (D.C. Cir. 2004), and *National Wrestling Coaches Ass'n v. Dep't of Education*, 366 F.3d 930, 939-45 (D.C. Cir. 2004), among others, where petitioners' theories of causation and redressability depended on speculation about how third parties might react to different regulatory incentives. Even speculation with a facially plausible basis in the operation of supply and demand is insufficient. *Nat'l Wrestling Coaches*, 366 F.3d at 943-44; *Crete Carrier*, 363 F.3d at 494 (declining to "wade into this morass of marketplace analysis") (citation omitted). But that is all Monroe offers—that if EPA lowered the 2013 statutory obligations, *maybe* others *might* sell separated RINs more freely and at lower prices. The harm Monroe alleges cannot be redressed through the relief it seeks.

2. Challenges to EPA's imposition of obligations on refiners are jurisdictionally out of time

To the extent Monroe disputes refiners' (as opposed to others') obligation to acquire RINs, Monroe Br. 22-23, EPA made that decision in 2007 and 2010. EPA established the RIN system in 2007, pursuant to a statutory mandate to create a credit program, 42 U.S.C. §7545(o)(5), and defined "obligated parties" as refiners (including certain blenders) and importers of gasoline, 72 Fed. Reg. at 23,908. EPA revisited that decision in 2010. *See* 75 Fed. Reg. at 14,721-14,722.

42 U.S.C. §7607(b)(1) sets a jurisdictional deadline of sixty days from Federal Register publication to petition for review. *Motor & Equip. Mfrs. Ass'n v. Nichols*, 142 F.3d 449, 460 (D.C. Cir. 1998). That deadline has long since passed for EPA's 2007 and 2010 rules, and EPA did not reopen those rules here. Monroe suggests that it may nonetheless dispute EPA's earlier approach here because *commenters* suggested placing the compliance obligation on blenders, and EPA said *in 2010* that it would "consider revisiting" placement of the compliance obligation. Monroe Br. 22-23. But EPA's 2010 statement that it would "consider" revisiting earlier rules does not mean that it did so here, and comments suggesting changes to earlier rules do not reopen the time to

seek judicial review of those rules. *See Am. Road & Transp. Builders Ass'n v. EPA*, 588 F.3d 1109, 1115 (D.C. Cir. 2009).

B. EPA's 2013 Standards Implement the Statutory Command to "Ensure" that "At Least" the Enumerated Volumes are Met

On the merits, Monroe contends that EPA's 2013 standards "advance[] no statutory purpose." Monroe Br. 12; *id.* at 14 (EPA "did not identify any statutory purpose served"). That argument reveals little more than Monroe's disagreement with the program Congress enacted. The statute requires EPA to enforce specific minimum volumes. 42 U.S.C. §7545(o)(2)(A). That is explicit in the statute and repeated in this Court's decisions addressing previous challenges. It is enough that EPA did what Congress commanded.

In *NPRA*, this Court noted that Congress "directed" EPA "to *ensure* that transportation fuel sold or introduced into commerce in the United States ..., on an annual average basis, contains *at least* the applicable volume of" renewable fuel, advanced biofuel, cellulosic biofuel, biomass-based diesel under the statute. 630 F.3d at 147, 149

n.15 (quoting 42 U.S.C. §7545(o)(2)(A)(i))[11]; *see also* 42 U.S.C. §7545(o)(3)(B)(i). Based on the plain meaning of "ensure," EPA must "make certain" the applicable volumes are met. *NPRA*, 630 F.3d at 153. The requirement that "at least" the applicable volumes be sold signals Congress's "intent that volumes not be reduced, at least not in the first decade of the renewable fuel program." *Id.* at 156. Thus, contrary to assertions that EPA provided no "satisfactory explanation" for retaining the statutory volumes, Monroe Br. 15, EPA's statutory obligation is to enforce them.

Citing EPA's preamble for the *initial* RFS program in May 2007, Monroe contends Congress anticipated an "ever-increasing demand for petroleum-based products," which turned out to be erroneous. Monroe Br. 2. But even if that were true, in December 2007, Congress subsequently expanded the RFS, while at the same time requiring improved fuel economy standards to *reduce* gasoline consumption. *See* 121 Stat. 1498-1500; S. Rep. No. 110-65 at 3. Monroe and PBF cite no authority indicating Congress was concerned about having *too much* renewable fuel.

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[11] Quoted emphasis is added unless otherwise indicated.

On the contrary, as EPA has explained, "the RFS program is a long-term program aimed at replacing substantial volumes of fossil-based transportation fuels with low-GHG renewable fuels over a multi-year period of time." JA812. "[T]he purpose of setting a mandate is to stimulate more rapid increases in the rate of production" than may occur absent such mandate. 76 Fed. Reg. 38,844, 38,853 (July 1, 2011). The volumes provide an incentive for continued investment and innovation. 77 Fed. Reg. at 59,462. This, in turn, leads to reduced petroleum emissions and increased energy security benefits. *Id.* Those are the goals of Congress, *see* 121 Stat. 1492, 1722, which EPA effectuated by enforcing the statutory volumes.

In any event, EPA's 2013 standards *do* serve a "statutory purpose." EPA's proposed rule noted that standards that implemented the statutory volume requirements "will result in reduced GHG emissions from the transportation sector and could also contribute to energy security objectives. We do not believe it is appropriate to forgo such benefits when they are physically achievable." JA34; *see also* JA797 & n.12 (citing 2010 discussion of the benefits and impacts of RFS program). Comments confirmed these benefits, including economic

benefits and others. *See, e.g.,* JA155; JA214; JA412-JA413. Indeed, the advanced biofuel and overall renewable fuel volumes were, in fact, *actually achieved,* confirming EPA's determination and meeting Congress's directives

C. EPA's 2013 Standards Do Not Require "Refiners to Demonstrate that Blenders have Blended More Ethanol Than They Can or Will Blend"

1. No Petitioner alleges insufficient renewable fuels are available

As noted, Congress requires at least the applicable volumes of *renewable fuel* in U.S. *transportation fuel.* 42 U.S.C. §7545(o)(2)(A). No petitioner alleges that the required volume of fuel was not, in fact available, nor could they. More than enough gallons of advanced biofuels and renewable fuels were produced. *See, Facts §A, supra.* To assert, as Monroe and PBF do, that Congress intended for biofuels to make up only 10% of the content of liquid fuels distributed in the United States is to ignore the statutory text, which seeks to foster U.S. energy independence.

Petitioners' description of the ethanol "blendwall" is inaccurate and beside the point. There is no technological, legal, or practical "wall" to widespread consumption of gasoline with more than 10% ethanol. As

described above, *Facts §C, supra*, fuels with ethanol concentrations of up to 85% exist, as do millions of cars that can use those fuels. JA166; *see also* SA-1145; JA679. It is thus inaccurate to argue that "ethanol content in gasoline is limited, as a practical matter, to approximately 10% by volume," PBF Br. 9, or that the "blendwall" is somehow embodied or assumed in the statute. *Facts §C, supra.*

Perhaps more fundamentally, the purported ethanol "blendwall" is beside the point as there is no RFS volume requirement for ethanol. Monroe does not and cannot dispute that other biofuels are available to meet the renewable fuel and advanced biofuel volumes. JA207-JA214; JA216-JA217; JA813-JA814. Congress sought to diversify the use of fuels, including biofuel use in the diesel pool and in the non-road, heating oil and jet fuel markets. 42 U.S.C. §7545(o)(1)(A),(L); JA157-JA158; JA213; JA217; JA230. Indeed, production of some of these other biofuels exceeded EPA's expectations. JA211. Biomass-based diesel represented almost 99% of the required advanced biofuel volume for

2013.[12] These biofuels reduce the effects of the supposed ethanol blendwall. JA817.

To be sure, EPA also considered whether prior-year RINs were available to assist with compliance, but that benefited the obligated parties. Monroe Br. 15; PBF Br. 32-36. The ability to use prior-year RINs reduces the physical volumes required in any given calendar year. JA810. EPA, however, does not *require* use of prior-year RINs—contrary to PBF's assertion. PBF Br. 36. Rather, EPA recognizes that there are other means of compliance, including increased use of E85, and "additional sources for non-ethanol biofuels," such as the unused amount of an estimated 3.6 billion gallon biodiesel production capacity. JA819; JA836. At bottom, the complaint is that RINs were more expensive than parties would have liked, but, as discussed below, that does not render the 2013 regulation arbitrary or capricious.

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[12] EPA reported over 2.71 billion biomass-based diesel RINs for 2013. EPA, *2013 RFS2 Data*, *supra* n.2.

2. Monroe's and PBF's arguments about the structure and operation of the RIN market lack merit

Monroe's and PBF's arguments that EPA's 2013 standards were arbitrary and capricious rely on several misconceptions regarding the statute and regulations.

First, the *statute*, not the 2013 standards, addresses compliance by *refiners*. 42 U.S.C. §7545(o)(2)(A)(ii)(I), (o)(3)(B)(ii)(I) ("The renewable fuel obligation ... shall ... be applicable to refiners, blenders, and importers, as appropriate"). To be sure, Congress directed EPA to "make adjustments ... to prevent the imposition of redundant obligations," *id.* §7545(o)(3)(C)(i), and provided a temporary exemption for small refineries, *id.* §7545(o)(9), but the placement of obligations on refiners is not an arbitrary choice by EPA, and neither Monroe nor PBF points to any evidence in the statute or otherwise that Congress contemplated the EPA should reduce volume requirements or restructure the RIN system on the basis of the grievances Monroe and PBF raise here.

Second, Monroe contends that EPA "bizarrely neglected" incentives of parties to "bank" RINs in "concluding that compliance

would be possible for all parties in 2013." Monroe Br. 16. As described above, Monroe cannot argue that compliance was not, *in fact* possible for all parties in 2013. *See supra* §I.C.1. More fundamentally, however, Monroe's self-serving contention that the credit program was intended to "preserve the natural market forces and blending practices"[13] of independent refiners has no basis in the statute. Monroe Br. 20. Congress created a market for renewable fuels to further investment and innovation in biofuel production, which would create incentives to invest in infrastructure to bring the Congressionally-prescribed volumes of renewable fuel to consumers. *See API*, 706 F.3d at 481 ("[T]o the extent that estimates in the record are relatively low, that seems to be based on want of a market, which of course continued pressure will tend to solve.") (citing 77 Fed. Reg. 1320, 1334-1335 (Jan. 9, 2012)); JA217. While the RIN system provides flexibility in the *manner* of compliance, the fact that some obligated parties refuse to purchase renewable fuel and may thereafter find compliance difficult (because

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[13] Monroe again relies on statements regarding the initial RFS program, before Congress expanded the volumes. Monroe's claim that EPA failed to reconcile 2013 with its own "prior explanation" is simply false. Monroe Br. 21.

separated RINs cost more than they would like) is not an independent reason for EPA to reduce RFS volumes.

In any event, RINs are available, including non-ethanol RINs, and refiners need not rely on blenders to acquire them. *See* 40 C.F.R. §80.1429(b). Monroe and PBF purchased distribution assets with their refineries and upgraded them, and provide no explanation for why they cannot purchase renewable fuel or separate RINs themselves. The harms they complain of provide no basis for challenging EPA's determination in *this* rulemaking.[14]

Finally, Congress considered that some refineries might have lesser access to RINs, and provided accordingly. As part of the required system of tradable credits, Congress permitted refineries to carry a deficit for one year, 42 U.S.C. §7545(o)(5)(D), and provided specifically for cellulosic-biofuel-specific fixed-price credits for years in which cellulosic biofuel production was lower than anticipated. *Id.* §7545(o)(7)(D)(ii). Congress's ultimate directive, however, is to "ensure"

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[14] Monroe cites to a study of the program's economic impacts on small refineries. Monroe Br. 18-19 (citing JA67-JA68). But, Monroe and PBF are among "the largest independent petroleum refiners and suppliers of … petroleum products in the United States." PBF Br. 8.

that the Nation's transportation fuel supply "contains the applicable volume" set by statute. 42 U.S.C. §7545(o)(2)(A)(i).

3. The advanced biofuel standard for 2013 is not challenged here, and must be upheld in any event

No petitioner challenges EPA's decision to implement the advanced biofuels volume requirement provided in the statute. PBF references the advanced biofuel volume, but petitioner-intervenors are "not permitted to enlarge those issues" presented by petitioners. *Illinois Bell Tel. Co. v. FCC*, 911 F.2d 776, 786 (D.C. Cir. 1990) (citation omitted); *see also Newspaper Ass'n of Am. v. Postal Regulatory Comm'n*, 734 F.3d 1208, 1213 n.6 (D.C. Cir. 2013).

Regardless, this Court upheld EPA's similar decision with respect to advanced biofuels in 2012 in *API*, 706 F.3d at 481, for reasons equally applicable here. As the Court found "there appears to be no great obstacle to the *production* of advanced biofuel generally." *Id.* (emphasis in original). The same is true now. JA819-JA820; JA257. Over 3.2 billion advanced biofuel RINs were produced in 2013. EPA's determination regarding the 2013 advanced biofuel volume must be

affirmed in the event the Court concludes that the issue is properly presented.

II. EPA'S ADJUSTMENTS IN LIGHT OF UNDISPUTED EIA PROJECTIONS "ENSURE[D]" THE VOLUMES ARE MET AND DID NOT DEPRIVE ANY PARTY OF "NOTICE"

API/AFPM's principal argument is that EPA impermissibly "increased the RFS" by relying on updated EIA projections about transportation fuel use in 2013 such that the final standards are not a "logical outgrowth" of the proposal. API/AFPM Br. 15-19. But, a rule is a "logical outgrowth" if the parties "should have anticipated that the change was possible." *N.E. Md. Waste Disposal Auth. v. EPA*, 358 F.3d 936, 951-52 (D.C. Cir. 2004) (citation omitted). Although API/AFPM asserts some 24 times that EPA "increased" the RFS without "notice", EPA followed the same methodology it proposed and differed only in that the final standards considered more up-to-date forecasts. The final standards are plainly a "logical outgrowth" of the proposal, and bear no resemblance to the authorities API/AFPM cite for the contrary proposition.

Consistent with the statute and EPA's regulations, EPA's proposal explained it would calculate the percentage for the standards by a

formula that divided the minimum applicable volume by projected petroleum-derived transportation fuel use. JA36 (listing formulas)

For the final standards, EPA applied the same formulas, JA821, using the same statutory minimum volumes, JA795, to arrive at percentages. The only difference is that EPA used updated EIA projections for the denominator.[15] That slight decrease in the denominator caused slight increases in the percentage between the proposal and final standards (*Compare* JA38 tbl.IV.B.3-2, *with* JA823 tbl.IV.B.3-2):

	Proposal A20, tbl. I.B.3-2	Final A795, tbl. I.B.3-2	Change
Renewable fuel	9.63%	9.74%	**+0.12%**
Advanced biofuel	1.60%	1.62%	**+0.02%**
Biomass-based diesel	1.12%	1.13%	**+0.01%**

API/AFPM does not dispute the accuracy of the information EPA relied upon, nor does it dispute the general propriety of relying on EIA

[15] As EPA explains, to the extent it continues to exempt certain small refiners, it must adjust the standards on that basis. EPA Br. 52 n.27. EPA also correctly states that API/AFPM's arguments about the "small refiner" term in the denominator do not support vacating the standards. *Id.* at 52-53. Also, the consideration of updated information led to a *decrease* in the percentage for cellulosic biofuel. *Id.* at 47.

projections.[16] Indeed, API/AFPM concedes that EPA must "base" its standards on projections EIA provides by October 31 of the preceding year. API/AFPM Br. 17 (citing 42 U.S.C. §7545(o)(3)(A)-(B)). In *API*, this Court rejected API's argument that the statutory phrase "based on" "contemplate[d] slavish adherence by EPA" to those projections. 706 F.3d at 478. Rather, the phrase "requir[es] great respect but allow[s] deviation consistent with that respect." *Id.* It shows no lack of "respect" for EIA's earlier projections for EPA to account for updated projections from the same source. Indeed, API and AFPM urged EPA to consider updated information about projected cellulosic production, when the updated information favored their interests. EPA Br. 43-44. It should not be surprising when EPA considers updated EIA forecasts relevant to other categories. As compared to the proposal, EPA used the same minimum applicable volumes of renewable fuel, advanced biofuel and biomass-based diesel, applied the same formulas, and used

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[16] API/AFPM asserts that these changes in percentage requirements are "significant" in some sense (API/AFPM Br. 16 & n.10), but nowhere explains how deviations of hundredths of a percentage point are legally problematic. And even if the arguments had merit, such changes are insufficient to have the whole rule invalidated and to be relieved of all obligations for 2013. *See generally Am. Farm Bureau Fed'n v. EPA*, 559 F.3d 512, 528 (D.C. Cir. 2009).

updated forecasts from the same source (EIA) to arrive at slightly different percentages. That minor change in response to updated information (the accuracy of which API/AFPM does not dispute) is not the sort of adjustment that this Court has rejected under the "logical outgrowth" doctrine. *Cf. Environmental Integrity Project v. EPA*, 425 F.3d 992, 995-96 (D.C. Cir. 2005) (vacating final rule where EPA "*adopted the opposite position*" of proposal as a "surprise switcheroo on regulated entities").

If EPA had not revised the denominator, the updated forecasts indicate that the proposed standards would not have "ensure[d]... at least" the required volumes. 42 U.S.C. §7545(o)(2)(A)(i). The ambiguous phrase "based on" does not require EPA to disregard statutory obligations in the manner petitioners argue.

III. EPA'S WAIVER AUTHORITY IS NOT AT ISSUE

Monroe's argument in passing that EPA somehow had "discretion" to reduce the total renewable fuel volume for 2013 in response to the policy concerns it now advocates is baseless. Monroe airs its generalized grievances with the RFS program and refers to three sources of EPA's "discretion," without connecting the latter to the

former. Monroe Br. 21-23. None of the three sources of "discretion" is applicable. As explained, Monroe's suggestion that EPA could have simply changed its 2007 and 2010 regulations establishing the RIN program is untimely, *supra* §I.A.1, and unsound on the merits, *supra* §I.C.2. Monroe's arguments regarding EPA's waiver authority under 42 U.S.C. §7545(o)(7)(A) and (D) ignore procedural and substantive statutory limits on that discretion.

A. EPA's "General" Waiver Authority under 42 U.S.C. §7545(o)(7)(A) is Not at Issue and, in Any Event, Not Applicable

1. There is no decision on a waiver petition before this Court

Monroe makes passing reference to EPA's waiver authority under 42 U.S.C. §7545(o)(7)(A), but that provision is not at issue here. There was no waiver petition nor motion to reduce the statutory volumes. JA808. At most, Monroe contends that EPA *could* have used this authority, but EPA could not in this proceeding, as it requires specific procedures—notice and comment and consultation with Department Secretaries—not used here. *Id.*; 42 U.S.C. §7545(o)(7)(A)-(C).

Indeed, separately, EPA rejected several petitions to waive national volume requirements for renewable fuel for 2013, finding no

evidence supporting the "blendwall" arguments Monroe makes here. 77 Fed. Reg. at 70,759. EPA's decision to deny those waiver petitions was not challenged, and Monroe cannot raise a backdoor challenge to that decision in the guise of challenging EPA's 2013 standards.

2. There is no issue of "inadequate domestic supply," in any event

In addition to its procedural requirements, 42 U.S.C. §7545(o)(7)(A) permits EPA to waive volume requirements in two limited circumstances, one being when EPA makes "a determination ... that there is an inadequate domestic supply." *Id.* §7545(o)(7)(A)(ii). Although Monroe identifies that provision as a source of "discretion," that provision is inapplicable here. As explained above, §I.C.1, *supra*, Monroe does not and cannot contend that there was an "inadequate domestic supply" of renewable fuel in 2013.

Monroe's suggestion that "inadequate domestic supply" encompasses "blendwall" considerations, Monroe Br. 22, misconstrues the statute and relies on overstatement of the so-called "blendwall." As to the statute, "inadequate domestic supply" plainly refers to available *renewable fuel*. Supply means "the amount of something that is available to be used." *See* http://www.merriam-webster.com/dictionary/

supply. The antecedent for "supply" in 42 U.S.C. §7545(o)(7)(A)(ii) is the "renewable fuel required under paragraph (2)" immediately preceding subsections (i) and (ii). As for "required under paragraph (2)," §7545(o)(2) specifies the "applicable volume of *renewable fuel*." *Id.* §7545(o)(2)(A)(i). This plainly refers to the renewable fuel available for purchase by obligated parties—not finished fuels that contain some fraction of renewable fuels, which are distributed to end-consumers. Even accepting Monroe's description of the purported "blendwall," the "blendwall" refers to alleged practical concerns regarding *distribution* and ultimate *consumption* of renewable fuel—*i.e.*, demand, not supply. Monroe cannot and does not contend that there was any lack of *supply* of renewable fuel.

In addition to the unambiguous statutory text, neighboring statutory provisions, drafting history, and statutory purpose,[17] further refute any suggestion that practical concerns regarding *distribution* and *use* of renewable fuel have any bearing on questions of "inadequate domestic *supply*." Other subsections of 42 U.S.C. §7545 demonstrate that when Congress intended EPA to consider distribution capacity in

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[17] *See* §III.C, *infra*.

addition to supply, it said so. *See, e.g.*, 42 U.S.C. §§7545(m)(3)(C) (waivers for oxygenated gasoline in case of "an inadequate domestic supply of, or distribution capacity for, oxygenated gasoline"); 7545(o)(8)(B) (study to evaluate renewable fuel supplies and prices, blendstock supplies, and "supply *and distribution system capabilities*"). Congress distinguished between "supply" and "distribution" and did not consider the former to encompass the latter. *See Sosa v. Alvarez–Machain,* 542 U.S. 692, 711 n.9 (2004) ("when the legislature uses certain language in one part of the statute and different language in another, the court assumes different meanings were intended") (citation omitted).

If more is needed, Congress considered, and declined to pass, a bill providing for consideration of "distribution capacity" in the general waiver provision. Prior versions would have authorized a waiver if EPA found "an inadequate domestic supply *or distribution capacity to meet the requirement*." *See, e.g.,* H.R. 6, 109th Cong., §1501(a)(2) (2005) (House Passed). The Conference Committee excised the italicized language. H.R. Rep. No. 109-90, at 486 (2005). While not dispositive, the legislative history underscores what is plain and "strongly militates

against a judgment that Congress intended a result that it expressly declined to enact." *Gulf Oil Corp. v. Copp Paving Co.*, 419 U.S. 186, 200 (1974); *see also Doe v. Chao*, 540 U.S. 614, 622-23 (2004) (Privacy Act does not authorize presumed damages because "Congress cut out the very language in the bill that would have authorized any presumed damages."). Because there was an adequate supply of renewable fuel available, 42 U.S.C. §7545(o)(7)(A) does not apply by its own terms.

B. EPA Authority to Waive *Statutory* Volumes Applies in Limited Circumstances Not Present Here

As it has previously, EPA looked at the potential *availability* of other advanced biofuels to make up for the reduced cellulosic biofuel portion and declined to reduce those volumes. 42 U.S.C. §7545(o)(7). EPA's determination to retain the statutory volumes was well within its discretion and previously has been affirmed by this Court as such. EPA's analysis for 2013 must be upheld. Moreover, where EPA did not reduce the volumes on any ground, the Court need not resolve the limits

on EPA's authority to reduce the volumes.[18] Either way, however, Monroe's and PBF's arguments must be rejected.

1. Congress imposed substantial limits on EPA's ability to reduce the *statutory* volumes

EPA authority to waive the renewable fuel and advanced biofuel volumes is limited to a determination of "inadequate domestic supply." Thus, given the more than adequate availability of renewable fuel and advanced biofuel, EPA's determination not to reduce those volumes was not merely reasonable; it was compelled. 42 U.S.C. §7545(o)(7)(D) does not require otherwise.

EPA's limited authority to reduce the statutory volumes is in §7545(o)(7). Subparagraph (D)'s placement within §7545(o)(7) makes clear that EPA's authority to waive the advanced biofuel and renewable fuel volumes is based on the criteria outlined "in general" under Subparagraph (A) (*e.g.,* "inadequate domestic supply"). While Suparagraphs (B) and (C) provide procedures and time limits related to the petitions required under Subparagraph (A), Subparagraphs (D) and (E) provide alternative procedures and criteria for reducing the specific

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[18] In a separate, ongoing proceeding, EPA has proposed to use that authority to reduce volumes for 2014.

volume mandates for cellulosic biofuel and biomass-based diesel. *See Appalachian States Low-Level Radioactive Waste Comm'n v. O'Leary*, 93 F.3d 103, 111 (3rd Cir. 1996) (finding "consecutive subparagraphs must be read together to create a unified statutory scheme"); *see also U.S. v. Atlantic Research Corp.*, 551 U.S. 128, 135 (2007) (reading Subparagraphs together where "Statutes must 'be read as a whole.'") (citation omitted). In short, when EPA determines that cellulosic biofuel *must* be reduced under Subparagraph (D), EPA *may* also reduce the advanced biofuel and renewable fuel volumes on its own motion under Subparagraph (A). 42 U.S.C. §7545(o)(7)(A), (D); *see also id.* §7545(2)(B)(iii)-(iv) ("For the purpose of making the determinations in clause (ii), for each calendar year, the applicable volume of *cellulosic biofuel* established by the Administrator shall be based on the assumption that the Administrator will not need to issue a waiver for such years under paragraph (7)(D)."). The second sentence in Subparagraph (D)(i) does not create brand new authority with respect to advanced biofuels or renewable fuels, but merely clarifies that EPA may (not must) reduce the volumes, if allowed *under Subparagraph (A)*, by the same or a lesser volume as the reduction in the cellulosic biofuel

volume, not more. *New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008) (finding specific provision on electric utilities under 42 U.S.C. §7412(n) did not override general provisions governing delisting). Neither Monroe nor PBF contends inadequate supply existed for 2013.

Subparagraph (D) cannot be read in isolation to give EPA nearly unfettered discretion to reduce the other volumes whenever it concludes it must reduce the cellulosic volume. "[I]ndividual sections of a single statute should be construed together, for it necessarily assumes that whenever Congress passes a new statute, it acts aware of all previous statutes on the same subject." *Erlenbaugh v. U.S.*, 409 U.S. 239, 244 (1972) (citation omitted); *see also Motion Picture Ass'n of Am. v. FCC*, 309 F.3d 796, 801 (D.C. Cir. 2002) ("Statutory provisions *in pari materia* normally are construed together to discern their meaning.") (citations omitted). PBF admits that EPA's authority under Subparagraph (D) of this provision is not boundless and "must be read in [its] context and with a view to [its] place in the overall statutory scheme." PBF Br. 22 (quoting *Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 666 (2007)). Where PBF goes wrong is in arguing EPA set the volume only at the "projected volume available."

PBF Br. 23-25. This Court rejected that notion in *API*, holding "[n]othing in the text of §7545(o)(7)(D)(i), or any other applicable provision of the Act, plainly requires EPA to support its decision not to reduce the applicable volume of advanced biofuels with specific numerical projections." 706 F.3d at 481.

2. Broad discretion to consider the "blendwall" and other policy concerns is inconsistent with the text and structure of 42 U.S.C. §7545(o)(7)(D)

The text and structure of Subparagraph (D) itself also demonstrate that the cellulosic-biofuel-specific waiver provision is not a broad grant of discretion to consider the "blendwall" or other unrelated policy arguments. Rather, the waiver provisions of 42 U.S.C. §7545(o)(7) are limited exceptions to EPA's baseline obligation to "ensure" that Congressionally prescribed *minimum* volumes are met each year. 42 U.S.C. §7545(o)(2)(A)(i).

"Cellulosic biofuel" is a subset of "advanced biofuel," which is, in turn, a subset of "renewable fuel." *See* EPA Br. 3-4. Subparagraph (D) is implicated only when the "projected volume of cellulosic biofuel production" is lower than the statutory minimum for that year. 42 U.S.C. §7545(o)(7)(D). So, for example, if EPA projected 1 billion

gallons of cellulosic biofuel production for 2013 (the statutory minimum volume), there would be no shortfall, and EPA would indisputably not have authority to make *any* reduction of the cellulosic biofuel, advanced biofuel, or renewable fuel categories under §7545(o)(7)(D) for *any* reason. The adequacy of projected cellulosic biofuel production would be the beginning and the end of the analysis.

If there is a projected shortfall in cellulosic production, EPA must reduce the cellulosic volume requirement "to the projected volume available during that calendar year." 42 U.S.C. §7545(o)(7)(D). No higher, but also no lower. *If*, and only if, EPA reduces the cellulosic volume, EPA "*may* also reduce the applicable volume of renewable fuel and advanced biofuels requirement" by *the same or a lesser volume of the waived amount. Id.*

EPA notes that Subparagraph (D) does not prescribe *in haec verba* the criteria on which EPA must decide whether and how much to reduce the broader categories of renewable fuel when it has reduced the cellulosic biofuel volume. EPA Br. 9-10. It does not follow, however, that 42 U.S.C. §7545(o)(7)(D)(i) permits EPA to reduce the broader categories for any reason it wants, nor, as EPA suggests, that EPA

enjoys discretion to determine the scope of its own discretion. EPA Br. 10 ("EPA thus exercised its discretion to identify and consider pertinent criteria."). Rather, the relevant criteria are apparent, at a minimum, in the text and structure of Subparagraph (D), and concern adequate *supply* of renewable fuel, not wholly unrelated policy considerations such as the purported "blendwall" or RIN prices.

It makes sense that EPA may reduce the advanced biofuel and renewable fuel volumes by "the same or lesser volume" as a projected shortfall in cellulosic biofuel production because cellulosic biofuel is a subset of the broader categories; however, a shortfall in projected cellulosic biofuel production may or may not, in fact, translate into a shortfall of "the same or lesser volume" in the broader categories, *depending on the availability of other fuels.* Whether a shortfall in projected cellulosic biofuel production translates into a shortfall of "the same or lesser volume" in the broader categories does not, however, depend on the policy issues Monroe and PBF raise. It makes no sense for those considerations to enter the analysis in the context of a waiver provision that applies only in the event of a projected shortfall in

cellulosic biofuel production, and only to the *extent* of a projected shortfall in cellulosic biofuel production.

The cellulosic-specific safety valve would be an odd place to bury a broad grant of power. The Supreme Court and this Court have rejected those sorts of interpretations, and the Court should do the same here. *EME Homer City Generation, L.P. v. EPA*, 696 F.3d 7, 28 (D.C. Cir. 2012), *cert. granted* 133 S.Ct. 2857 (2013); *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 468 (2001) (Congress "does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions").

C. Broad Discretion to Consider the Blendwall and Similar Policy Factors is Inconsistent with the Purposes of EISA

Among EISA's enumerated purposes is "increas[ing] the production of clean renewable fuels." 121 Stat. 1492. To allow EPA to waive the *minimum* applicable volumes on the basis of considerations found nowhere in the statute would run counter to its explicit purposes. *See generally Novelty, Inc. v. DEA*, 571 F.3d 1176, 1183-84 (D.C. Cir. 2009) (agency appropriately considered statutory purpose in

interpreting a provision). EPA recognized as much in setting the 2012 standards, upheld by this Court. *See* 77 Fed. Reg. at 1331-1332.

Congress pursued that purpose through a finely calibrated system of incentives and penalties to increase production and use of renewable fuel and—to ensure the goals were actually met and not thwarted by foot-dragging—to back its program up with real consequences. Congress knew when it enacted the RFS program in 2005 and revised it in 2007, that there were infrastructure challenges,[19] and thus adopted a schedule of increasing minimum volume requirements—from 4 billion gallons in 2006 to 36 billion gallons in 2022—to spur the U.S. fuel industry to ramp up its capabilities incrementally each year.

Congress intended, however, that obligated parties actually comply, and thus backed up its RFS program with real consequences, such as civil penalties of up to "$25,000 for every day of such violation and the amount of economic benefit or savings resulting from the violation." 42 U.S.C. §7545(d)(1). Where the statute is replete with

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[19] *See, e.g.*, *Alternative Fuels: Current Status, Proposals for New Standards, and Related Infrastructure Issues: Hearing Before the Subcomm. on Energy and Air Quality of the H. Comm. on Energy and Commerce*, 110th Cong. (May 8, 2007) (statement of A. Karsner).

measures to ensure actual attainment of the program's goals, it is implausible to suppose that Congress intended to grant EPA the authority to undo the entire scheme with the phrase "inadequate domestic supply" in Subparagraph (A) or "may also reduce" in Subparagraph (D). Obligated parties have been aware of the purported ethanol blendwall "since passage of EISA in December of 2007," 77 Fed. Reg. at 70,773, and have now had more than six years to work with other participants to develop the necessary distribution infrastructure. As described above, gasoline with ethanol content above 10% exists, as do millions of cars that can run on it, and other biofuels are available, such that the purported blendwall is not a "wall" in any real sense. Any failure to develop that infrastructure, and any concomitant feeling among petitioners that the "blendwall" hinders their activities, is not an issue of adequate "supply," and thus not a proper basis for invoking EPA's waiver authority.

More generally, EPA has acknowledged that it must exercise its waiver authority in a manner that best effectuates "Congress' overall desire to promote the use of renewable fuels, reflected in enacting the expanded RFS program and mandating the increased utilization of

renewable fuels over a number of years." 73 Fed. Reg. 47,168, 47,171 (Aug. 13, 2008). EPA previously determined it has discretion to retain the full volumes even if the general waiver criteria are met. *Id.* at 47,172. Retaining the volumes here best effectuates Congress's intent. Since EPA had authority to retain the volumes, its determination must be upheld.

IV. EPA'S DELAY IN PROMULGATING THE FINAL RULE DOES NOT ELIMINATE ITS DUTY TO ENSURE COMPLIANCE WITH STATUTORY MINIMUM VOLUME REQUIREMENTS, NOR DOES IT EXCUSE OBLIGATED PARTIES FROM COMPLIANCE

EPA missed its November 30, 2012 deadline. After EPA published its proposal on February 7, 2013, JA15, Monroe requested certain accommodations. *See, e.g.*, JA759. EPA accommodated by, *inter alia*, providing additional time to come into compliance. Monroe thus "present[ed] a winning opinion before the agency," and cannot complain now. *S. Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882, 891 (D.C. Cir. 2006) (citation omitted).

Monroe re-raises arguments about "retroactivity" that this Court rejected in *NPRA*, when it addressed petitions for review of EPA's 2009 biomass-based diesel volume and 2010 standards, which were effective July 1, 2010. 630 F.3d at 151.

Monroe's attempt to limit *NPRA* to its facts is unavailing. *See* Monroe Br. 24. *NPRA* turned on principles equally applicable here.[20] *First*, agencies do not lose their authority to act after missing deadlines unless the statute so provides. 630 F.3d at 154-55 (citing *Barnhart v. Peabody Coal Co.*, 537 U.S. 149, 158 (2003) and *Brock v. Pierce Cnty.*, 476 U.S. 253, 265 (1986), and rejecting "the core of petitioners' position" on that basis). *Second*, not only did Congress *not* remove EPA's authority to act after the deadlines, it said the opposite—EPA *must* act. EPA must "*ensure* that the [annual] requirements ... are met," "*[r]egardless of the date of promulgation.*" 42 U.S.C. §7545(o)(2)(A)(iii). Thus, as this Court recognized in *NPRA*, even if the standards "may be retroactive ... EPA did not exceed its authority under the EISA." 630 F.3d at 158. Monroe's "retroactivity" argument here is the same, and Monroe should not be permitted to seek a different answer from a different panel.

Even entertaining the argument anew, it fails. *First*, the standards are not "retroactive." Rules are "retroactive" if they make

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[20] API and AFPM, petitioners in *NPRA*, criticize EPA's "tardiness" in their statement of facts, but do not join Monroe's arguments.

past conduct illegal or sanctionable, but not if they merely upset hopes or expectations based on preexisting law. *See Nat'l Cable v. FCC*, 567 F.3d 659, 670-71 (D.C. Cir. 2009); *Bowen v. Georgetown Univ. Hosp.*, 488 U.S. 204, 219-220 (1988) (Scalia, J., concurring); *Chem. Waste Mgmt. v. EPA*, 869 F.2d 1526, 1536 (D.C. Cir. 1989); *NPRA*, 630 at 159-62 (discussing *National Cable*, *Bowen*, and *Chemical Waste*). Again, Monroe complains of the renewable fuel volume. Monroe Br. 24. The annual minimum volumes are in the statute, and have been since 2007. 42 U.S.C. §7545(o)(2)(B). Obligated parties were aware of their obligations and had time to prepare to meet them. They, thus, suffered no lack of notice when EPA issued standards. *Compare* JA795, tbl.I.B.3-1, *with* 121 Stat. 1522-24 and 77 Fed. Reg. at 59,458.

Monroe cites its hope that EPA would reduce the 2013 statutory volumes based on the "blendwall," Monroe Br. 24-25, but that hope is both unfounded and irrelevant to a retroactivity analysis. Rules often frustrate parties' expectations, but "[s]uch expectations, however legitimate, cannot furnish a sufficient basis for identifying impermissibly retroactive rules," *NPRA*, 630 F.3d at 161 (quoting *National Cable*, 567 F.3d at 670), and "most economic regulation would

be unworkable if all laws disrupting prior expectations were deemed suspect." *Id.* (quoting *Chemical Waste*, 869 F.2d at 1536).

Second, EPA acted reasonably. Despite Monroe's complaints about the "blendwall" and operation of the RIN market, the fact is that more than enough RINs are available. Moreover, as noted, EPA reasonably gave additional time to comply. Monroe asked EPA to delay the compliance deadline as another "possible approach[] to address the impact of an unprecedented price spike in RINs combined with much shorter than expected notice of compliance obligation levels," JA759, which EPA did. JA797. While all would prefer EPA meet its deadlines consistently—including Respondent-Intervenors, who seek investors and make business decisions based on EPA's standards—EPA accommodated obligated parties' concerns, and was not arbitrary or capricious.

CONCLUSION

As set forth above, the petitions should be dismissed or denied.

Respectfully submitted,

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February 11, 2014

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATIONS

This brief complies with the type-volume limitations of Fed. R. App. P. 32(a)(7), and the applicable word limit of the October 29, 2013, briefing order in this case (8,750 words). According to the word processing system used to prepare it, this brief contains 8,736 words.

/s/ Sandra P. Franco

ORAL ARGUMENT NOT YET SCHEDULED

Nos. 13-1265, -1267, -1268 (consolidated)

IN THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

MONROE ENERGY, LLC, AMERICAN PETROLEUM INSTITUTE, AND AMERICAN FUEL AND PETROCHEMICAL MANUFACTURERS,
Petitioners,
PBF HOLDING COMPANY LLC,
Petitioner-Intervenor,
v.
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
Respondent,
NATIONAL BIODIESEL BOARD, BIOTECHNOLOGY INDUSTRY ORGANIZATION, GROWTH ENERGY, AND RENEWABLE FUELS ASSOCIATION,
Respondent-Intervenors.

ON PETITION FOR REVIEW OF FINAL ACTION OF THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

STATUTORY ADDENDUM TO BRIEF FOR RESPONDENT-INTERVENORS

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February 11, 2014

STATUTORY AND REGULATORY ADDENDUM

42 U.S.C. § 7545 (2011) ADD-01

42 U.S.C. § 7607 (2011) ADD-27

40 C.F.R. § 80.1406 ..... ADD-33

40 C.F.R. § 80.1416 ..... ADD-34

40 C.F.R. § 80.1426 ..... ADD-36

40 C.F.R. § 80.1428 ..... ADD-55

40 C.F.R. § 80.1429 ..... ADD-57

have been expended by the State before the date on which any such grant was made.

(July 14, 1955, ch. 360, title II, § 210, formerly § 209, as added Pub. L. 90–148, § 2, Nov. 21, 1967, 81 Stat. 502; renumbered and amended Pub. L. 91–604, §§ 8(a), 10(b), Dec. 31, 1970, 84 Stat. 1694, 1700; Pub. L. 95–95, title II, § 204, Aug. 7, 1977, 91 Stat. 754.)

CODIFICATION

Section was formerly classified to section 1857f–6b of this title.

PRIOR PROVISIONS

A prior section 210 of act July 14, 1955, was renumbered section 211 by Pub. L. 91–604 and is classified to section 7545 of this title.

AMENDMENTS

1977—Pub. L. 95–95 inserted provision allowing grants to be made by way of reimbursement in any case in which amounts have been expended by States before the date on which the grants were made.

1970—Pub. L. 91–604, § 10(b), substituted provisions authorizing the Administrator to make grants to appropriate State agencies for the development and maintenance of effective vehicle emission devices and systems inspection and emission testing and control programs, for provisions authorizing the Secretary to make grants to appropriate State air pollution control agencies for the development of meaningful uniform motor vehicle emission device inspection and emission testing programs.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

§ 7545. Regulation of fuels

(a) Authority of Administrator to regulate

The Administrator may by regulation designate any fuel or fuel additive (including any fuel or fuel additive used exclusively in nonroad engines or nonroad vehicles) and, after such date or dates as may be prescribed by him, no manufacturer or processor of any such fuel or additive may sell, offer for sale, or introduce into commerce such fuel or additive unless the Administrator has registered such fuel or additive in accordance with subsection (b) of this section.

(b) Registration requirement

(1) For the purpose of registration of fuels and fuel additives, the Administrator shall require—

(A) the manufacturer of any fuel to notify him as to the commercial identifying name and manufacturer of any additive contained in such fuel; the range of concentration of any additive in the fuel; and the purpose-in-use of any such additive; and

(B) the manufacturer of any additive to notify him as to the chemical composition of such additive.

(2) For the purpose of registration of fuels and fuel additives, the Administrator shall, on a regular basis, require the manufacturer of any fuel or fuel additive—

(A) to conduct tests to determine potential public health and environmental effects of the fuel or additive (including carcinogenic, teratogenic, or mutagenic effects); and

(B) to furnish the description of any analytical technique that can be used to detect and measure any additive in such fuel, the recommended range of concentration of such additive, and the recommended purpose-in-use of such additive, and such other information as is reasonable and necessary to determine the emissions resulting from the use of the fuel or additive contained in such fuel, the effect of such fuel or additive on the emission control performance of any vehicle, vehicle engine, nonroad engine or nonroad vehicle, or the extent to which such emissions affect the public health or welfare.

Tests under subparagraph (A) shall be conducted in conformity with test procedures and protocols established by the Administrator. The result of such tests shall not be considered confidential.

(3) Upon compliance with the provision of this subsection, including assurances that the Administrator will receive changes in the information required, the Administrator shall register such fuel or fuel additive.

(4) STUDY ON CERTAIN FUEL ADDITIVES AND BLENDSTOCKS.—

(A) IN GENERAL.—Not later than 2 years after August 8, 2005, the Administrator shall—

(i) conduct a study on the effects on public health (including the effects on children, pregnant women, minority or low-income communities, and other sensitive populations), air quality, and water resources of increased use of, and the feasibility of using as substitutes for methyl tertiary butyl ether in gasoline—

(I) ethyl tertiary butyl ether;

(II) tertiary amyl methyl ether;

(III) di-isopropyl ether;

(IV) tertiary butyl alcohol;

(V) other ethers and heavy alcohols, as determined by then[1] Administrator;

(VI) ethanol;

(VII) iso-octane; and

(VIII) alkylates; and

(ii) conduct a study on the effects on public health (including the effects on children, pregnant women, minority or low-income communities, and other sensitive populations), air quality, and water resources of the adjustment for ethanol-blended reformulated gasoline to the volatile organic compounds performance requirements that are applicable under paragraphs (1) and (3) of subsection (k) of this section; and

(iii) submit to the Committee on Environment and Public Works of the Senate and the Committee on Energy and Commerce of the House of Representatives a report describing the results of the studies under clauses (i) and (ii).

(B) CONTRACTS FOR STUDY.—In carrying out this paragraph, the Administrator may enter into one or more contracts with nongovernmental entities such as—

(i) the national energy laboratories; and

(ii) institutions of higher education (as defined in section 1001 of title 20).

[1] So in original. Probably should be "the".

(c) Offending fuels and fuel additives; control; prohibition

(1) The Administrator may, from time to time on the basis of information obtained under subsection (b) of this section or other information available to him, by regulation, control or prohibit the manufacture, introduction into commerce, offering for sale, or sale of any fuel or fuel additive for use in a motor vehicle, motor vehicle engine, or nonroad engine or nonroad vehicle if, in the judgment of the Administrator, any fuel or fuel additive or any emission product of such fuel or fuel additive causes, or contributes, to air pollution or water pollution (including any degradation in the quality of groundwater) that may reasonably be anticipated to endanger the public health or welfare, or (B)[2] if emission products of such fuel or fuel additive will impair to a significant degree the performance of any emission control device or system which is in general use, or which the Administrator finds has been developed to a point where in a reasonable time it would be in general use were such regulation to be promulgated.

(2)(A) No fuel, class of fuels, or fuel additive may be controlled or prohibited by the Administrator pursuant to clause (A) of paragraph (1) except after consideration of all relevant medical and scientific evidence available to him, including consideration of other technologically or economically feasible means of achieving emission standards under section 7521 of this title.

(B) No fuel or fuel additive may be controlled or prohibited by the Administrator pursuant to clause (B) of paragraph (1) except after consideration of available scientific and economic data, including a cost benefit analysis comparing emission control devices or systems which are or will be in general use and require the proposed control or prohibition with emission control devices or systems which are or will be in general use and do not require the proposed control or prohibition. On request of a manufacturer of motor vehicles, motor vehicle engines, fuels, or fuel additives submitted within 10 days of notice of proposed rulemaking, the Administrator shall hold a public hearing and publish findings with respect to any matter he is required to consider under this subparagraph. Such findings shall be published at the time of promulgation of final regulations.

(C) No fuel or fuel additive may be prohibited by the Administrator under paragraph (1) unless he finds, and publishes such finding, that in his judgment such prohibition will not cause the use of any other fuel or fuel additive which will produce emissions which will endanger the public health or welfare to the same or greater degree than the use of the fuel or fuel additive proposed to be prohibited.

(3)(A) For the purpose of obtaining evidence and data to carry out paragraph (2), the Administrator may require the manufacturer of any motor vehicle or motor vehicle engine to furnish any information which has been developed concerning the emissions from motor vehicles resulting from the use of any fuel or fuel additive, or the effect of such use on the performance of any emission control device or system.

(B) In obtaining information under subparagraph (A), section 7607(a) of this title (relating to subpenas) shall be applicable.

(4)(A) Except as otherwise provided in subparagraph (B) or (C), no State (or political subdivision thereof) may prescribe or attempt to enforce, for purposes of motor vehicle emission control, any control or prohibition respecting any characteristic or component of a fuel or fuel additive in a motor vehicle or motor vehicle engine—

(i) if the Administrator has found that no control or prohibition of the characteristic or component of a fuel or fuel additive under paragraph (1) is necessary and has published his finding in the Federal Register, or

(ii) if the Administrator has prescribed under paragraph (1) a control or prohibition applicable to such characteristic or component of a fuel or fuel additive, unless State prohibition or control is identical to the prohibition or control prescribed by the Administrator.

(B) Any State for which application of section 7543(a) of this title has at any time been waived under section 7543(b) of this title may at any time prescribe and enforce, for the purpose of motor vehicle emission control, a control or prohibition respecting any fuel or fuel additive.

(C)(i) A State may prescribe and enforce, for purposes of motor vehicle emission control, a control or prohibition respecting the use of a fuel or fuel additive in a motor vehicle or motor vehicle engine if an applicable implementation plan for such State under section 7410 of this title so provides. The Administrator may approve such provision in an implementation plan, or promulgate an implementation plan containing such a provision, only if he finds that the State control or prohibition is necessary to achieve the national primary or secondary ambient air quality standard which the plan implements. The Administrator may find that a State control or prohibition is necessary to achieve that standard if no other measures that would bring about timely attainment exist, or if other measures exist and are technically possible to implement, but are unreasonable or impracticable. The Administrator may make a finding of necessity under this subparagraph even if the plan for the area does not contain an approved demonstration of timely attainment.

(ii) The Administrator may temporarily waive a control or prohibition respecting the use of a fuel or fuel additive required or regulated by the Administrator pursuant to subsection (c), (h), (i), (k), or (m) of this section or prescribed in an applicable implementation plan under section 7410 of this title approved by the Administrator under clause (i) of this subparagraph if, after consultation with, and concurrence by, the Secretary of Energy, the Administrator determines that—

(I) extreme and unusual fuel or fuel additive supply circumstances exist in a State or region of the Nation which prevent the distribution of an adequate supply of the fuel or fuel additive to consumers;

(II) such extreme and unusual fuel and fuel additive supply circumstances are the result of a natural disaster, an Act of God, a pipeline

[2] So in original. Par. (1) does not contain a cl. (A).

or refinery equipment failure, or another event that could not reasonably have been foreseen or prevented and not the lack of prudent planning on the part of the suppliers of the fuel or fuel additive to such State or region; and

(III) it is in the public interest to grant the waiver (for example, when a waiver is necessary to meet projected temporary shortfalls in the supply of the fuel or fuel additive in a State or region of the Nation which cannot otherwise be compensated for).

(iii) If the Administrator makes the determinations required under clause (ii), such a temporary extreme and unusual fuel and fuel additive supply circumstances waiver shall be permitted only if—

(I) the waiver applies to the smallest geographic area necessary to address the extreme and unusual fuel and fuel additive supply circumstances;

(II) the waiver is effective for a period of 20 calendar days or, if the Administrator determines that a shorter waiver period is adequate, for the shortest practicable time period necessary to permit the correction of the extreme and unusual fuel and fuel additive supply circumstances and to mitigate impact on air quality;

(III) the waiver permits a transitional period, the exact duration of which shall be determined by the Administrator (but which shall be for the shortest practicable period), after the termination of the temporary waiver to permit wholesalers and retailers to blend down their wholesale and retail inventory;

(IV) the waiver applies to all persons in the motor fuel distribution system; and

(V) the Administrator has given public notice to all parties in the motor fuel distribution system, and local and State regulators, in the State or region to be covered by the waiver.

The term "motor fuel distribution system" as used in this clause shall be defined by the Administrator through rulemaking.

(iv) Within 180 days of August 8, 2005, the Administrator shall promulgate regulations to implement clauses (ii) and (iii).

(v)[3] Nothing in this subparagraph shall—

(I) limit or otherwise affect the application of any other waiver authority of the Administrator pursuant to this section or pursuant to a regulation promulgated pursuant to this section; and

(II) subject any State or person to an enforcement action, penalties, or liability solely arising from actions taken pursuant to the issuance of a waiver under this subparagraph.

(v)(I)[3] The Administrator shall have no authority, when considering a State implementation plan or a State implementation plan revision, to approve under this paragraph any fuel included in such plan or revision if the effect of such approval increases the total number of fuels approved under this paragraph as of September 1, 2004, in all State implementation plans.

(II) The Administrator, in consultation with the Secretary of Energy, shall determine the total number of fuels approved under this paragraph as of September 1, 2004, in all State implementation plans and shall publish a list of such fuels, including the States and Petroleum Administration for Defense District in which they are used, in the Federal Register for public review and comment no later than 90 days after August 8, 2005.

(III) The Administrator shall remove a fuel from the list published under subclause (II) if a fuel ceases to be included in a State implementation plan or if a fuel in a State implementation plan is identical to a Federal fuel formulation implemented by the Administrator, but the Administrator shall not reduce the total number of fuels authorized under the list published under subclause (II).

(IV) Subclause (I) shall not limit the Administrator's authority to approve a control or prohibition respecting any new fuel under this paragraph in a State implementation plan or revision to a State implementation plan if such new fuel—

(aa) completely replaces a fuel on the list published under subclause (II); or

(bb) does not increase the total number of fuels on the list published under subclause (II) as of September 1, 2004.

In the event that the total number of fuels on the list published under subclause (II) at the time of the Administrator's consideration of a control or prohibition respecting a new fuel is lower than the total number of fuels on such list as of September 1, 2004, the Administrator may approve a control or prohibition respecting a new fuel under this subclause if the Administrator, after consultation with the Secretary of Energy, publishes in the Federal Register after notice and comment a finding that, in the Administrator's judgment, such control or prohibition respecting a new fuel will not cause fuel supply or distribution interruptions or have a significant adverse impact on fuel producibility in the affected area or contiguous areas.

(V) The Administrator shall have no authority under this paragraph, when considering any particular State's implementation plan or a revision to that State's implementation plan, to approve any fuel unless that fuel was, as of the date of such consideration, approved in at least one State implementation plan in the applicable Petroleum Administration for Defense District. However, the Administrator may approve as part of a State implementation plan or State implementation plan revision a fuel with a summertime Reid Vapor Pressure of 7.0 psi. In no event shall such approval by the Administrator cause an increase in the total number of fuels on the list published under subclause (II).

(VI) Nothing in this clause shall be construed to have any effect regarding any available authority of States to require the use of any fuel additive registered in accordance with subsection (b) of this section, including any fuel additive registered in accordance with subsection (b) of this section after August 8, 2005.

[3] So in original. Two cls. (v) have been enacted.

(d) Penalties and injunctions

(1) Civil penalties

Any person who violates subsection (a), (f), (g), (k), (*l*), (m), (n), or (*o*) of this section or the regulations prescribed under subsection (c), (h), (i), (k), (*l*), (m), (n), or (*o*) of this section or who fails to furnish any information or conduct any tests required by the Administrator under subsection (b) of this section shall be liable to the United States for a civil penalty of not more than the sum of $25,000 for every day of such violation and the amount of economic benefit or savings resulting from the violation. Any violation with respect to a regulation prescribed under subsection (c), (k), (*l*), (m), or (*o*) of this section which establishes a regulatory standard based upon a multiday averaging period shall constitute a separate day of violation for each and every day in the averaging period. Civil penalties shall be assessed in accordance with subsections (b) and (c) of section 7524 of this title.

(2) Injunctive authority

The district courts of the United States shall have jurisdiction to restrain violations of subsections (a), (f), (g), (k), (*l*), (m), (n), and (*o*) of this section and of the regulations prescribed under subsections (c), (h), (i), (k), (*l*), (m), (n), and (*o*) of this section, to award other appropriate relief, and to compel the furnishing of information and the conduct of tests required by the Administrator under subsection (b) of this section. Actions to restrain such violations and compel such actions shall be brought by and in the name of the United States. In any such action, subpoenas for witnesses who are required to attend a district court in any district may run into any other district.

(e) Testing of fuels and fuel additives

(1) Not later than one year after August 7, 1977, and after notice and opportunity for a public hearing, the Administrator shall promulgate regulations which implement the authority under subsection (b)(2)(A) and (B) of this section with respect to each fuel or fuel additive which is registered on the date of promulgation of such regulations and with respect to each fuel or fuel additive for which an application for registration is filed thereafter.

(2) Regulations under subsection (b) of this section to carry out this subsection shall require that the requisite information be provided to the Administrator by each such manufacturer—

(A) prior to registration, in the case of any fuel or fuel additive which is not registered on the date of promulgation of such regulations; or

(B) not later than three years after the date of promulgation of such regulations, in the case of any fuel or fuel additive which is registered on such date.

(3) In promulgating such regulations, the Administrator may—

(A) exempt any small business (as defined in such regulations) from or defer or modify the requirements of, such regulations with respect to any such small business;

(B) provide for cost-sharing with respect to the testing of any fuel or fuel additive which is manufactured or processed by two or more persons or otherwise provide for shared responsibility to meet the requirements of this section without duplication; or

(C) exempt any person from such regulations with respect to a particular fuel or fuel additive upon a finding that any additional testing of such fuel or fuel additive would be duplicative of adequate existing testing.

(f) New fuels and fuel additives

(1)(A) Effective upon March 31, 1977, it shall be unlawful for any manufacturer of any fuel or fuel additive to first introduce into commerce, or to increase the concentration in use of, any fuel or fuel additive for general use in light duty motor vehicles manufactured after model year 1974 which is not substantially similar to any fuel or fuel additive utilized in the certification of any model year 1975, or subsequent model year, vehicle or engine under section 7525 of this title.

(B) Effective upon November 15, 1990, it shall be unlawful for any manufacturer of any fuel or fuel additive to first introduce into commerce, or to increase the concentration in use of, any fuel or fuel additive for use by any person in motor vehicles manufactured after model year 1974 which is not substantially similar to any fuel or fuel additive utilized in the certification of any model year 1975, or subsequent model year, vehicle or engine under section 7525 of this title.

(2) Effective November 30, 1977, it shall be unlawful for any manufacturer of any fuel to introduce into commerce any gasoline which contains a concentration of manganese in excess of .0625 grams per gallon of fuel, except as otherwise provided pursuant to a waiver under paragraph (4).

(3) Any manufacturer of any fuel or fuel additive which prior to March 31, 1977, and after January 1, 1974, first introduced into commerce or increased the concentration in use of a fuel or fuel additive that would otherwise have been prohibited under paragraph (1)(A) if introduced on or after March 31, 1977 shall, not later than September 15, 1978, cease to distribute such fuel or fuel additive in commerce. During the period beginning 180 days after August 7, 1977, and before September 15, 1978, the Administrator shall prohibit, or restrict the concentration of any fuel additive which he determines will cause or contribute to the failure of an emission control device or system (over the useful life of any vehicle in which such device or system is used) to achieve compliance by the vehicle with the emission standards with respect to which it has been certified under section 7525 of this title.

(4) The Administrator, upon application of any manufacturer of any fuel or fuel additive, may waive the prohibitions established under paragraph (1) or (3) of this subsection or the limitation specified in paragraph (2) of this subsection, if he determines that the applicant has established that such fuel or fuel additive or a specified concentration thereof, and the emission products of such fuel or fuel additive or specified concentration thereof, will not cause or contribute to a failure of any emission control device or system (over the useful life of the motor vehicle,

motor vehicle engine, nonroad engine or nonroad vehicle in which such device or system is used) to achieve compliance by the vehicle or engine with the emission standards with respect to which it has been certified pursuant to sections 7525 and 7547(a) of this title. The Administrator shall take final action to grant or deny an application submitted under this paragraph, after public notice and comment, within 270 days of the receipt of such an application.

(5) No action of the Administrator under this section may be stayed by any court pending judicial review of such action.

(g) Misfueling

(1) No person shall introduce, or cause or allow the introduction of, leaded gasoline into any motor vehicle which is labeled "unleaded gasoline only," which is equipped with a gasoline tank filler inlet designed for the introduction of unleaded gasoline, which is a 1990 or later model year motor vehicle, or which such person knows or should know is a vehicle designed solely for the use of unleaded gasoline.

(2) Beginning October 1, 1993, no person shall introduce or cause or allow the introduction into any motor vehicle of diesel fuel which such person knows or should know contains a concentration of sulfur in excess of 0.05 percent (by weight) or which fails to meet a cetane index minimum of 40 or such equivalent alternative aromatic level as prescribed by the Administrator under subsection (i)(2) of this section.

(h) Reid Vapor Pressure requirements

(1) Prohibition

Not later than 6 months after November 15, 1990, the Administrator shall promulgate regulations making it unlawful for any person during the high ozone season (as defined by the Administrator) to sell, offer for sale, dispense, supply, offer for supply, transport, or introduce into commerce gasoline with a Reid Vapor Pressure in excess of 9.0 pounds per square inch (psi). Such regulations shall also establish more stringent Reid Vapor Pressure standards in a nonattainment area as the Administrator finds necessary to generally achieve comparable evaporative emissions (on a per-vehicle basis) in nonattainment areas, taking into consideration the enforceability of such standards, the need of an area for emission control, and economic factors.

(2) Attainment areas

The regulations under this subsection shall not make it unlawful for any person to sell, offer for supply, transport, or introduce into commerce gasoline with a Reid Vapor Pressure of 9.0 pounds per square inch (psi) or lower in any area designated under section 7407 of this title as an attainment area. Notwithstanding the preceding sentence, the Administrator may impose a Reid vapor pressure requirement lower than 9.0 pounds per square inch (psi) in any area, formerly an ozone nonattainment area, which has been redesignated as an attainment area.

(3) Effective date; enforcement

The regulations under this subsection shall provide that the requirements of this subsection shall take effect not later than the high ozone season for 1992, and shall include such provisions as the Administrator determines are necessary to implement and enforce the requirements of this subsection.

(4) Ethanol waiver

For fuel blends containing gasoline and 10 percent denatured anhydrous ethanol, the Reid vapor pressure limitation under this subsection shall be one pound per square inch (psi) greater than the applicable Reid vapor pressure limitations established under paragraph (1); *Provided, however*, That a distributor, blender, marketer, reseller, carrier, retailer, or wholesale purchaser-consumer shall be deemed to be in full compliance with the provisions of this subsection and the regulations promulgated thereunder if it can demonstrate (by showing receipt of a certification or other evidence acceptable to the Administrator) that—

(A) the gasoline portion of the blend complies with the Reid vapor pressure limitations promulgated pursuant to this subsection;

(B) the ethanol portion of the blend does not exceed its waiver condition under subsection (f)(4) of this section; and

(C) no additional alcohol or other additive has been added to increase the Reid Vapor Pressure of the ethanol portion of the blend.

(5) Exclusion from ethanol waiver

(A) Promulgation of regulations

Upon notification, accompanied by supporting documentation, from the Governor of a State that the Reid vapor pressure limitation established by paragraph (4) will increase emissions that contribute to air pollution in any area in the State, the Administrator shall, by regulation, apply, in lieu of the Reid vapor pressure limitation established by paragraph (4), the Reid vapor pressure limitation established by paragraph (1) to all fuel blends containing gasoline and 10 percent denatured anhydrous ethanol that are sold, offered for sale, dispensed, supplied, offered for supply, transported, or introduced into commerce in the area during the high ozone season.

(B) Deadline for promulgation

The Administrator shall promulgate regulations under subparagraph (A) not later than 90 days after the date of receipt of a notification from a Governor under that subparagraph.

(C) Effective date

(i) In general

With respect to an area in a State for which the Governor submits a notification under subparagraph (A), the regulations under that subparagraph shall take effect on the later of—

(I) the first day of the first high ozone season for the area that begins after the date of receipt of the notification; or

(II) 1 year after the date of receipt of the notification.

(ii) Extension of effective date based on determination of insufficient supply

(I) In general

If, after receipt of a notification with respect to an area from a Governor of a State under subparagraph (A), the Administrator determines, on the Administrator's own motion or on petition of any person and after consultation with the Secretary of Energy, that the promulgation of regulations described in subparagraph (A) would result in an insufficient supply of gasoline in the State, the Administrator, by regulation—

(aa) shall extend the effective date of the regulations under clause (i) with respect to the area for not more than 1 year; and

(bb) may renew the extension under item (aa) for two additional periods, each of which shall not exceed 1 year.

(II) Deadline for action on petitions

The Administrator shall act on any petition submitted under subclause (I) not later than 180 days after the date of receipt of the petition.

(6) Areas covered

The provisions of this subsection shall apply only to the 48 contiguous States and the District of Columbia.

(i) Sulfur content requirements for diesel fuel

(1) Effective October 1, 1993, no person shall manufacture, sell, supply, offer for sale or supply, dispense, transport, or introduce into commerce motor vehicle diesel fuel which contains a concentration of sulfur in excess of 0.05 percent (by weight) or which fails to meet a cetane index minimum of 40.

(2) Not later than 12 months after November 15, 1990, the Administrator shall promulgate regulations to implement and enforce the requirements of paragraph (1). The Administrator may require manufacturers and importers of diesel fuel not intended for use in motor vehicles to dye such fuel in a particular manner in order to segregate it from motor vehicle diesel fuel. The Administrator may establish an equivalent alternative aromatic level to the cetane index specification in paragraph (1).

(3) The sulfur content of fuel required to be used in the certification of 1991 through 1993 model year heavy-duty diesel vehicles and engines shall be 0.10 percent (by weight). The sulfur content and cetane index minimum of fuel required to be used in the certification of 1994 and later model year heavy-duty diesel vehicles and engines shall comply with the regulations promulgated under paragraph (2).

(4) The States of Alaska and Hawaii may be exempted from the requirements of this subsection in the same manner as provided in section 7625[4] of this title. The Administrator shall take final action on any petition filed under section 7625[4] of this title or this paragraph for an exemption from the requirements of this subsection, within 12 months from the date of the petition.

(j) Lead substitute gasoline additives

(1) After November 15, 1990, any person proposing to register any gasoline additive under subsection (a) of this section or to use any previously registered additive as a lead substitute may also elect to register the additive as a lead substitute gasoline additive for reducing valve seat wear by providing the Administrator with such relevant information regarding product identity and composition as the Administrator deems necessary for carrying out the responsibilities of paragraph (2) of this subsection (in addition to other information which may be required under subsection (b) of this section).

(2) In addition to the other testing which may be required under subsection (b) of this section, in the case of the lead substitute gasoline additives referred to in paragraph (1), the Administrator shall develop and publish a test procedure to determine the additives' effectiveness in reducing valve seat wear and the additives' tendencies to produce engine deposits and other adverse side effects. The test procedures shall be developed in cooperation with the Secretary of Agriculture and with the input of additive manufacturers, engine and engine components manufacturers, and other interested persons. The Administrator shall enter into arrangements with an independent laboratory to conduct tests of each additive using the test procedures developed and published pursuant to this paragraph. The Administrator shall publish the results of the tests by company and additive name in the Federal Register along with, for comparison purposes, the results of applying the same test procedures to gasoline containing 0.1 gram of lead per gallon in lieu of the lead substitute gasoline additive. The Administrator shall not rank or otherwise rate the lead substitute additives. Test procedures shall be established within 1 year after November 15, 1990. Additives shall be tested within 18 months of November 15, 1990, or 6 months after the lead substitute additives are identified to the Administrator, whichever is later.

(3) The Administrator may impose a user fee to recover the costs of testing of any fuel additive referred to in this subsection. The fee shall be paid by the person proposing to register the fuel additive concerned. Such fee shall not exceed $20,000 for a single fuel additive.

(4) There are authorized to be appropriated to the Administrator not more than $1,000,000 for the second full fiscal year after November 15, 1990, to establish test procedures and conduct engine tests as provided in this subsection. Not more than $500,000 per year is authorized to be appropriated for each of the 5 subsequent fiscal years.

(5) Any fees collected under this subsection shall be deposited in a special fund in the United States Treasury for licensing and other services which thereafter shall be available for appropriation, to remain available until expended, to carry out the Agency's activities for which the fees were collected.

[4] So in original. Probably should be section "7625–1".

(k) Reformulated gasoline for conventional vehicles

(1) EPA regulations

(A) In general

Not later than November 15, 1991, the Administrator shall promulgate regulations under this section establishing requirements for reformulated gasoline to be used in gasoline-fueled vehicles in specified nonattainment areas. Such regulations shall require the greatest reduction in emissions of ozone forming volatile organic compounds (during the high ozone season) and emissions of toxic air pollutants (during the entire year) achievable through the reformulation of conventional gasoline, taking into consideration the cost of achieving such emission reductions, any nonair-quality and other air-quality related health and environmental impacts and energy requirements.

(B) Maintenance of toxic air pollutant emissions reductions from reformulated gasoline

(i) Definition of PADD

In this subparagraph the term "PADD" means a Petroleum Administration for Defense District.

(ii) Regulations concerning emissions of toxic air pollutants

Not later than 270 days after August 8, 2005, the Administrator shall establish by regulation, for each refinery or importer (other than a refiner or importer in a State that has received a waiver under section 7543(b) of this title with respect to gasoline produced for use in that State), standards for toxic air pollutants from use of the reformulated gasoline produced or distributed by the refiner or importer that maintain the reduction of the average annual aggregate emissions of toxic air pollutants for reformulated gasoline produced or distributed by the refiner or importer during calendar years 2001 and 2002 (as determined on the basis of data collected by the Administrator with respect to the refiner or importer).

(iii) Standards applicable to specific refineries or importers

(I) Applicability of standards

For any calendar year, the standards applicable to a refiner or importer under clause (ii) shall apply to the quantity of gasoline produced or distributed by the refiner or importer in the calendar year only to the extent that the quantity is less than or equal to the average annual quantity of reformulated gasoline produced or distributed by the refiner or importer during calendar years 2001 and 2002.

(II) Applicability of other standards

For any calendar year, the quantity of gasoline produced or distributed by a refiner or importer that is in excess of the quantity subject to subclause (I) shall be subject to standards for emissions of toxic air pollutants promulgated under subparagraph (A) and paragraph (3)(B).

(iv) Credit program

The Administrator shall provide for the granting and use of credits for emissions of toxic air pollutants in the same manner as provided in paragraph (7).

(v) Regional protection of toxics reduction baselines

(I) In general

Not later than 60 days after August 8, 2005, and not later than April 1 of each calendar year that begins after August 8, 2005, the Administrator shall publish in the Federal Register a report that specifies, with respect to the previous calendar year—

(aa) the quantity of reformulated gasoline produced that is in excess of the average annual quantity of reformulated gasoline produced in 2001 and 2002; and

(bb) the reduction of the average annual aggregate emissions of toxic air pollutants in each PADD, based on retail survey data or data from other appropriate sources.

(II) Effect of failure to maintain aggregate toxics reductions

If, in any calendar year, the reduction of the average annual aggregate emissions of toxic air pollutants in a PADD fails to meet or exceed the reduction of the average annual aggregate emissions of toxic air pollutants in the PADD in calendar years 2001 and 2002, the Administrator, not later than 90 days after the date of publication of the report for the calendar year under subclause (I), shall—

(aa) identify, to the maximum extent practicable, the reasons for the failure, including the sources, volumes, and characteristics of reformulated gasoline that contributed to the failure; and

(bb) promulgate revisions to the regulations promulgated under clause (ii), to take effect not earlier than 180 days but not later than 270 days after the date of promulgation, to provide that, notwithstanding clause (iii)(II), all reformulated gasoline produced or distributed at each refiner or importer shall meet the standards applicable under clause (iii)(I) beginning not later than April 1 of the calendar year following publication of the report under subclause (I) and in each calendar year thereafter.

(vi) Not later than July 1, 2007, the Administrator shall promulgate final regulations to control hazardous air pollutants from motor vehicles and motor vehicle fuels, as provided for in section 80.1045 of title 40, Code of Federal Regulations (as in effect on August 8, 2005), and as authorized under section 7521(*l*)[5] of this title. If the

[5] So in original. See References in Text note below.

Administrator promulgates by such date, final regulations to control hazardous air pollutants from motor vehicles and motor vehicle fuels that achieve and maintain greater overall reductions in emissions of air toxics from reformulated gasoline than the reductions that would be achieved under subsection (k)(1)(B) of this section as amended by this clause, then subsections (k)(1)(B)(i) through (k)(1)(B)(v) of this section shall be null and void and regulations promulgated thereunder shall be rescinded and have no further effect.

(2) General requirements

The regulations referred to in paragraph (1) shall require that reformulated gasoline comply with paragraph (3) and with each of the following requirements (subject to paragraph (7)):

(A) NO_x emissions

The emissions of oxides of nitrogen (NO_x) from baseline vehicles when using the reformulated gasoline shall be no greater than the level of such emissions from such vehicles when using baseline gasoline. If the Administrator determines that compliance with the limitation on emissions of oxides of nitrogen under the preceding sentence is technically infeasible, considering the other requirements applicable under this subsection to such gasoline, the Administrator may, as appropriate to ensure compliance with this subparagraph, adjust (or waive entirely), any other requirements of this paragraph or any requirements applicable under paragraph (3)(A).

(B) Benzene content

The benzene content of the gasoline shall not exceed 1.0 percent by volume.

(C) Heavy metals

The gasoline shall have no heavy metals, including lead or manganese. The Administrator may waive the prohibition contained in this subparagraph for a heavy metal (other than lead) if the Administrator determines that addition of the heavy metal to the gasoline will not increase, on an aggregate mass or cancer-risk basis, toxic air pollutant emissions from motor vehicles.

(3) More stringent of formula or performance standards

The regulations referred to in paragraph (1) shall require compliance with the more stringent of either the requirements set forth in subparagraph (A) or the requirements of subparagraph (B) of this paragraph. For purposes of determining the more stringent provision, clause (i) and clause (ii) of subparagraph (B) shall be considered independently.

(A) Formula

(i) Benzene

The benzene content of the reformulated gasoline shall not exceed 1.0 percent by volume.

(ii) Aromatics

The aromatic hydrocarbon content of the reformulated gasoline shall not exceed 25 percent by volume.

(iii) Lead

The reformulated gasoline shall have no lead content.

(iv) Detergents

The reformulated gasoline shall contain additives to prevent the accumulation of deposits in engines or vehicle fuel supply systems.

(B) Performance standard

(i) VOC emissions

During the high ozone season (as defined by the Administrator), the aggregate emissions of ozone forming volatile organic compounds from baseline vehicles when using the reformulated gasoline shall be 15 percent below the aggregate emissions of ozone forming volatile organic compounds from such vehicles when using baseline gasoline. Effective in calendar year 2000 and thereafter, 25 percent shall be substituted for 15 percent in applying this clause, except that the Administrator may adjust such 25 percent requirement to provide for a lesser or greater reduction based on technological feasibility, considering the cost of achieving such reductions in VOC emissions. No such adjustment shall provide for less than a 20 percent reduction below the aggregate emissions of such air pollutants from such vehicles when using baseline gasoline. The reductions required under this clause shall be on a mass basis.

(ii) Toxics

During the entire year, the aggregate emissions of toxic air pollutants from baseline vehicles when using the reformulated gasoline shall be 15 percent below the aggregate emissions of toxic air pollutants from such vehicles when using baseline gasoline. Effective in calendar year 2000 and thereafter, 25 percent shall be substituted for 15 percent in applying this clause, except that the Administrator may adjust such 25 percent requirement to provide for a lesser or greater reduction based on technological feasibility, considering the cost of achieving such reductions in toxic air pollutants. No such adjustment shall provide for less than a 20 percent reduction below the aggregate emissions of such air pollutants from such vehicles when using baseline gasoline. The reductions required under this clause shall be on a mass basis.

Any reduction greater than a specific percentage reduction required under this subparagraph shall be treated as satisfying such percentage reduction requirement.

(4) Certification procedures

(A) Regulations

The regulations under this subsection shall include procedures under which the Administrator shall certify reformulated gasoline as complying with the requirements established pursuant to this subsection. Under such regulations, the Administrator shall establish procedures for any person to petition

the Administrator to certify a fuel formulation, or slate of fuel formulations. Such procedures shall further require that the Administrator shall approve or deny such petition within 180 days of receipt. If the Administrator fails to act within such 180-day period, the fuel shall be deemed certified until the Administrator completes action on the petition.

(B) Certification; equivalency

The Administrator shall certify a fuel formulation or slate of fuel formulations as complying with this subsection if such fuel or fuels—

(i) comply with the requirements of paragraph (2), and

(ii) achieve equivalent or greater reductions in emissions of ozone forming volatile organic compounds and emissions of toxic air pollutants than are achieved by a reformulated gasoline meeting the applicable requirements of paragraph (3).

(C) EPA determination of emissions level

Within 1 year after November 15, 1990, the Administrator shall determine the level of emissions of ozone forming volatile organic compounds and emissions of toxic air pollutants emitted by baseline vehicles when operating on baseline gasoline. For purposes of this subsection, within 1 year after November 15, 1990, the Administrator shall, by rule, determine appropriate measures of, and methodology for, ascertaining the emissions of air pollutants (including calculations, equipment, and testing tolerances).

(5) Prohibition

Effective beginning January 1, 1995, each of the following shall be a violation of this subsection:

(A) The sale or dispensing by any person of conventional gasoline to ultimate consumers in any covered area.

(B) The sale or dispensing by any refiner, blender, importer, or marketer of conventional gasoline for resale in any covered area, without (i) segregating such gasoline from reformulated gasoline, and (ii) clearly marking such conventional gasoline as "conventional gasoline, not for sale to ultimate consumer in a covered area".

Any refiner, blender, importer or marketer who purchases property[6] segregated and marked conventional gasoline, and thereafter labels, represents, or wholesales such gasoline as reformulated gasoline shall also be in violation of this subsection. The Administrator may impose sampling, testing, and recordkeeping requirements upon any refiner, blender, importer, or marketer to prevent violations of this section.

(6) Opt-in areas

(A) Classified areas

(i) In general

Upon the application of the Governor of a State, the Administrator shall apply the prohibition set forth in paragraph (5) in any area in the State classified under subpart 2 of part D of subchapter I of this chapter as a Marginal, Moderate, Serious, or Severe Area (without regard to whether or not the 1980 population of the area exceeds 250,000). In any such case, the Administrator shall establish an effective date for such prohibition as he deems appropriate, not later than January 1, 1995, or 1 year after such application is received, whichever is later. The Administrator shall publish such application in the Federal Register upon receipt.

(ii) Effect of insufficient domestic capacity to produce reformulated gasoline

If the Administrator determines, on the Administrator's own motion or on petition of any person, after consultation with the Secretary of Energy, that there is insufficient domestic capacity to produce gasoline certified under this subsection, the Administrator shall, by rule, extend the effective date of such prohibition in Marginal, Moderate, Serious, or Severe Areas referred to in clause (i) for one additional year, and may, by rule, renew such extension for 2 additional one-year periods. The Administrator shall act on any petition submitted under this subparagraph within 6 months after receipt of the petition. The Administrator shall issue such extensions for areas with a lower ozone classification before issuing any such extension for areas with a higher classification.

(B) Ozone transport region

(i) Application of prohibition

(I) In general

On application of the Governor of a State in the ozone transport region established by section 7511c(a) of this title, the Administrator, not later than 180 days after the date of receipt of the application, shall apply the prohibition specified in paragraph (5) to any area in the State (other than an area classified as a marginal, moderate, serious, or severe ozone nonattainment area under subpart 2 of part D of subchapter I of this chapter) unless the Administrator determines under clause (iii) that there is insufficient capacity to supply reformulated gasoline.

(II) Publication of application

As soon as practicable after the date of receipt of an application under subclause (I), the Administrator shall publish the application in the Federal Register.

(ii) Period of applicability

Under clause (i), the prohibition specified in paragraph (5) shall apply in a State—

(I) commencing as soon as practicable but not later than 2 years after the date of approval by the Administrator of the application of the Governor of the State; and

(II) ending not earlier than 4 years after the commencement date determined under subclause (I).

[6] So in original. Probably should be "properly".

(iii) Extension of commencement date based on insufficient capacity

(I) In general

If, after receipt of an application from a Governor of a State under clause (i), the Administrator determines, on the Administrator's own motion or on petition of any person, after consultation with the Secretary of Energy, that there is insufficient capacity to supply reformulated gasoline, the Administrator, by regulation—

(aa) shall extend the commencement date with respect to the State under clause (ii)(I) for not more than 1 year; and

(bb) may renew the extension under item (aa) for 2 additional periods, each of which shall not exceed 1 year.

(II) Deadline for action on petitions

The Administrator shall act on any petition submitted under subclause (I) not later than 180 days after the date of receipt of the petition.

(7) Credits

(A) The regulations promulgated under this subsection shall provide for the granting of an appropriate amount of credits to a person who refines, blends, or imports and certifies a gasoline or slate of gasoline that—

(i) has an aromatic hydrocarbon content (by volume) that is less than the maximum aromatic hydrocarbon content required to comply with paragraph (3); or

(ii) has a benzene content (by volume) that is less than the maximum benzene content specified in paragraph (2).

(B) The regulations described in subparagraph (A) shall also provide that a person who is granted credits may use such credits, or transfer all or a portion of such credits to another person for use within the same nonattainment area, for the purpose of complying with this subsection.

(C) The regulations promulgated under subparagraphs (A) and (B) shall ensure the enforcement of the requirements for the issuance, application, and transfer of the credits. Such regulations shall prohibit the granting or transfer of such credits for use with respect to any gasoline in a nonattainment area, to the extent the use of such credits would result in any of the following:

(i) An average gasoline aromatic hydrocarbon content (by volume) for the nonattainment (taking into account all gasoline sold for use in conventional gasoline-fueled vehicles in the nonattainment area) higher than the average fuel aromatic hydrocarbon content (by volume) that would occur in the absence of using any such credits.

(ii) An average benzene content (by volume) for the nonattainment area (taking into account all gasoline sold for use in conventional gasoline-fueled vehicles in the nonattainment area) higher than the average benzene content (by volume) that would occur in the absence of using any such credits.

(8) Anti-dumping rules

(A) In general

Within 1 year after November 15, 1990, the Administrator shall promulgate regulations applicable to each refiner, blender, or importer of gasoline ensuring that gasoline sold or introduced into commerce by such refiner, blender, or importer (other than reformulated gasoline subject to the requirements of paragraph (1)) does not result in average per gallon emissions (measured on a mass basis) of (i) volatile organic compounds, (ii) oxides of nitrogen, (iii) carbon monoxide, and (iv) toxic air pollutants in excess of such emissions of such pollutants attributable to gasoline sold or introduced into commerce in calendar year 1990 by that refiner, blender, or importer. Such regulations shall take effect beginning January 1, 1995.

(B) Adjustments

In evaluating compliance with the requirements of subparagraph (A), the Administrator shall make appropriate adjustments to insure that no credit is provided for improvement in motor vehicle emissions control in motor vehicles sold after the calendar year 1990.

(C) Compliance determined for each pollutant independently

In determining whether there is an increase in emissions in violation of the prohibition contained in subparagraph (A) the Administrator shall consider an increase in each air pollutant referred to in clauses (i) through (iv) as a separate violation of such prohibition, except that the Administrator shall promulgate regulations to provide that any increase in emissions of oxides of nitrogen resulting from adding oxygenates to gasoline may be offset by an equivalent or greater reduction (on a mass basis) in emissions of volatile organic compounds, carbon monoxide, or toxic air pollutants, or any combination of the foregoing.

(D) Compliance period

The Administrator shall promulgate an appropriate compliance period or appropriate compliance periods to be used for assessing compliance with the prohibition contained in subparagraph (A).

(E) Baseline for determining compliance

If the Administrator determines that no adequate and reliable data exists regarding the composition of gasoline sold or introduced into commerce by a refiner, blender, or importer in calendar year 1990, for such refiner, blender, or importer, baseline gasoline shall be substituted for such 1990 gasoline in determining compliance with subparagraph (A).

(9) Emissions from entire vehicle

In applying the requirements of this subsection, the Administrator shall take into account emissions from the entire motor vehicle, including evaporative, running, refueling, and exhaust emissions.

(10) Definitions

For purposes of this subsection—

(A) Baseline vehicles

The term "baseline vehicles" mean representative model year 1990 vehicles.

(B) Baseline gasoline

(i) Summertime

The term "baseline gasoline" means in the case of gasoline sold during the high ozone period (as defined by the Administrator) a gasoline which meets the following specifications:

BASELINE GASOLINE FUEL PROPERTIES	
API Gravity	57.4
Sulfur, ppm	339
Benzene, %	1.53
RVP, psi	8.7
Octane, R+M/2	87.3
IBP, F	91
10%, F	128
50%, F	218
90%, F	330
End Point, F	415
Aromatics, %	32.0
Olefins, %	9.2
Saturates, %	58.8

(ii) Wintertime

The Administrator shall establish the specifications of "baseline gasoline" for gasoline sold at times other than the high ozone period (as defined by the Administrator). Such specifications shall be the specifications of 1990 industry average gasoline sold during such period.

(C) Toxic air pollutants

The term "toxic air pollutants" means the aggregate emissions of the following:

Benzene
1,3 Butadiene
Polycyclic organic matter (POM)
Acetaldehyde
Formaldehyde.

(D) Covered area

The 9 ozone nonattainment areas having a 1980 population in excess of 250,000 and having the highest ozone design value during the period 1987 through 1989 shall be "covered areas" for purposes of this subsection. Effective one year after the reclassification of any ozone nonattainment area as a Severe ozone nonattainment area under section 7511(b) of this title, such Severe area shall also be a "covered area" for purposes of this subsection.

(E) Reformulated gasoline

The term "reformulated gasoline" means any gasoline which is certified by the Administrator under this section as complying with this subsection.

(F) Conventional gasoline

The term "conventional gasoline" means any gasoline which does not meet specifications set by a certification under this subsection.

***(l)* Detergents**

Effective beginning January 1, 1995, no person may sell or dispense to an ultimate consumer in the United States, and no refiner or marketer may directly or indirectly sell or dispense to persons who sell or dispense to ultimate consumers in the United States any gasoline which does not contain additives to prevent the accumulation of deposits in engines or fuel supply systems. Not later than 2 years after November 15, 1990, the Administrator shall promulgate a rule establishing specifications for such additives.

(m) Oxygenated fuels

(1) Plan revisions for CO nonattainment areas

(A) Each State in which there is located all or part of an area which is designated under subchapter I of this chapter as a nonattainment area for carbon monoxide and which has a carbon monoxide design value of 9.5 parts per million (ppm) or above based on data for the 2-year period of 1988 and 1989 and calculated according to the most recent interpretation methodology issued by the Administrator prior to November 15, 1990, shall submit to the Administrator a State implementation plan revision under section 7410 of this title and part D of subchapter I of this chapter for such area which shall contain the provisions specified under this subsection regarding oxygenated gasoline.

(B) A plan revision which contains such provisions shall also be submitted by each State in which there is located any area which, for any 2-year period after 1989 has a carbon monoxide design value of 9.5 ppm or above. The revision shall be submitted within 18 months after such 2-year period.

(2) Oxygenated gasoline in CO nonattainment areas

Each plan revision under this subsection shall contain provisions to require that any gasoline sold, or dispensed, to the ultimate consumer in the carbon monoxide nonattainment area or sold or dispensed directly or indirectly by fuel refiners or marketers to persons who sell or dispense to ultimate consumers, in the larger of—

(A) the Consolidated Metropolitan Statistical Area (CMSA) in which the area is located, or

(B) if the area is not located in a CMSA, the Metropolitan Statistical Area in which the area is located,

be blended, during the portion of the year in which the area is prone to high ambient concentrations of carbon monoxide to contain not less than 2.7 percent oxygen by weight (subject to a testing tolerance established by the Administrator). The portion of the year in which the area is prone to high ambient concentrations of carbon monoxide shall be as determined by the Administrator, but shall not be less than 4 months. At the request of a State with respect to any area designated as nonattainment for carbon monoxide, the Administrator may reduce the period specified in the preceding sentence if the State can demonstrate that because of meteorological conditions, a reduced period will assure that there will be no exceedances of the carbon monoxide standard outside of such reduced period. For

areas with a carbon monoxide design value of 9.5 ppm or more of[7] November 15, 1990, the revision shall provide that such requirement shall take effect no later than November 1, 1992 (or at such other date during 1992 as the Administrator establishes under the preceding provisions of this paragraph). For other areas, the revision shall provide that such requirement shall take effect no later than November 1 of the third year after the last year of the applicable 2-year period referred to in paragraph (1) (or at such other date during such third year as the Administrator establishes under the preceding provisions of this paragraph) and shall include a program for implementation and enforcement of the requirement consistent with guidance to be issued by the Administrator.

(3) Waivers

(A) The Administrator shall waive, in whole or in part, the requirements of paragraph (2) upon a demonstration by the State to the satisfaction of the Administrator that the use of oxygenated gasoline would prevent or interfere with the attainment by the area of a national primary ambient air quality standard (or a State or local ambient air quality standard) for any air pollutant other than carbon monoxide.

(B) The Administrator shall, upon demonstration by the State satisfactory to the Administrator, waive the requirement of paragraph (2) where the Administrator determines that mobile sources of carbon monoxide do not contribute significantly to carbon monoxide levels in an area.

(C)(i) Any person may petition the Administrator to make a finding that there is, or is likely to be, for any area, an inadequate domestic supply of, or distribution capacity for, oxygenated gasoline meeting the requirements of paragraph (2) or fuel additives (oxygenates) necessary to meet such requirements. The Administrator shall act on such petition within 6 months after receipt of the petition.

(ii) If the Administrator determines, in response to a petition under clause (i), that there is an inadequate supply or capacity described in clause (i), the Administrator shall delay the effective date of paragraph (2) for 1 year. Upon petition, the Administrator may extend such effective date for one additional year. No partial delay or lesser waiver may be granted under this clause.

(iii) In granting waivers under this subparagraph the Administrator shall consider distribution capacity separately from the adequacy of domestic supply and shall grant such waivers in such manner as will assure that, if supplies of oxygenated gasoline are limited, areas having the highest design value for carbon monoxide will have a priority in obtaining oxygenated gasoline which meets the requirements of paragraph (2).

(iv) As used in this subparagraph, the term distribution capacity includes capacity for transportation, storage, and blending.

(4) Fuel dispensing systems

Any person selling oxygenated gasoline at retail pursuant to this subsection shall be required under regulations promulgated by the Administrator to label the fuel dispensing system with a notice that the gasoline is oxygenated and will reduce the carbon monoxide emissions from the motor vehicle.

(5) Guidelines for credit

The Administrator shall promulgate guidelines, within 9 months after November 15, 1990, allowing the use of marketable oxygen credits from gasolines during that portion of the year specified in paragraph (2) with higher oxygen content than required to offset the sale or use of gasoline with a lower oxygen content than required. No credits may be transferred between nonattainment areas.

(6) Attainment areas

Nothing in this subsection shall be interpreted as requiring an oxygenated gasoline program in an area which is in attainment for carbon monoxide, except that in a carbon monoxide nonattainment area which is redesignated as attainment for carbon monoxide, the requirements of this subsection shall remain in effect to the extent such program is necessary to maintain such standard thereafter in the area.

(7) Failure to attain CO standard

If the Administrator determines under section 7512(b)(2) of this title that the national primary ambient air quality standard for carbon monoxide has not been attained in a Serious Area by the applicable attainment date, the State shall submit a plan revision for the area within 9 months after the date of such determination. The plan revision shall provide that the minimum oxygen content of gasoline referred to in paragraph (2) shall be 3.1 percent by weight unless such requirement is waived in accordance with the provisions of this subsection.

(n) Prohibition on leaded gasoline for highway use

After December 31, 1995, it shall be unlawful for any person to sell, offer for sale, supply, offer for supply, dispense, transport, or introduce into commerce, for use as fuel in any motor vehicle (as defined in section 7554(2)[8] of this title) any gasoline which contains lead or lead additives.

(o) Renewable fuel program

(1) Definitions

In this section:

(A) Additional renewable fuel

The term "additional renewable fuel" means fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in home heating oil or jet fuel.

(B) Advanced biofuel

(i) In general

The term "advanced biofuel" means renewable fuel, other than ethanol derived

[7] So in original. Probably should be "as of".

[8] So in original. Probably should be section "7550(2)".

from corn starch, that has lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, that are at least 50 percent less than baseline lifecycle greenhouse gas emissions.

(ii) Inclusions

The types of fuels eligible for consideration as "advanced biofuel" may include any of the following:

(I) Ethanol derived from cellulose, hemicellulose, or lignin.

(II) Ethanol derived from sugar or starch (other than corn starch).

(III) Ethanol derived from waste material, including crop residue, other vegetative waste material, animal waste, and food waste and yard waste.

(IV) Biomass-based diesel.

(V) Biogas (including landfill gas and sewage waste treatment gas) produced through the conversion of organic matter from renewable biomass.

(VI) Butanol or other alcohols produced through the conversion of organic matter from renewable biomass.

(VII) Other fuel derived from cellulosic biomass.

(C) Baseline lifecycle greenhouse gas emissions

The term "baseline lifecycle greenhouse gas emissions" means the average lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, for gasoline or diesel (whichever is being replaced by the renewable fuel) sold or distributed as transportation fuel in 2005.

(D) Biomass-based diesel

The term "biomass-based diesel" means renewable fuel that is biodiesel as defined in section 13220(f) of this title and that has lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, that are at least 50 percent less than the baseline lifecycle greenhouse gas emissions. Notwithstanding the preceding sentence, renewable fuel derived from co-processing biomass with a petroleum feedstock shall be advanced biofuel if it meets the requirements of subparagraph (B), but is not biomass-based diesel.

(E) Cellulosic biofuel

The term "cellulosic biofuel" means renewable fuel derived from any cellulose, hemicellulose, or lignin that is derived from renewable biomass and that has lifecycle greenhouse gas emissions, as determined by the Administrator, that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions.

(F) Conventional biofuel

The term "conventional biofuel" means renewable fuel that is ethanol derived from corn starch.

(G) Greenhouse gas

The term "greenhouse gas" means carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons,[9] sulfur hexafluoride. The Administrator may include any other anthropogenically-emitted gas that is determined by the Administrator, after notice and comment, to contribute to global warming.

(H) Lifecycle greenhouse gas emissions

The term "lifecycle greenhouse gas emissions" means the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Administrator, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential.

(I) Renewable biomass

The term "renewable biomass" means each of the following:

(i) Planted crops and crop residue harvested from agricultural land cleared or cultivated at any time prior to December 19, 2007, that is either actively managed or fallow, and nonforested.

(ii) Planted trees and tree residue from actively managed tree plantations on nonfederal[10] land cleared at any time prior to December 19, 2007, including land belonging to an Indian tribe or an Indian individual, that is held in trust by the United States or subject to a restriction against alienation imposed by the United States.

(iii) Animal waste material and animal byproducts.

(iv) Slash and pre-commercial thinnings that are from non-federal[10] forestlands, including forestlands belonging to an Indian tribe or an Indian individual, that are held in trust by the United States or subject to a restriction against alienation imposed by the United States, but not forests or forestlands that are ecological communities with a global or State ranking of critically imperiled, imperiled, or rare pursuant to a State Natural Heritage Program, old growth forest, or late successional forest.

(v) Biomass obtained from the immediate vicinity of buildings and other areas regularly occupied by people, or of public infrastructure, at risk from wildfire.

(vi) Algae.

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

(J) Renewable fuel

The term "renewable fuel" means fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in a transportation fuel.

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[9] So in original. The word "and" probably should appear.

[10] So in original. Probably should be "non-Federal".

(K) Small refinery

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

(L) Transportation fuel

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

(2) Renewable fuel program

(A) Regulations

(i) In general

Not later than 1 year after August 8, 2005, the Administrator shall promulgate regulations to ensure that gasoline sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains the applicable volume of renewable fuel determined in accordance with subparagraph (B). Not later than 1 year after December 19, 2007, the Administrator shall revise the regulations under this paragraph to ensure that transportation fuel sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains at least the applicable volume of renewable fuel, advanced biofuel, cellulosic biofuel, and biomass-based diesel, determined in accordance with subparagraph (B) and, in the case of any such renewable fuel produced from new facilities that commence construction after December 19, 2007, achieves at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions.

(ii) Noncontiguous State opt-in

(I) In general

On the petition of a noncontiguous State or territory, the Administrator may allow the renewable fuel program established under this subsection to apply in the noncontiguous State or territory at the same time or any time after the Administrator promulgates regulations under this subparagraph.

(II) Other actions

In carrying out this clause, the Administrator may—

(aa) issue or revise regulations under this paragraph;

(bb) establish applicable percentages under paragraph (3);

(cc) provide for the generation of credits under paragraph (5); and

(dd) take such other actions as are necessary to allow for the application of the renewable fuels program in a noncontiguous State or territory.

(iii) Provisions of regulations

Regardless of the date of promulgation, the regulations promulgated under clause (i)—

(I) shall contain compliance provisions applicable to refineries, blenders, distributors, and importers, as appropriate, to ensure that the requirements of this paragraph are met; but

(II) shall not—

(aa) restrict geographic areas in which renewable fuel may be used; or

(bb) impose any per-gallon obligation for the use of renewable fuel.

(iv) Requirement in case of failure to promulgate regulations

If the Administrator does not promulgate regulations under clause (i), the percentage of renewable fuel in gasoline sold or dispensed to consumers in the United States, on a volume basis, shall be 2.78 percent for calendar year 2006.

(B) Applicable volumes

(i) Calendar years after 2005

(I) Renewable fuel

For the purpose of subparagraph (A), the applicable volume of renewable fuel for the calendar years 2006 through 2022 shall be determined in accordance with the following table:

Calendar year:	Applicable volume of renewable fuel (in billions of gallons):
2006	4.0
2007	4.7
2008	9.0
2009	11.1
2010	12.95
2011	13.95
2012	15.2
2013	16.55
2014	18.15
2015	20.5
2016	22.25
2017	24.0
2018	26.0
2019	28.0
2020	30.0
2021	33.0
2022	36.0

(II) Advanced biofuel

For the purpose of subparagraph (A), of the volume of renewable fuel required under subclause (I), the applicable volume of advanced biofuel for the calendar years 2009 through 2022 shall be determined in accordance with the following table:

Calendar year:	Applicable volume of advanced biofuel (in billions of gallons):

2009	0.6
2010	0.95
2011	1.35
2012	2.0
2013	2.75
2014	3.75
2015	5.5
2016	7.25
2017	9.0
2018	11.0
2019	13.0
2020	15.0
2021	18.0
2022	21.0

(III) Cellulosic biofuel

For the purpose of subparagraph (A), of the volume of advanced biofuel required under subclause (II), the applicable volume of cellulosic biofuel for the calendar years 2010 through 2022 shall be determined in accordance with the following table:

Calendar year:	Applicable volume of cellulosic biofuel (in billions of gallons):
2010	0.1
2011	0.25
2012	0.5
2013	1.0
2014	1.75
2015	3.0
2016	4.25
2017	5.5
2018	7.0
2019	8.5
2020	10.5
2021	13.5
2022	16.0

(IV) Biomass-based diesel

For the purpose of subparagraph (A), of the volume of advanced biofuel required under subclause (II), the applicable volume of biomass-based diesel for the calendar years 2009 through 2012 shall be determined in accordance with the following table:

Calendar year:	Applicable volume of biomass-based diesel (in billions of gallons):
2009	0.5
2010	0.65
2011	0.80
2012	1.0

(ii) Other calendar years

For the purposes of subparagraph (A), the applicable volumes of each fuel specified in the tables in clause (i) for calendar years after the calendar years specified in the tables shall be determined by the Administrator, in coordination with the Secretary of Energy and the Secretary of Agriculture, based on a review of the implementation of the program during calendar years specified in the tables, and an analysis of—

(I) 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;

(II) the impact of renewable fuels on the energy security of the United States;

(III) the expected annual rate of future commercial production of renewable fuels, including advanced biofuels in each category (cellulosic biofuel and biomass-based diesel);

(IV) 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;

(V) the impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods; and

(VI) 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.

The Administrator shall promulgate rules establishing the applicable volumes under this clause no later than 14 months before the first year for which such applicable volume will apply.

(iii) Applicable volume of advanced biofuel

For the purpose of making the determinations in clause (ii), for each calendar year, the applicable volume of advanced biofuel shall be at least the same percentage of the applicable volume of renewable fuel as in calendar year 2022.

(iv) Applicable volume of cellulosic biofuel

For the purpose of making the determinations in clause (ii), for each calendar year, the applicable volume of cellulosic biofuel established by the Administrator shall be based on the assumption that the Administrator will not need to issue a waiver for such years under paragraph (7)(D).

(v) Minimum applicable volume of biomass-based diesel

For the purpose of making the determinations in clause (ii), the applicable volume of biomass-based diesel shall not be less than the applicable volume listed in clause (i)(IV) for calendar year 2012.

(3) Applicable percentages

(A) Provision of estimate of volumes of gasoline sales

Not later than October 31 of each of calendar years 2005 through 2021, the Administrator of the Energy Information Administration shall provide to the Administrator of the Environmental Protection Agency an es-

timate, with respect to the following calendar year, of the volumes of transportation fuel, biomass-based diesel, and cellulosic biofuel projected to be sold or introduced into commerce in the United States.

(B) Determination of applicable percentages

(i) In general

Not later than November 30 of each of calendar years 2005 through 2021, based on the estimate provided under subparagraph (A), the Administrator of the Environmental Protection Agency shall determine and publish in the Federal Register, with respect to the following calendar year, the renewable fuel obligation that ensures that the requirements of paragraph (2) are met.

(ii) Required elements

The renewable fuel obligation determined for a calendar year under clause (i) shall—

(I) be applicable to refineries, blenders, and importers, as appropriate;

(II) be expressed in terms of a volume percentage of transportation fuel sold or introduced into commerce in the United States; and

(III) subject to subparagraph (C)(i), consist of a single applicable percentage that applies to all categories of persons specified in subclause (I).

(C) Adjustments

In determining the applicable percentage for a calendar year, the Administrator shall make adjustments—

(i) to prevent the imposition of redundant obligations on any person specified in subparagraph (B)(ii)(I); and

(ii) to account for the use of renewable fuel during the previous calendar year by small refineries that are exempt under paragraph (9).

(4) Modification of greenhouse gas reduction percentages

(A) In general

The Administrator may, in the regulations under the last sentence of paragraph (2)(A)(i), adjust the 20 percent, 50 percent, and 60 percent reductions in lifecycle greenhouse gas emissions specified in paragraphs (2)(A)(i) (relating to renewable fuel), (1)(D) (relating to biomass-based diesel), (1)(B)(i) (relating to advanced biofuel), and (1)(E) (relating to cellulosic biofuel) to a lower percentage. For the 50 and 60 percent reductions, the Administrator may make such an adjustment only if he determines that generally such reduction is not commercially feasible for fuels made using a variety of feedstocks, technologies, and processes to meet the applicable reduction.

(B) Amount of adjustment

In promulgating regulations under this paragraph, the specified 50 percent reduction in greenhouse gas emissions from advanced biofuel and in biomass-based diesel may not be reduced below 40 percent. The specified 20 percent reduction in greenhouse gas emissions from renewable fuel may not be reduced below 10 percent, and the specified 60 percent reduction in greenhouse gas emissions from cellulosic biofuel may not be reduced below 50 percent.

(C) Adjusted reduction levels

An adjustment under this paragraph to a percent less than the specified 20 percent greenhouse gas reduction for renewable fuel shall be the minimum possible adjustment, and the adjusted greenhouse gas reduction shall be established by the Administrator at the maximum achievable level, taking cost in consideration, for natural gas fired corn-based ethanol plants, allowing for the use of a variety of technologies and processes. An adjustment in the 50 or 60 percent greenhouse gas levels shall be the minimum possible adjustment for the fuel or fuels concerned, and the adjusted greenhouse gas reduction shall be established at the maximum achievable level, taking cost in consideration, allowing for the use of a variety of feedstocks, technologies, and processes.

(D) 5-year review

Whenever the Administrator makes any adjustment under this paragraph, not later than 5 years thereafter he shall review and revise (based upon the same criteria and standards as required for the initial adjustment) the regulations establishing the adjusted level.

(E) Subsequent adjustments

After the Administrator has promulgated a final rule under the last sentence of paragraph (2)(A)(i) with respect to the method of determining lifecycle greenhouse gas emissions, except as provided in subparagraph (D), the Administrator may not adjust the percent greenhouse gas reduction levels unless he determines that there has been a significant change in the analytical methodology used for determining the lifecycle greenhouse gas emissions. If he makes such determination, he may adjust the 20, 50, or 60 percent reduction levels through rulemaking using the criteria and standards set forth in this paragraph.

(F) Limit on upward adjustments

If, under subparagraph (D) or (E), the Administrator revises a percent level adjusted as provided in subparagraphs (A), (B), and (C) to a higher percent, such higher percent may not exceed the applicable percent specified in paragraph (2)(A)(i), (1)(D), (1)(B)(i), or (1)(E).

(G) Applicability of adjustments

If the Administrator adjusts, or revises, a percent level referred to in this paragraph or makes a change in the analytical methodology used for determining the lifecycle greenhouse gas emissions, such adjustment, revision, or change (or any combination thereof) shall only apply to renewable fuel from new facilities that commence construction after the effective date of such adjustment, revision, or change.

(5) Credit program

(A) In general

The regulations promulgated under paragraph (2)(A) shall provide—

(i) for the generation of an appropriate amount of credits by any person that refines, blends, or imports gasoline that contains a quantity of renewable fuel that is greater than the quantity required under paragraph (2);

(ii) for the generation of an appropriate amount of credits for biodiesel; and

(iii) for the generation of credits by small refineries in accordance with paragraph (9)(C).

(B) Use of credits

A person that generates credits under subparagraph (A) may use the credits, or transfer all or a portion of the credits to another person, for the purpose of complying with paragraph (2).

(C) Duration of credits

A credit generated under this paragraph shall be valid to show compliance for the 12 months as of the date of generation.

(D) Inability to generate or purchase sufficient credits

The regulations promulgated under paragraph (2)(A) shall include provisions allowing any person that is unable to generate or purchase sufficient credits to meet the requirements of paragraph (2) to carry forward a renewable fuel deficit on condition that the person, in the calendar year following the year in which the renewable fuel deficit is created—

(i) achieves compliance with the renewable fuel requirement under paragraph (2); and

(ii) generates or purchases additional renewable fuel credits to offset the renewable fuel deficit of the previous year.

(E) Credits for additional renewable fuel

The Administrator may issue regulations providing: (i) for the generation of an appropriate amount of credits by any person that refines, blends, or imports additional renewable fuels specified by the Administrator; and (ii) for the use of such credits by the generator, or the transfer of all or a portion of the credits to another person, for the purpose of complying with paragraph (2).

(6) Seasonal variations in renewable fuel use

(A) Study

For each of calendar years 2006 through 2012, the Administrator of the Energy Information Administration shall conduct a study of renewable fuel blending to determine whether there are excessive seasonal variations in the use of renewable fuel.

(B) Regulation of excessive seasonal variations

If, for any calendar year, the Administrator of the Energy Information Administration, based on the study under subparagraph (A), makes the determinations specified in subparagraph (C), the Administrator of the Environmental Protection Agency shall promulgate regulations to ensure that 25 percent or more of the quantity of renewable fuel necessary to meet the requirements of paragraph (2) is used during each of the 2 periods specified in subparagraph (D) of each subsequent calendar year.

(C) Determinations

The determinations referred to in subparagraph (B) are that—

(i) less than 25 percent of the quantity of renewable fuel necessary to meet the requirements of paragraph (2) has been used during 1 of the 2 periods specified in subparagraph (D) of the calendar year;

(ii) a pattern of excessive seasonal variation described in clause (i) will continue in subsequent calendar years; and

(iii) promulgating regulations or other requirements to impose a 25 percent or more seasonal use of renewable fuels will not prevent or interfere with the attainment of national ambient air quality standards or significantly increase the price of motor fuels to the consumer.

(D) Periods

The 2 periods referred to in this paragraph are—

(i) April through September; and

(ii) January through March and October through December.

(E) Exclusion

Renewable fuel blended or consumed in calendar year 2006 in a State that has received a waiver under section 7543(b) of this title shall not be included in the study under subparagraph (A).

(F) State exemption from seasonality requirements

Notwithstanding any other provision of law, the seasonality requirement relating to renewable fuel use established by this paragraph shall not apply to any State that has received a waiver under section 7543(b) of this title or any State dependent on refineries in such State for gasoline supplies.

(7) Waivers

(A) In general

The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, may waive the requirements of paragraph (2) in whole or in part on petition by one or more States, by any person subject to the requirements of this subsection, or by the Administrator on his own motion by reducing the national quantity of renewable fuel required under paragraph (2)—

(i) based on a determination by the Administrator, after public notice and opportunity for comment, that implementation of the requirement would severely harm the economy or environment of a State, a region, or the United States; or

(ii) based on a determination by the Administrator, after public notice and oppor-

tunity for comment, that there is an inadequate domestic supply.

(B) Petitions for waivers

The Administrator, in consultation with the Secretary of Agriculture and the Secretary of Energy, shall approve or disapprove a petition for a waiver of the requirements of paragraph (2) within 90 days after the date on which the petition is received by the Administrator.

(C) Termination of waivers

A waiver granted under subparagraph (A) shall terminate after 1 year, but may be renewed by the Administrator after consultation with the Secretary of Agriculture and the Secretary of Energy.

(D) Cellulosic biofuel

(i) For any calendar year for which the projected volume of cellulosic biofuel production is less than the minimum applicable volume established under paragraph (2)(B), as determined by the Administrator based on the estimate provided under paragraph (3)(A), not later than November 30 of the preceding calendar year, the Administrator shall reduce the applicable volume of cellulosic biofuel required under paragraph (2)(B) to the projected volume available during that calendar year. For any calendar year in which the Administrator makes such a reduction, the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels requirement established under paragraph (2)(B) by the same or a lesser volume.

(ii) Whenever the Administrator reduces the minimum cellulosic biofuel volume under this subparagraph, the Administrator shall make available for sale cellulosic biofuel credits at the higher of $0.25 per gallon or the amount by which $3.00 per gallon exceeds the average wholesale price of a gallon of gasoline in the United States. Such amounts shall be adjusted for inflation by the Administrator for years after 2008.

(iii) Eighteen months after December 19, 2007, the Administrator shall promulgate regulations to govern the issuance of credits under this subparagraph. The regulations shall set forth the method for determining the exact price of credits in the event of a waiver. The price of such credits shall not be changed more frequently than once each quarter. These regulations shall include such provisions, including limiting the credits' uses and useful life, as the Administrator deems appropriate to assist market liquidity and transparency, to provide appropriate certainty for regulated entities and renewable fuel producers, and to limit any potential misuse of cellulosic biofuel credits to reduce the use of other renewable fuels, and for such other purposes as the Administrator determines will help achieve the goals of this subsection. The regulations shall limit the number of cellulosic biofuel credits for any calendar year to the minimum applicable volume (as reduced under this subparagraph) of cellulosic biofuel for that year.

(E) Biomass-based diesel

(i) Market evaluation

The Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, shall periodically evaluate the impact of the biomass-based diesel requirements established under this paragraph on the price of diesel fuel.

(ii) Waiver

If the Administrator determines that there is a significant renewable feedstock disruption or other market circumstances that would make the price of biomass-based diesel fuel increase significantly, the Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, shall issue an order to reduce, for up to a 60-day period, the quantity of biomass-based diesel required under subparagraph (A) by an appropriate quantity that does not exceed 15 percent of the applicable annual requirement for biomass-based diesel. For any calendar year in which the Administrator makes a reduction under this subparagraph, the Administrator may also reduce the applicable volume of renewable fuel and advanced biofuels requirement established under paragraph (2)(B) by the same or a lesser volume.

(iii) Extensions

If the Administrator determines that the feedstock disruption or circumstances described in clause (ii) is continuing beyond the 60-day period described in clause (ii) or this clause, the Administrator, in consultation with the Secretary of Energy and the Secretary of Agriculture, may issue an order to reduce, for up to an additional 60-day period, the quantity of biomass-based diesel required under subparagraph (A) by an appropriate quantity that does not exceed an additional 15 percent of the applicable annual requirement for biomass-based diesel.

(F) Modification of applicable volumes

For any of the tables in paragraph (2)(B), if the Administrator waives—

(i) at least 20 percent of the applicable volume requirement set forth in any such table for 2 consecutive years; or

(ii) at least 50 percent of such volume requirement for a single year,

the Administrator shall promulgate a rule (within 1 year after issuing such waiver) that modifies the applicable volumes set forth in the table concerned for all years following the final year to which the waiver applies, except that no such modification in applicable volumes shall be made for any year before 2016. In promulgating such a rule, the Administrator shall comply with the processes, criteria, and standards set forth in paragraph (2)(B)(ii).

(8) Study and waiver for initial year of program

(A) In general

Not later than 180 days after August 8, 2005, the Secretary of Energy shall conduct

for the Administrator a study assessing whether the renewable fuel requirement under paragraph (2) will likely result in significant adverse impacts on consumers in 2006, on a national, regional, or State basis.

(B) Required evaluations

The study shall evaluate renewable fuel—

(i) supplies and prices;

(ii) blendstock supplies; and

(iii) supply and distribution system capabilities.

(C) Recommendations by the Secretary

Based on the results of the study, the Secretary of Energy shall make specific recommendations to the Administrator concerning waiver of the requirements of paragraph (2), in whole or in part, to prevent any adverse impacts described in subparagraph (A).

(D) Waiver

(i) In general

Not later than 270 days after August 8, 2005, the Administrator shall, if and to the extent recommended by the Secretary of Energy under subparagraph (C), waive, in whole or in part, the renewable fuel requirement under paragraph (2) by reducing the national quantity of renewable fuel required under paragraph (2) in calendar year 2006.

(ii) No effect on waiver authority

Clause (i) does not limit the authority of the Administrator to waive the requirements of paragraph (2) in whole, or in part, under paragraph (7).

(9) Small refineries

(A) Temporary exemption

(i) In general

The requirements of paragraph (2) shall not apply to small refineries until calendar year 2011.

(ii) Extension of exemption

(I) Study by Secretary of Energy

Not later than December 31, 2008, the Secretary of Energy shall conduct for the Administrator a study to determine whether compliance with the requirements of paragraph (2) would impose a disproportionate economic hardship on small refineries.

(II) Extension of exemption

In the case of a small refinery that the Secretary of Energy determines under subclause (I) would be subject to a disproportionate economic hardship if required to comply with paragraph (2), the Administrator shall extend the exemption under clause (i) for the small refinery for a period of not less than 2 additional years.

(B) Petitions based on disproportionate economic hardship

(i) Extension of exemption

A small refinery may at any time petition the Administrator for an extension of the exemption under subparagraph (A) for the reason of disproportionate economic hardship.

(ii) Evaluation of petitions

In evaluating a petition under clause (i), the Administrator, in consultation with the Secretary of Energy, shall consider the findings of the study under subparagraph (A)(ii) and other economic factors.

(iii) Deadline for action on petitions

The Administrator shall act on any petition submitted by a small refinery for a hardship exemption not later than 90 days after the date of receipt of the petition.

(C) Credit program

If a small refinery notifies the Administrator that the small refinery waives the exemption under subparagraph (A), the regulations promulgated under paragraph (2)(A) shall provide for the generation of credits by the small refinery under paragraph (5) beginning in the calendar year following the date of notification.

(D) Opt-in for small refineries

A small refinery shall be subject to the requirements of paragraph (2) if the small refinery notifies the Administrator that the small refinery waives the exemption under subparagraph (A).

(10) Ethanol market concentration analysis

(A) Analysis

(i) In general

Not later than 180 days after August 8, 2005, and annually thereafter, the Federal Trade Commission shall perform a market concentration analysis of the ethanol production industry using the Herfindahl-Hirschman Index to determine whether there is sufficient competition among industry participants to avoid price-setting and other anticompetitive behavior.

(ii) Scoring

For the purpose of scoring under clause (i) using the Herfindahl-Hirschman Index, all marketing arrangements among industry participants shall be considered.

(B) Report

Not later than December 1, 2005, and annually thereafter, the Federal Trade Commission shall submit to Congress and the Administrator a report on the results of the market concentration analysis performed under subparagraph (A)(i).

(11) Periodic reviews

To allow for the appropriate adjustment of the requirements described in subparagraph (B) of paragraph (2), the Administrator shall conduct periodic reviews of—

(A) existing technologies;

(B) the feasibility of achieving compliance with the requirements; and

(C) the impacts of the requirements described in subsection (a)(2)[11] on each individual and entity described in paragraph (2).

[11] So in original. Subsection (a) does not contain a par. (2).

(12) Effect on other provisions

Nothing in this subsection, or regulations issued pursuant to this subsection, shall affect or be construed to affect the regulatory status of carbon dioxide or any other greenhouse gas, or to expand or limit regulatory authority regarding carbon dioxide or any other greenhouse gas, for purposes of other provisions (including section 7475) of this chapter. The previous sentence shall not affect implementation and enforcement of this subsection.

(q)[12] Analyses of motor vehicle fuel changes and emissions model

(1) Anti-backsliding analysis

(A) Draft analysis

Not later than 4 years after August 8, 2005, the Administrator shall publish for public comment a draft analysis of the changes in emissions of air pollutants and air quality due to the use of motor vehicle fuel and fuel additives resulting from implementation of the amendments made by the Energy Policy Act of 2005.

(B) Final analysis

After providing a reasonable opportunity for comment but not later than 5 years after August 8, 2005, the Administrator shall publish the analysis in final form.

(2) Emissions model

For the purposes of this section, not later than 4 years after August 8, 2005, the Administrator shall develop and finalize an emissions model that reflects, to the maximum extent practicable, the effects of gasoline characteristics or components on emissions from vehicles in the motor vehicle fleet during calendar year 2007.

(3) Permeation effects study

(A) In general

Not later than 1 year after August 8, 2005, the Administrator shall conduct a study, and report to Congress the results of the study, on the effects of ethanol content in gasoline on permeation, the process by which fuel molecules migrate through the elastomeric materials (rubber and plastic parts) that make up the fuel and fuel vapor systems of a motor vehicle.

(B) Evaporative emissions

The study shall include estimates of the increase in total evaporative emissions likely to result from the use of gasoline with ethanol content in a motor vehicle, and the fleet of motor vehicles, due to permeation.

(r) Fuel and fuel additive importers and importation

For the purposes of this section, the term "manufacturer" includes an importer and the term "manufacture" includes importation.

(s) Conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels

(1) In general

The Secretary of Energy may provide grants to merchant producers of cellulosic biomass ethanol, waste-derived ethanol, and approved renewable fuels in the United States to assist the producers in building eligible production facilities described in paragraph (2) for the production of ethanol or approved renewable fuels.

(2) Eligible production facilities

A production facility shall be eligible to receive a grant under this subsection if the production facility—

(A) is located in the United States; and

(B) uses cellulosic or renewable biomass or waste-derived feedstocks derived from agricultural residues, wood residues, municipal solid waste, or agricultural byproducts.

(3) Authorization of appropriations

There are authorized to be appropriated the following amounts to carry out this subsection:

(A) $100,000,000 for fiscal year 2006.

(B) $250,000,000 for fiscal year 2007.

(C) $400,000,000 for fiscal year 2008.

(4) Definitions

For the purposes of this subsection:

(A) The term "approved renewable fuels" are fuels and components of fuels that have been approved by the Department of Energy, as defined in section 13211 of this title, which have been made from renewable biomass.

(B) The term "renewable biomass" is, as defined in Presidential Executive Order 13134, published in the Federal Register on August 16, 1999, any organic matter that is available on a renewable or recurring basis (excluding old-growth timber), including dedicated energy crops and trees, agricultural food and feed crop residues, aquatic plants, animal wastes, wood and wood residues, paper and paper residues, and other vegetative waste materials. Old-growth timber means timber of a forest from the late successional stage of forest development.

(t) Blending of compliant reformulated gasolines

(1) In general

Notwithstanding subsections (h) and (k) of this section and subject to the limitations in paragraph (2) of this subsection, it shall not be a violation of this part[13] for a gasoline retailer, during any month of the year, to blend at a retail location batches of ethanol-blended and non-ethanol-blended reformulated gasoline, provided that—

(A) each batch of gasoline to be blended has been individually certified as in compliance with subsections (h) and (k) of this section prior to being blended;

(B) the retailer notifies the Administrator prior to such blending, and identifies the exact location of the retail station and the specific tank in which such blending will take place;

(C) the retailer retains and, as requested by the Administrator or the Administrator's designee, makes available for inspection such certifications accounting for all gasoline at the retail outlet; and

[12] So in original. No subsec. (p) has been enacted.

[13] See References in Text note below.

(D) the retailer does not, between June 1 and September 15 of each year, blend a batch of VOC-controlled, or "summer", gasoline with a batch of non-VOC-controlled, or "winter", gasoline (as these terms are defined under subsections (h) and (k) of this section).

(2) Limitations

(A) Frequency limitation

A retailer shall only be permitted to blend batches of compliant reformulated gasoline under this subsection a maximum of two blending periods between May 1 and September 15 of each calendar year.

(B) Duration of blending period

Each blending period authorized under subparagraph (A) shall extend for a period of no more than 10 consecutive calendar days.

(3) Surveys

A sample of gasoline taken from a retail location that has blended gasoline within the past 30 days and is in compliance with subparagraphs (A), (B), (C), and (D) of paragraph (1) shall not be used in a VOC survey mandated by 40 CFR Part 80.

(4) State implementation plans

A State shall be held harmless and shall not be required to revise its State implementation plan under section 7410 of this title to account for the emissions from blended gasoline authorized under paragraph (1).

(5) Preservation of State law

Nothing in this subsection shall—

(A) preempt existing State laws or regulations regulating the blending of compliant gasolines; or

(B) prohibit a State from adopting such restrictions in the future.

(6) Regulations

The Administrator shall promulgate, after notice and comment, regulations implementing this subsection within 1 year after August 8, 2005.

(7) Effective date

This subsection shall become effective 15 months after August 8, 2005, and shall apply to blended batches of reformulated gasoline on or after that date, regardless of whether the implementing regulations required by paragraph (6) have been promulgated by the Administrator by that date.

(8) Liability

No person other than the person responsible for blending under this subsection shall be subject to an enforcement action or penalties under subsection (d) of this section solely arising from the blending of compliant reformulated gasolines by the retailers.

(9) Formulation of gasoline

This subsection does not grant authority to the Administrator or any State (or any subdivision thereof) to require reformulation of gasoline at the refinery to adjust for potential or actual emissions increases due to the blending authorized by this subsection.

(u) Standard specifications for biodiesel

(1) Unless the American Society for Testing and Materials has adopted a standard for diesel fuel containing 20 percent biodiesel (commonly known as "B20") within 1 year after December 19, 2007, the Administrator shall initiate a rulemaking to establish a uniform per gallon fuel standard for such fuel and designate an identification number so that vehicle manufacturers are able to design engines to use fuel meeting such standard.

(2) Unless the American Society for Testing and Materials has adopted a standard for diesel fuel containing 5 percent biodiesel (commonly known as "B5") within 1 year after December 19, 2007, the Administrator shall initiate a rulemaking to establish a uniform per gallon fuel standard for such fuel and designate an identification so that vehicle manufacturers are able to design engines to use fuel meeting such standard.

(3) Whenever the Administrator is required to initiate a rulemaking under paragraph (1) or (2), the Administrator shall promulgate a final rule within 18 months after December 19, 2007.

(4) Not later than 180 days after December 19, 2007, the Administrator shall establish an annual inspection and enforcement program to ensure that diesel fuel containing biodiesel sold or distributed in interstate commerce meets the standards established under regulations under this section, including testing and certification for compliance with applicable standards of the American Society for Testing and Materials. There are authorized to be appropriated to carry out the inspection and enforcement program under this paragraph $3,000,000 for each of fiscal years 2008 through 2010.

(5) For purposes of this subsection, the term "biodiesel" has the meaning provided by section 13220(f) of this title.

(v) Prevention of air quality deterioration

(1) Study

(A) In general

Not later than 18 months after December 19, 2007, the Administrator shall complete a study to determine whether the renewable fuel volumes required by this section will adversely impact air quality as a result of changes in vehicle and engine emissions of air pollutants regulated under this chapter.

(B) Considerations

The study shall include consideration of—

(i) different blend levels, types of renewable fuels, and available vehicle technologies; and

(ii) appropriate national, regional, and local air quality control measures.

(2) Regulations

Not later than 3 years after December 19, 2007, the Administrator shall—

(A) promulgate fuel regulations to implement appropriate measures to mitigate, to the greatest extent achievable, considering the results of the study under paragraph (1), any adverse impacts on air quality, as the result of the renewable volumes required by this section; or

(B) make a determination that no such measures are necessary.

(July 14, 1955, ch. 360, title II, §211, formerly §210, as added Pub. L. 90–148, §2, Nov. 21, 1967, 81 Stat. 502; renumbered and amended Pub. L. 91–604, §§8(a), 9(a), Dec. 31, 1970, 84 Stat. 1694, 1698; Pub. L. 92–157, title III, §302(d), (e), Nov. 18, 1971, 85 Stat. 464; Pub. L. 95–95, title II, §§222, 223, title IV, §401(e), Aug. 7, 1977, 91 Stat. 762, 764, 791; Pub. L. 95–190, §14(a)(73), (74), Nov. 16, 1977, 91 Stat. 1403, 1404; Pub. L. 101–549, title II, §§212–221, 228(d), Nov. 15, 1990, 104 Stat. 2488–2500, 2510; Pub. L. 109–58, title XV, §§1501(a)–(c), 1504(a)(1), (b), 1505–1507, 1512, 1513, 1541(a), (b), Aug. 8, 2005, 119 Stat. 1067–1074, 1076, 1077, 1080, 1081, 1088, 1089, 1106, 1107; Pub. L. 110–140, title II, §§201, 202, 203(f), 208, 209, 210(b), 247, 251, Dec. 19, 2007, 121 Stat. 1519, 1521, 1529, 1531, 1532, 1547, 1548.)

REFERENCES IN TEXT

August 8, 2005, referred to in subsec. (c)(4)(C)(v)(II), was in the original "enactment", which was translated as meaning the date of enactment of Pub. L. 109–58, which enacted subsec. (c)(4)(C)(v), to reflect the probable intent of Congress.

Section 7521(*l*) of this title, referred to in subsec. (k)(1)(B)(vi), was in the original "section 202(l) of the Clean Air Act", which was translated as meaning section 202(*l*) of the Clean Air Act, to reflect the probable intent of Congress.

The Energy Policy Act of 2005, referred to in subsec. (q)(1)(A), is Pub. L. 109–58, Aug. 8, 2005, 119 Stat. 594. For complete classification of this Act to the Code, see Short Title note set out under section 15801 of this title and Tables.

Executive Order 13134, referred to in subsec. (s)(4)(B), which was set out as a note under section 8601 of Title 7, Agriculture, was revoked by Ex. Ord. No. 13423, §11(a)(iii), Jan. 24, 2007, 72 F.R. 3923.

This part, referred to in subsec. (t)(1), was in the original "this subtitle" which was translated as "this part", meaning part A of title II of act July 14, 1955, as the probable intent of Congress, because title II of act July 14, 1955, does not contain subtitles.

CODIFICATION

Section was formerly classified to section 1857f–6c of this title.

PRIOR PROVISIONS

A prior section 211 of act July 14, 1955, as added Nov. 21, 1967, Pub. L. 90–148, §2, 81 Stat. 503, provided for a national emissions standards study and was classified to section 1857f–6d of this title, prior to repeal by section 8(a) of Pub. L. 91–604.

AMENDMENTS

2007—Subsec. (c)(1). Pub. L. 110–140, §208, substituted "nonroad vehicle if, in the judgment of the Administrator, any fuel or fuel additive or" for "nonroad vehicle (A) if in the judgment of the Administrator" and "air pollution or water pollution (including any degradation in the quality of groundwater) that" for "air pollution which".

Subsec. (f)(4). Pub. L. 110–140, §251, amended par. (4) generally. Prior to amendment, par. (4) read as follows: "The Administrator, upon application of any manufacturer of any fuel or fuel additive, may waive the prohibitions established under paragraph (1) or (3) of this subsection or the limitation specified in paragraph (2) of this subsection, if he determines that the applicant has established that such fuel or fuel additive or a specified concentration thereof, and the emission products of such fuel or additive or specified concentration thereof, will not cause or contribute to a failure of any emission control device or system (over the useful life of any vehicle in which such device or system is used) to achieve compliance by the vehicle with the emission standards with respect to which it has been certified pursuant to section 7525 of this title. If the Administrator has not acted to grant or deny an application under this paragraph within one hundred and eighty days of receipt of such application, the waiver authorized by this paragraph shall be treated as granted."

Subsec. (*o*)(1). Pub. L. 110–140, §201, amended par. (1) generally. Prior to amendment, par. (1) defined "cellulosic biomass ethanol", "waste derived ethanol", "renewable fuel", and "small refinery".

Subsec. (*o*)(2)(A)(i). Pub. L. 110–140, §202(a)(1), inserted at end "Not later than 1 year after December 19, 2007, the Administrator shall revise the regulations under this paragraph to ensure that transportation fuel sold or introduced into commerce in the United States (except in noncontiguous States or territories), on an annual average basis, contains at least the applicable volume of renewable fuel, advanced biofuel, cellulosic biofuel, and biomass-based diesel, determined in accordance with subparagraph (B) and, in the case of any such renewable fuel produced from new facilities that commence construction after December 19, 2007, achieves at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions."

Subsec. (*o*)(2)(B). Pub. L. 110–140, §202(a)(2), amended subpar. (B) generally. Prior to amendment, subpar. (B) set forth table of applicable volumes for renewable fuel and related to determination of applicable volumes after the years addressed by the table, including the minimum quantity of renewable fuel to be derived from cellulosic biomass and the method of calculating the minimum applicable volume.

Subsec. (*o*)(3)(A). Pub. L. 110–140, §202(b)(1), (2), substituted "2021" for "2011" and "transportation fuel, biomass-based diesel, and cellulosic biofuel" for "gasoline".

Subsec. (*o*)(3)(B)(i). Pub. L. 110–140, §202(b)(3), substituted "2021" for "2012".

Subsec. (*o*)(3)(B)(ii)(II). Pub. L. 110–140, §202(b)(4), substituted "transportation fuel" for "gasoline".

Subsec. (*o*)(4). Pub. L. 110–140, §202(c), amended par. (4) generally. Prior to amendment, text read as follows: "For the purpose of paragraph (2), 1 gallon of cellulosic biomass ethanol or waste derived ethanol shall be considered to be the equivalent of 2.5 gallons of renewable fuel."

Subsec. (*o*)(5)(E). Pub. L. 110–140, §202(d), added subpar. (E).

Subsec. (*o*)(7)(A). Pub. L. 110–140, §202(e)(1), inserted ", by any person subject to the requirements of this subsection, or by the Administrator on his own motion" after "one or more States" in introductory provisions.

Subsec. (*o*)(7)(B). Pub. L. 110–140, §202(e)(1), struck out "State" before "petition for a waiver".

Subsec. (*o*)(7)(D) to (F). Pub. L. 110–140, §202(e)(2), (3), added subpars. (D) to (F).

Subsec. (*o*)(11). Pub. L. 110–140, §203(f), added par. (11).

Subsec. (*o*)(12). Pub. L. 110–140, §210(b), added par. (12).

Subsecs. (r), (s). Pub. L. 110–140, §247, redesignated subsecs. (r), relating to conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels, and (s) as (s) and (t), respectively.

Subsec. (u). Pub. L. 110–140, §247, which directed amendment of this section by adding subsec. (u) at the end, was executed by adding subsec. (u) after subsec. (t) to reflect the probable intent of Congress.

Subsec. (v). Pub. L. 110–140, §209, added subsec. (v).

2005—Subsec. (b)(2). Pub. L. 109–58, §1505(1)(A), substituted "shall, on a regular basis," for "may also" in introductory provisions.

Subsec. (b)(2)(A). Pub. L. 109–58, §1505(1)(B), added subpar. (A) and struck out former subpar. (A) which read as follows: "to conduct tests to determine potential public health effects of such fuel or additive (including, but not limited to, carcinogenic, teratogenic, or mutagenic effects), and".

Subsec. (b)(4). Pub. L. 109–58, §1505(2), added par. (4).

Subsec. (c)(4)(C). Pub. L. 109–58, §1541(a), designated existing provisions as cl. (i) and added cls. (ii) to (iv) and (v) relating to waiver authority.

Subsec. (c)(4)(C)(v). Pub. L. 109–58, §1541(b), added cl. (v) relating to approval of fuels.

Subsec. (d)(1). Pub. L. 109–58, §1501(b)(1), substituted "(n), or (*o*)" for "or (n)" in two places in first sentence and "(m), or (*o*)" for "or (m)" in second sentence.

Subsec. (d)(2). Pub. L. 109–58, §1501(b)(2), substituted "(n), and (*o*)" for "and (n)" in two places in first sentence.

Subsec. (h)(5), (6). Pub. L. 109–58, §1501(c), added par. (5) and redesignated former par. (5) as (6).

Subsec. (k)(1). Pub. L. 109–58, §1504(b), designated existing provisions as subpar. (A), inserted heading, substituted "Not later than November 15, 1991," for "Within 1 year after November 15, 1990,", and added subpar. (B).

Subsec. (k)(2)(A). Pub. L. 109–58, §1504(a)(1)(A)(i), struck out "(including the oxygen content requirement contained in subparagraph (B))" after "requirements of this paragraph".

Subsec. (k)(2)(B) to (D). Pub. L. 109–58, §1504(a)(1)(A)(ii), (iii), redesignated subpars. (C) and (D) as (B) and (C), respectively, and struck out heading and text of former subpar. (B). Text read as follows: "The oxygen content of the gasoline shall equal or exceed 2.0 percent by weight (subject to a testing tolerance established by the Administrator) except as otherwise required by this chapter. The Administrator may waive, in whole or in part, the application of this subparagraph for any ozone nonattainment area upon a determination by the Administrator that compliance with such requirement would prevent or interfere with the attainment by the area of a national primary ambient air quality standard."

Subsec. (k)(3)(A)(v). Pub. L. 109–58, §1504(a)(1)(B), struck out heading and text of cl. (v). Text read as follows: "The oxygen content of the reformulated gasoline shall equal or exceed 2.0 percent by weight (subject to a testing tolerance established by the Administrator) except as otherwise required by this chapter."

Subsec. (k)(6). Pub. L. 109–58, §1507, redesignated subpars. (A) and (B) as cls. (i) and (ii), respectively, of subpar. (A), inserted subpar. and cl. headings, in cl. (ii) substituted "clause (i)" for "subparagraph (A)" and "this subparagraph" for "this paragraph", and added subpar. (B).

Subsec. (k)(7)(A). Pub. L. 109–58, §1504(a)(1)(C)(i), redesignated cls. (ii) and (iii) as (i) and (ii), respectively, and struck out former cl. (i) which read as follows: "has an oxygen content (by weight) that exceeds the minimum oxygen content specified in paragraph (2);".

Subsec. (k)(7)(C)(ii), (iii). Pub. L. 109–58, §1504(a)(1)(C)(ii), redesignated cl. (iii) as (ii) and struck out former cl. (ii) which read as follows: "An average gasoline oxygen content (by weight) for the nonattainment area (taking into account all gasoline sold for use in conventional gasoline-fueled vehicles in the nonattainment area) lower than the average gasoline oxygen content (by weight) that would occur in the absence of using any such credits."

Subsec. (*o*). Pub. L. 109–58, §1501(a)(2), added subsec. (*o*). Former subsec. (*o*) redesignated (r) relating to fuel and fuel additive importers and importation.

Subsec. (q). Pub. L. 109–58, §1506, which directed amendment of this section by adding subsec. (q) after subsec. (p), was executed by making the addition after subsec. (*o*) to reflect the probable intent of Congress.

Subsec. (r). Pub. L. 109–58, §1512, added subsec. (r) relating to conversion assistance for cellulosic biomass, waste-derived ethanol, approved renewable fuels.

Pub. L. 109–58, §1501(a)(1), redesignated subsec. (*o*) as (r) relating to fuel and fuel additive importers and importation.

Subsec. (s). Pub. L. 109–58, §1513, added subsec. (s).

1990—Subsec. (a). Pub. L. 101–549, §212, inserted "(including any fuel or fuel additive used exclusively in nonroad engines or nonroad vehicles)" after "fuel or fuel additive".

Subsecs. (b)(2)(B), (c)(1). Pub. L. 101–549, §212(b), (c), inserted reference to nonroad engine or nonroad vehicle.

Subsec. (c)(4)(A). Pub. L. 101–549, §213(a), substituted "any characteristic or component of a" for "use of a", inserted "of the characteristic or component of a fuel or fuel additive" after "control or prohibition" in cl. (i), and inserted "characteristic or component of a" after "such" in cl. (ii).

Subsec. (c)(4)(C). Pub. L. 101–549, §213(b), inserted last two sentences, authorizing Administrator to make a finding that State control or prohibition is necessary to achieve the standard.

Subsec. (d). Pub. L. 101–549, §228(d), amended subsec. (d) generally. Prior to amendment, subsec. (d) read as follows: "Any person who violates subsection (a) or (f) of this section or the regulations prescribed under subsection (c) of this section or who fails to furnish any information required by the Administrator under subsection (b) of this section shall forfeit and pay to the United States a civil penalty of $10,000 for each and every day of the continuance of such violation, which shall accrue to the United States and be recovered in a civil suit in the name of the United States, brought in the district where such person has his principal office or in any district in which he does business. The Administrator may, upon application therefor, remit or mitigate any forfeiture provided for in this subsection and he shall have authority to determine the facts upon all such applications."

Subsec. (f)(1). Pub. L. 101–549, §214(a), designated existing provisions as subpar. (A) and added subpar. (B).

Subsec. (f)(3). Pub. L. 101–549, §214(b), substituted reference to paragraph (1)(A) for reference to paragraph (1).

Subsec. (g). Pub. L. 101–549, §215, amended subsec. (g) generally, substituting present provisions for provisions which defined "gasoline", "refinery", and "small refinery" and which limited Administrator's authority to require small refineries to reduce average lead content per gallon of gasoline.

Subsec. (h). Pub. L. 101–549, §216, added subsec. (h).

Subsec. (i). Pub. L. 101–549, §217, added subsec. (i).

Subsec. (j). Pub. L. 101–549, §218(a), added subsec. (j).

Subsecs. (k) to (m). Pub. L. 101–549, §219, added subsecs. (k) to (m).

Subsec. (n). Pub. L. 101–549, §220, added subsec. (n).

Subsec. (*o*). Pub. L. 101–549, §221, added subsec. (*o*).

1977—Subsec. (c)(1)(A). Pub. L. 95–95, §401(e), substituted "if in the judgment of the Administrator any emission product of such fuel or fuel additive causes, or contributes, to air pollution which may reasonably be anticipated to endanger" for "if any emission products of such fuel or fuel additive will endanger".

Subsec. (d). Pub. L. 95–95, §222(b), inserted "or (f)" after "Any person who violates subsection (a)".

Subsecs. (e), (f). Pub. L. 95–95, §222(a), added subsecs. (e) and (f).

Subsec. (f)(2). Pub. L. 95–190, §14(a)(73), inserted provision relating to waiver under par. (4) of this subsec., and struck out "first" before "introduce".

Subsec. (f)(4). Pub. L. 95–190, §14(a)(74), inserted provision relating to applicability of limitation specified under par. (2) of this subsection.

Subsec. (g). Pub. L. 95–95, §223, added subsec. (g).

1971—Subsec. (c)(3)(A). Pub. L. 92–157, §302(d), substituted "purpose of obtaining" for "purpose of".

Subsec. (d). Pub. L. 92–157, §302(e), substituted "subsection (b)" for "subsection (c)" where appearing the second time.

1970—Subsec. (a). Pub. L. 91–604, §9(a), substituted "Administrator" for "Secretary" as the registering authority, inserted references to fuel additives, and substituted the selling, offering for sale, and introduction into commerce of fuel or fuel additives, for the delivery for introduction into interstate commerce or delivery to another person who can reasonably be expected to deliver fuel into interstate commerce.

Subsec. (b). Pub. L. 91–604, §9(a), designated existing provisions as pars. (1) and (3), added par. (2), and sub-

stituted "Administrator" for "Secretary" wherever appearing.

Subsec. (c). Pub. L. 91–604, §9(a), substituted provisions covering the control or prohibition of offending fuels and fuel additives, for provisions covering trade secrets and substituted "Administrator" for "Secretary" wherever appearing.

Subsec. (d). Pub. L. 91–604, §9(a), inserted references to failure to obey regulations prescribed under subsec. (c) and failure to furnish information required by the Administrator under subsec. (c), increased the daily civil penalty from $1,000 to $10,000 and substituted "Administrator" for "Secretary".

Subsec. (e). Pub. L. 91–604, §9(a), struck out subsec. (e) which directed the various United States Attorneys to prosecute for the recovery of forfeitures.

EFFECTIVE DATE OF 2007 AMENDMENT

Pub. L. 110–140, title II, §210(c), Dec. 19, 2007, 121 Stat. 1532, provided that: "The amendments made by this title to section 211(*o*) of the Clean Air Act [42 U.S.C. 7545(*o*)] shall take effect January 1, 2009, except that the Administrator [of the Environmental Protection Agency] shall promulgate regulations to carry out such amendments not later than 1 year after the enactment of this Act [Dec. 19, 2007]."

Amendment by Pub. L. 110–140 effective on the date that is 1 day after Dec. 19, 2007, see section 1601 of Pub. L. 110–140, set out as an Effective Date note under section 1824 of Title 2, The Congress.

EFFECTIVE DATE OF 2005 AMENDMENT

Pub. L. 109–58, title XV, §1504(a)(2), Aug. 8, 2005, 119 Stat. 1077, provided that: "The amendments made by paragraph (1) [amending this section] apply—

"(A) in the case of a State that has received a waiver under section 209(b) of the Clean Air Act (42 U.S.C. 7543(b)), beginning on the date of enactment of this Act [Aug. 8, 2005]; and

"(B) in the case of any other State, beginning 270 days after the date of enactment of this Act [Aug. 8, 2005]."

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

SAVINGS

Pub. L. 109–58, title XV, §1504(d), Aug. 8, 2005, 119 Stat. 1079, provided that:

"(1) IN GENERAL.—Nothing in this section [amending this section and enacting provisions set out as notes under this section] or any amendment made by this section affects or prejudices any legal claim or action with respect to regulations promulgated by the Administrator [of the Environmental Protection Agency] before the date of enactment of this Act [Aug. 8, 2005] regarding—

"(A) emissions of toxic air pollutants from motor vehicles; or

"(B) the adjustment of standards applicable to a specific refinery or importer made under those regulations.

"(2) ADJUSTMENT OF STANDARDS.—

"(A) APPLICABILITY.—The Administrator may apply any adjustments to the standards applicable to a refinery or importer under subparagraph (B)(iii)(I) of section 211(k)(1) of the Clean Air Act [42 U.S.C. 7545(k)(1)(B)(iii)(I)] (as added by subsection (b)(2)), except that—

"(i) the Administrator shall revise the adjustments to be based only on calendar years 1999 and 2000;

"(ii) any such adjustment shall not be made at a level below the average percentage of reductions of emissions of toxic air pollutants for reformulated gasoline supplied to PADD I during calendar years 1999 and 2000; and

"(iii) in the case of an adjustment based on toxic air pollutant emissions from reformulated gasoline significantly below the national annual average emissions of toxic air pollutants from all reformulated gasoline—

"(I) the Administrator may revise the adjustment to take account of the scope of the prohibition on methyl tertiary butyl ether imposed by a State; and

"(II) any such adjustment shall require the refiner or importer, to the maximum extent practicable, to maintain the reduction achieved during calendar years 1999 and 2000 in the average annual aggregate emissions of toxic air pollutants from reformulated gasoline produced or distributed by the refiner or importer."

ENVIRONMENTAL AND RESOURCE CONSERVATION IMPACTS

Pub. L. 110–140, title II, §204, Dec. 19, 2007, 121 Stat. 1529, provided that:

"(a) IN GENERAL.—Not later than 3 years after the enactment of this section [Dec. 19, 2007] and every 3 years thereafter, the Administrator of the Environmental Protection Agency, in consultation with the Secretary of Agriculture and the Secretary of Energy, shall assess and report to Congress on the impacts to date and likely future impacts of the requirements of section 211(*o*) of the Clean Air Act [42 U.S.C. 7545(*o*)] on the following:

"(1) Environmental issues, including air quality, effects on hypoxia, pesticides, sediment, nutrient and pathogen levels in waters, acreage and function of waters, and soil environmental quality.

"(2) Resource conservation issues, including soil conservation, water availability, and ecosystem health and biodiversity, including impacts on forests, grasslands, and wetlands.

"(3) The growth and use of cultivated invasive or noxious plants and their impacts on the environment and agriculture.

In advance of preparing the report required by this subsection, the Administrator may seek the views of the National Academy of Sciences or another appropriate independent research institute. The report shall include the annual volume of imported renewable fuels and feedstocks for renewable fuels, and the environmental impacts outside the United States of producing such fuels and feedstocks. The report required by this subsection shall include recommendations for actions to address any adverse impacts found.

"(b) EFFECT ON AIR QUALITY AND OTHER ENVIRONMENTAL REQUIREMENTS.—Except as provided in section 211(*o*)(12) of the Clean Air Act [42 U.S.C. 7545(*o*)(12)], nothing in the amendments made by this title to section 211(*o*) of the Clean Air Act shall be construed as superseding, or limiting, any more environmentally protective requirement under the Clean Air Act [42 U.S.C. 7401 et seq.], or under any other provision of State or Federal law or regulation, including any environmental law or regulation."

TRANSITION RULES

Pub. L. 110–140, title II, §210(a), Dec. 19, 2007, 121 Stat. 1532, provided that:

"(1) For calendar year 2008, transportation fuel sold or introduced into commerce in the United States (except in noncontiguous States or territories), that is produced from facilities that commence construction after the date of enactment of this Act [Dec. 19, 2007] shall be treated as renewable fuel within the meaning of section 211(*o*) of the Clean Air Act [42 U.S.C. 7545(*o*)] only if it achieves at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions. For calendar years 2008 and 2009, any ethanol plant that is fired with natural gas, biomass, or any combination thereof is deemed to be in compliance with such 20 percent reduction requirement and with the 20 percent reduction requirement of section 211(*o*)(1) of the Clean Air Act. The terms used in this subsection shall have the same

meaning as provided in the amendment made by this Act to section 211(*o*) of the Clean Air Act.

"(2) Until January 1, 2009, the Administrator of the Environmental Protection Agency shall implement section 211(*o*) of the Clean Air Act and the rules promulgated under that section in accordance with the provisions of that section as in effect before the enactment of this Act and in accordance with the rules promulgated before the enactment of this Act, except that for calendar year 2008, the number '9.0' shall be substituted for the number '5.4' in the table in section 211(*o*)(2)(B) and in the corresponding rules promulgated to carry out those provisions. The Administrator is authorized to take such other actions as may be necessary to carry out this paragraph notwithstanding any other provision of law."

SURVEY OF RENEWABLE FUEL MARKET

Pub. L. 109–58, title XV, §1501(d), Aug. 8, 2005, 119 Stat. 1075, provided that:

"(1) SURVEY AND REPORT.—Not later than December 1, 2006, and annually thereafter, the Administrator of the Environmental Protection Agency (in consultation with the Secretary [of Energy] acting through the Administrator of the Energy Information Administration) shall—

"(A) conduct, with respect to each conventional gasoline use area and each reformulated gasoline use area in each State, a survey to determine the market shares of—

"(i) conventional gasoline containing ethanol;

"(ii) reformulated gasoline containing ethanol;

"(iii) conventional gasoline containing renewable fuel; and

"(iv) reformulated gasoline containing renewable fuel; and

"(B) submit to Congress, and make publicly available, a report on the results of the survey under subparagraph (A).

"(2) RECORDKEEPING AND REPORTING REQUIREMENTS.—The Administrator of the Environmental Protection Agency (hereinafter in this subsection referred to as the 'Administrator') may require any refiner, blender, or importer to keep such records and make such reports as are necessary to ensure that the survey conducted under paragraph (1) is accurate. The Administrator, to avoid duplicative requirements, shall rely, to the extent practicable, on existing reporting and recordkeeping requirements and other information available to the Administrator including gasoline distribution patterns that include multistate use areas.

"(3) APPLICABLE LAW.—Activities carried out under this subsection shall be conducted in a manner designed to protect confidentiality of individual responses."

FINDINGS

Pub. L. 109–58, title XV, §1502, Aug. 8, 2005, 119 Stat. 1076, provided that: "Congress finds that—

"(1) since 1979, methyl tertiary butyl ether (hereinafter in this section referred to as 'MTBE') has been used nationwide at low levels in gasoline to replace lead as an octane booster or anti-knocking agent;

"(2) Public Law 101–549 (commonly known as the 'Clean Air Act Amendments of 1990') (42 U.S.C. 7401 et seq.) [see Tables for classification] established a fuel oxygenate standard under which reformulated gasoline must contain at least 2 percent oxygen by weight; and

"(3) the fuel industry responded to the fuel oxygenate standard established by Public Law 101–549 by making substantial investments in—

"(A) MTBE production capacity; and

"(B) systems to deliver MTBE-containing gasoline to the marketplace."

CLAIMS FILED AFTER AUGUST 8, 2005

Pub. L. 109–58, title XV, §1503, Aug. 8, 2005, 119 Stat. 1076, provided that: "Claims and legal actions filed after the date of enactment of this Act [Aug. 8, 2005] related to allegations involving actual or threatened contamination of methyl tertiary butyl ether (MTBE) may be removed to the appropriate United States district court."

FINDINGS AND SENSE OF CONGRESS ON ETHANOL USAGE

Pub. L. 100–203, title I, §1508, Dec. 22, 1987, 101 Stat. 1330–29, provided that:

"(a) FINDINGS.—Congress finds that—

"(1) the United States is dependent for a large and growing share of its energy needs on the Middle East at a time when world petroleum reserves are declining;

"(2) the burning of gasoline causes pollution;

"(3) ethanol can be blended with gasoline to produce a cleaner source of fuel;

"(4) ethanol can be produced from grain, a renewable resource that is in considerable surplus in the United States;

"(5) the conversion of grain into ethanol would reduce farm program costs and grain surpluses; and

"(6) increasing the quantity of motor fuels that contain at least 10 percent ethanol from current levels to 50 percent by 1992 would create thousands of new jobs in ethanol production facilities.

"(b) SENSE OF CONGRESS.—It is the sense of Congress that the Administrator of the Environmental Protection Agency should use authority provided under the Clean Air Act (42 U.S.C. 7401 et seq.) to require greater use of ethanol as motor fuel."

AGRICULTURAL MACHINERY: STUDY OF UNLEADED FUEL

Pub. L. 99–198, title XVII, §1765, Dec. 23, 1985, 99 Stat. 1653, directed Administrator of EPA and Secretary of Agriculture jointly to conduct a study of use of fuel containing lead additives, and alternative lubricating additives, in gasoline engines that are used in agricultural machinery, and designed to combust fuel containing such additives, study to analyze potential for mechanical problems (including but not limited to valve recession) that may be associated with use of other fuels in such engines, and not later than Jan. 1, 1987, Administrator and Secretary to publish results of the study, with Administrator to publish in Federal Register notice of publication of such study and a summary thereof; directed Administrator, after notice and opportunity for hearing, but not later than 6 months after publication of the study, to make findings and recommendations on need for lead additives in gasoline to be used on a farm for farming purposes, including a determination of whether a modification of regulations limiting lead content of gasoline would be appropriate in the case of gasoline used on a farm for farming purposes, and submit to President and Congress a report containing the study, a summary of comments received during public hearing (including comments of Secretary), and findings and recommendations of Administrator made in accordance with clause (1), such report to be transmitted named congressional committees; directed Administrator between Jan. 1, 1986, and Dec. 31, 1987, to monitor actual lead content of leaded gasoline sold in the United States, with Administrator to determine average lead content of such gasoline for each 3-month period between Jan. 1, 1986, and Dec. 31, 1987, and if actual lead content falls below an average of 0.2 of a gram of lead per gallon in any such 3-month period, to report to Congress, and publish a notice thereof in Federal Register; provided that until Jan. 1, 1988, no regulation of Administrator issued under this section 211 could require an average lead content per gallon that is less than 0.1 of a gram per gallon; and authorized an appropriation.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or

other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7546. Renewable fuel

(a) Definitions

In this section:

(1) Municipal solid waste

The term "municipal solid waste" has the meaning given the term "solid waste" in section 6903 of this title.

(2) RFG State

The term "RFG State" means a State in which is located one or more covered areas (as defined in section 7545(k)(10)(D) of this title).

(3) Secretary

The term "Secretary" means the Secretary of Energy.

(b) Cellulosic biomass ethanol and municipal solid waste loan guarantee program

(1) In general

Funds may be provided for the cost (as defined in the Federal Credit Reform Act of 1990 (2 U.S.C. 661 et seq.)) of loan guarantees issued under title XIV of the Energy Policy Act[1] to carry out commercial demonstration projects for celluosic[2] biomass and sucrose-derived ethanol.

(2) Demonstration projects

(A) In general

The Secretary shall issue loan guarantees under this section to carry out not more than 4 projects to commercially demonstrate the feasibility and viability of producing cellulosic biomass ethanol or sucrose-derived ethanol, including at least 1 project that uses cereal straw as a feedstock and 1 project that uses municipal solid waste as a feedstock.

(B) Design capacity

Each project shall have a design capacity to produce at least 30,000,000 gallons of cellulosic biomass ethanol each year.

(3) Applicant assurances

An applicant for a loan guarantee under this section shall provide assurances, satisfactory to the Secretary, that—

(A) the project design has been validated through the operation of a continuous process facility with a cumulative output of at least 50,000 gallons of ethanol;

(B) the project has been subject to a full technical review;

(C) the project is covered by adequate project performance guarantees;

(D) the project, with the loan guarantee, is economically viable; and

(E) there is a reasonable assurance of repayment of the guaranteed loan.

(4) Limitations

(A) Maximum guarantee

Except as provided in subparagraph (B), a loan guarantee under this section may be issued for up to 80 percent of the estimated cost of a project, but may not exceed $250,000,000 for a project.

(B) Additional guarantees

(i) In general

The Secretary may issue additional loan guarantees for a project to cover up to 80 percent of the excess of actual project cost over estimated project cost but not to exceed 15 percent of the amount of the original guarantee.

(ii) Principal and interest

Subject to subparagraph (A), the Secretary shall guarantee 100 percent of the principal and interest of a loan made under subparagraph (A).

(5) Equity contributions

To be eligible for a loan guarantee under this section, an applicant for the loan guarantee shall have binding commitments from equity investors to provide an initial equity contribution of at least 20 percent of the total project cost.

(6) Insufficient amounts

If the amount made available to carry out this section is insufficient to allow the Secretary to make loan guarantees for 3 projects described in subsection (b) of this section, the Secretary shall issue loan guarantees for one or more qualifying projects under this section in the order in which the applications for the projects are received by the Secretary.

(7) Approval

An application for a loan guarantee under this section shall be approved or disapproved by the Secretary not later than 90 days after the application is received by the Secretary.

(c) Authorization of appropriations for resource center

There is authorized to be appropriated, for a resource center to further develop bioconversion technology using low-cost biomass for the production of ethanol at the Center for Biomass-Based Energy at the Mississippi State University and the Oklahoma State University, $4,000,000 for each of fiscal years 2005 through 2007.

(d) Renewable fuel production research and development grants

(1) In general

The Administrator shall provide grants for the research into, and development and implementation of, renewable fuel production technologies in RFG States with low rates of ethanol production, including low rates of production of cellulosic biomass ethanol.

(2) Eligibility

(A) In general

The entities eligible to receive a grant under this subsection are academic institu-

[1] See References in Text note below.

[2] So in original.

AUTHENTICATED U.S. GOVERNMENT INFORMATION GPO

SEC. 2. *Designation of Facilities.* (a) The Administrator of the Environmental Protection Agency (hereinafter referred to as "the Administrator") shall be responsible for the attainment of the purposes and objectives of this Order.

(b) In carrying out his responsibilities under this Order, the Administrator shall, in conformity with all applicable requirements of law, designate facilities which have given rise to a conviction for an offense under section 113(c)(1) of the Air Act [42 U.S.C. 7413(c)(1)] or section 309(c) of the Water Act [33 U.S.C. 1319(c)]. The Administrator shall, from time to time, publish and circulate to all Federal agencies lists of those facilities, together with the names and addresses of the persons who have been convicted of such offenses. Whenever the Administrator determines that the condition which gave rise to a conviction has been corrected, he shall promptly remove the facility and the name and address of the person concerned from the list.

SEC. 3. *Contracts, Grants, or Loans.* (a) Except as provided in section 8 of this Order, no Federal agency shall enter into any contract for the procurement of goods, materials, or services which is to be performed in whole or in part in a facility then designated by the Administrator pursuant to section 2.

(b) Except as provided in section 8 of this Order, no Federal agency authorized to extend Federal assistance by way of grant, loan, or contract shall extend such assistance in any case in which it is to be used to support any activity or program involving the use of a facility then designated by the Administrator pursuant to section 2.

SEC. 4. *Procurement, Grant, and Loan Regulations.* The Federal Procurement Regulations, the Armed Services Procurement Regulations, and to the extent necessary, any supplemental or comparable regulations issued by any agency of the Executive Branch shall, following consultation with the Administrator, be amended to require, as a condition of entering into, renewing, or extending any contract for the procurement of goods, materials, or services or extending any assistance by way of grant, loan, or contract, inclusion of a provision requiring compliance with the Air Act, the Water Act, and standards issued pursuant thereto in the facilities in which the contract is to be performed, or which are involved in the activity or program to receive assistance.

SEC. 5. *Rules and Regulations.* The Administrator shall issue such rules, regulations, standards, and guidelines as he may deem necessary or appropriate to carry out the purposes of this Order.

SEC. 6. *Cooperation and Assistance.* The head of each Federal agency shall take such steps as may be necessary to insure that all officers and employees of this agency whose duties entail compliance or comparable functions with respect to contracts, grants, and loans are familiar with the provisions of this Order. In addition to any other appropriate action, such officers and employees shall report promptly any condition in a facility which may involve noncompliance with the Air Act or the Water Act or any rules, regulations, standards, or guidelines issued pursuant to this Order to the head of the agency, who shall transmit such reports to the Administrator.

SEC. 7. *Enforcement.* The Administrator may recommend to the Department of Justice or other appropriate agency that legal proceedings be brought or other appropriate action be taken whenever he becomes aware of a breach of any provision required, under the amendments issued pursuant to section 4 of this Order, to be included in a contract or other agreement.

SEC. 8. *Exemptions—Reports to Congress.* (a) Upon a determination that the paramount interest of the United States so requires—

(1) The head of a Federal agency may exempt any contract, grant, or loan, and, following consultation with the Administrator, any class of contracts, grants or loans from the provisions of this Order. In any such case, the head of the Federal agency granting such exemption shall (A) promptly notify the Administrator of such exemption and the justification therefor; (B) review the necessity for each such exemption annually; and (C) report to the Administrator annually all such exemptions in effect. Exemptions granted pursuant to this section shall be for a period not to exceed one year. Additional exemptions may be granted for periods not to exceed one year upon the making of a new determination by the head of the Federal agency concerned.

(2) The Administrator may, by rule or regulation, exempt any or all Federal agencies from any or all of the provisions of this Order with respect to any class or classes of contracts, grants, or loans, which (A) involve less than specified dollar amounts, or (B) have a minimal potential impact upon the environment, or (C) involve persons who are not prime contractors or direct recipients of Federal assistance by way of contracts, grants, or loans.

(b) Federal agencies shall reconsider any exemption granted under subsection (a) whenever requested to do so by the Administrator.

(c) The Administrator shall annually notify the President and the Congress of all exemptions granted, or in effect, under this Order during the preceding year.

SEC. 9. *Related Actions.* The imposition of any sanction or penalty under or pursuant to this Order shall not relieve any person of any legal duty to comply with any provisions of the Air Act or the Water Act.

SEC. 10. *Applicability.* This Order shall not apply to contracts, grants, or loans involving the use of facilities located outside the United States.

SEC. 11. *Uniformity.* Rules, regulations, standards, and guidelines issued pursuant to this order and section 508 of the Water Act [33 U.S.C. 1368] shall, to the maximum extent feasible, be uniform with regulations issued pursuant to this order, Executive Order No. 11602 of June 29, 1971 [formerly set out above], and section 306 of the Air Act [this section].

SEC. 12. *Order Superseded.* Executive Order No. 11602 of June 29, 1971, is hereby superseded.

RICHARD NIXON.

§ 7607. Administrative proceedings and judicial review

(a) Administrative subpenas; confidentiality; witnesses

In connection with any determination under section 7410(f) of this title, or for purposes of obtaining information under section 7521(b)(4)[1] or 7545(c)(3) of this title, any investigation, monitoring, reporting requirement, entry, compliance inspection, or administrative enforcement proceeding under the[2] chapter (including but not limited to section 7413, section 7414, section 7420, section 7429, section 7477, section 7524, section 7525, section 7542, section 7603, or section 7606 of this title),,[3] the Administrator may issue subpenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for emission data, upon a showing satisfactory to the Administrator by such owner or operator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes of such owner or operator, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of title 18, except that such paper, book, document, or information may be dis-

[1] See References in Text note below.

[2] So in original. Probably should be "this".

[3] So in original.

closed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter, to persons carrying out the National Academy of Sciences' study and investigation provided for in section 7521(c) of this title, or when relevant in any proceeding under this chapter. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpena served upon any person under this subparagraph,[4] the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(b) Judicial review

(1) A petition for review of action of the Administrator in promulgating any national primary or secondary ambient air quality standard, any emission standard or requirement under section 7412 of this title, any standard of performance or requirement under section 7411 of this title,,[3] any standard under section 7521 of this title (other than a standard required to be prescribed under section 7521(b)(1) of this title), any determination under section 7521(b)(5)[1] of this title, any control or prohibition under section 7545 of this title, any standard under section 7571 of this title, any rule issued under section 7413, 7419, or under section 7420 of this title, or any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter may be filed only in the United States Court of Appeals for the District of Columbia. A petition for review of the Administrator's action in approving or promulgating any implementation plan under section 7410 of this title or section 7411(d) of this title, any order under section 7411(j) of this title, under section 7412 of this title, under section 7419 of this title, or under section 7420 of this title, or his action under section 1857c–10(c)(2)(A), (B), or (C) of this title (as in effect before August 7, 1977) or under regulations thereunder, or revising regulations for enhanced monitoring and compliance certification programs under section 7414(a)(3) of this title, or any other final action of the Administrator under this chapter (including any denial or disapproval by the Administrator under subchapter I of this chapter) which is locally or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit. Notwithstanding the preceding sentence a petition for review of any action referred to in such sentence may be filed only in the United States Court of Appeals for the District of Columbia if such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination. Any petition for review under this subsection shall be filed within sixty days from the date notice of such promulgation, approval, or action appears in the Federal Register, except that if such petition is based solely on grounds arising after such sixtieth day, then any petition for review under this subsection shall be filed within sixty days after such grounds arise. The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule or action under this section may be filed, and shall not postpone the effectiveness of such rule or action.

(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) shall not be subject to judicial review in civil or criminal proceedings for enforcement. Where a final decision by the Administrator defers performance of any nondiscretionary statutory action to a later time, any person may challenge the deferral pursuant to paragraph (1).

(c) Additional evidence

In any judicial proceeding in which review is sought of a determination under this chapter required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as to[5] the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

(d) Rulemaking

(1) This subsection applies to—

(A) the promulgation or revision of any national ambient air quality standard under section 7409 of this title,

(B) the promulgation or revision of an implementation plan by the Administrator under section 7410(c) of this title,

(C) the promulgation or revision of any standard of performance under section 7411 of this title, or emission standard or limitation under section 7412(d) of this title, any standard under section 7412(f) of this title, or any regulation under section 7412(g)(1)(D) and (F) of this title, or any regulation under section 7412(m) or (n) of this title,

(D) the promulgation of any requirement for solid waste combustion under section 7429 of this title,

[4] So in original. Probably should be "subsection,".

[5] So in original. The word "to" probably should not appear.

(E) the promulgation or revision of any regulation pertaining to any fuel or fuel additive under section 7545 of this title,

(F) the promulgation or revision of any aircraft emission standard under section 7571 of this title,

(G) the promulgation or revision of any regulation under subchapter IV–A of this chapter (relating to control of acid deposition),

(H) promulgation or revision of regulations pertaining to primary nonferrous smelter orders under section 7419 of this title (but not including the granting or denying of any such order),

(I) promulgation or revision of regulations under subchapter VI of this chapter (relating to stratosphere and ozone protection),

(J) promulgation or revision of regulations under part C of subchapter I of this chapter (relating to prevention of significant deterioration of air quality and protection of visibility),

(K) promulgation or revision of regulations under section 7521 of this title and test procedures for new motor vehicles or engines under section 7525 of this title, and the revision of a standard under section 7521(a)(3) of this title,

(L) promulgation or revision of regulations for noncompliance penalties under section 7420 of this title,

(M) promulgation or revision of any regulations promulgated under section 7541 of this title (relating to warranties and compliance by vehicles in actual use),

(N) action of the Administrator under section 7426 of this title (relating to interstate pollution abatement),

(O) the promulgation or revision of any regulation pertaining to consumer and commercial products under section 7511b(e) of this title,

(P) the promulgation or revision of any regulation pertaining to field citations under section 7413(d)(3) of this title,

(Q) the promulgation or revision of any regulation pertaining to urban buses or the clean-fuel vehicle, clean-fuel fleet, and clean fuel programs under part C of subchapter II of this chapter,

(R) the promulgation or revision of any regulation pertaining to nonroad engines or nonroad vehicles under section 7547 of this title,

(S) the promulgation or revision of any regulation relating to motor vehicle compliance program fees under section 7552 of this title,

(T) the promulgation or revision of any regulation under subchapter IV–A of this chapter (relating to acid deposition),

(U) the promulgation or revision of any regulation under section 7511b(f) of this title pertaining to marine vessels, and

(V) such other actions as the Administrator may determine.

The provisions of section 553 through 557 and section 706 of title 5 shall not, except as expressly provided in this subsection, apply to actions to which this subsection applies. This subsection shall not apply in the case of any rule or circumstance referred to in subparagraphs (A) or (B) of subsection 553(b) of title 5.

(2) Not later than the date of proposal of any action to which this subsection applies, the Administrator shall establish a rulemaking docket for such action (hereinafter in this subsection referred to as a "rule"). Whenever a rule applies only within a particular State, a second (identical) docket shall be simultaneously established in the appropriate regional office of the Environmental Protection Agency.

(3) In the case of any rule to which this subsection applies, notice of proposed rulemaking shall be published in the Federal Register, as provided under section 553(b) of title 5, shall be accompanied by a statement of its basis and purpose and shall specify the period available for public comment (hereinafter referred to as the "comment period"). The notice of proposed rulemaking shall also state the docket number, the location or locations of the docket, and the times it will be open to public inspection. The statement of basis and purpose shall include a summary of—

(A) the factual data on which the proposed rule is based;

(B) the methodology used in obtaining the data and in analyzing the data; and

(C) the major legal interpretations and policy considerations underlying the proposed rule.

The statement shall also set forth or summarize and provide a reference to any pertinent findings, recommendations, and comments by the Scientific Review Committee established under section 7409(d) of this title and the National Academy of Sciences, and, if the proposal differs in any important respect from any of these recommendations, an explanation of the reasons for such differences. All data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule.

(4)(A) The rulemaking docket required under paragraph (2) shall be open for inspection by the public at reasonable times specified in the notice of proposed rulemaking. Any person may copy documents contained in the docket. The Administrator shall provide copying facilities which may be used at the expense of the person seeking copies, but the Administrator may waive or reduce such expenses in such instances as the public interest requires. Any person may request copies by mail if the person pays the expenses, including personnel costs to do the copying.

(B)(i) Promptly upon receipt by the agency, all written comments and documentary information on the proposed rule received from any person for inclusion in the docket during the comment period shall be placed in the docket. The transcript of public hearings, if any, on the proposed rule shall also be included in the docket promptly upon receipt from the person who transcribed such hearings. All documents which become available after the proposed rule has been published and which the Administrator determines are of central relevance to the rulemaking shall be placed in the docket as soon as possible after their availability.

(ii) The drafts of proposed rules submitted by the Administrator to the Office of Management

and Budget for any interagency review process prior to proposal of any such rule, all documents accompanying such drafts, and all written comments thereon by other agencies and all written responses to such written comments by the Administrator shall be placed in the docket no later than the date of proposal of the rule. The drafts of the final rule submitted for such review process prior to promulgation and all such written comments thereon, all documents accompanying such drafts, and written responses thereto shall be placed in the docket no later than the date of promulgation.

(5) In promulgating a rule to which this subsection applies (i) the Administrator shall allow any person to submit written comments, data, or documentary information; (ii) the Administrator shall give interested persons an opportunity for the oral presentation of data, views, or arguments, in addition to an opportunity to make written submissions; (iii) a transcript shall be kept of any oral presentation; and (iv) the Administrator shall keep the record of such proceeding open for thirty days after completion of the proceeding to provide an opportunity for submission of rebuttal and supplementary information.

(6)(A) The promulgated rule shall be accompanied by (i) a statement of basis and purpose like that referred to in paragraph (3) with respect to a proposed rule and (ii) an explanation of the reasons for any major changes in the promulgated rule from the proposed rule.

(B) The promulgated rule shall also be accompanied by a response to each of the significant comments, criticisms, and new data submitted in written or oral presentations during the comment period.

(C) The promulgated rule may not be based (in part or whole) on any information or data which has not been placed in the docket as of the date of such promulgation.

(7)(A) The record for judicial review shall consist exclusively of the material referred to in paragraph (3), clause (i) of paragraph (4)(B), and subparagraphs (A) and (B) of paragraph (6).

(B) Only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit (as provided in subsection (b) of this section). Such reconsideration shall not postpone the effectiveness of the rule. The effectiveness of the rule may be stayed during such reconsideration, however, by the Administrator or the court for a period not to exceed three months.

(8) The sole forum for challenging procedural determinations made by the Administrator under this subsection shall be in the United States court of appeals for the appropriate circuit (as provided in subsection (b) of this section) at the time of the substantive review of the rule. No interlocutory appeals shall be permitted with respect to such procedural determinations. In reviewing alleged procedural errors, the court may invalidate the rule only if the errors were so serious and related to matters of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made.

(9) In the case of review of any action of the Administrator to which this subsection applies, the court may reverse any such action found to be—

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

(B) contrary to constitutional right, power, privilege, or immunity;

(C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; or

(D) without observance of procedure required by law, if (i) such failure to observe such procedure is arbitrary or capricious, (ii) the requirement of paragraph (7)(B) has been met, and (iii) the condition of the last sentence of paragraph (8) is met.

(10) Each statutory deadline for promulgation of rules to which this subsection applies which requires promulgation less than six months after date of proposal may be extended to not more than six months after date of proposal by the Administrator upon a determination that such extension is necessary to afford the public, and the agency, adequate opportunity to carry out the purposes of this subsection.

(11) The requirements of this subsection shall take effect with respect to any rule the proposal of which occurs after ninety days after August 7, 1977.

(e) Other methods of judicial review not authorized

Nothing in this chapter shall be construed to authorize judicial review of regulations or orders of the Administrator under this chapter, except as provided in this section.

(f) Costs

In any judicial proceeding under this section, the court may award costs of litigation (including reasonable attorney and expert witness fees) whenever it determines that such award is appropriate.

(g) Stay, injunction, or similar relief in proceedings relating to noncompliance penalties

In any action respecting the promulgation of regulations under section 7420 of this title or the administration or enforcement of section 7420 of this title no court shall grant any stay, injunctive, or similar relief before final judgment by such court in such action.

(h) Public participation

It is the intent of Congress that, consistent with the policy of subchapter II of chapter 5 of

title 5, the Administrator in promulgating any regulation under this chapter, including a regulation subject to a deadline, shall ensure a reasonable period for public participation of at least 30 days, except as otherwise expressly provided in section[6] 7407(d), 7502(a), 7511(a) and (b), and 7512(a) and (b) of this title.

(July 14, 1955, ch. 360, title III, § 307, as added Pub. L. 91–604, § 12(a), Dec. 31, 1970, 84 Stat. 1707; amended Pub. L. 92–157, title III, § 302(a), Nov. 18, 1971, 85 Stat. 464; Pub. L. 93–319, § 6(c), June 22, 1974, 88 Stat. 259; Pub. L. 95–95, title III, §§ 303(d), 305(a), (c), (f)–(h), Aug. 7, 1977, 91 Stat. 772, 776, 777; Pub. L. 95–190, § 14(a)(79), (80), Nov. 16, 1977, 91 Stat. 1404; Pub. L. 101–549, title I, §§ 108(p), 110(5), title III, § 302(g), (h), title VII, §§ 702(c), 703, 706, 707(h), 710(b), Nov. 15, 1990, 104 Stat. 2469, 2470, 2574, 2681–2684.)

REFERENCES IN TEXT

Section 7521(b)(4) of this title, referred to in subsec. (a), was repealed by Pub. L. 101–549, title II, § 230(2), Nov. 15, 1990, 104 Stat. 2529.

Section 7521(b)(5) of this title, referred to in subsec. (b)(1), was repealed by Pub. L. 101–549, title II, § 230(3), Nov. 15, 1990, 104 Stat. 2529.

Section 1857c–10(c)(2)(A), (B), or (C) of this title (as in effect before August 7, 1977), referred to in subsec. (b)(1), was in the original "section 119(c)(2)(A), (B), or (C) (as in effect before the date of enactment of the Clean Air Act Amendments of 1977)", meaning section 119 of act July 14, 1955, ch. 360, title I, as added June 22, 1974, Pub. L. 93–319, § 3, 88 Stat. 248, (which was classified to section 1857c–10 of this title) as in effect prior to the enactment of Pub. L. 95–95, Aug. 7, 1977, 91 Stat. 691, effective Aug. 7, 1977. Section 112(b)(1) of Pub. L. 95–95 repealed section 119 of act July 14, 1955, ch. 360, title I, as added by Pub. L. 93–319, and provided that all references to such section 119 in any subsequent enactment which supersedes Pub. L. 93–319 shall be construed to refer to section 113(d) of the Clean Air Act and to paragraph (5) thereof in particular which is classified to subsec. (d)(5) of section 7413 of this title. Section 7413(d) of this title was subsequently amended generally by Pub. L. 101–549, title VII, § 701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, no longer relates to final compliance orders. Section 117(b) of Pub. L. 95–95 added a new section 119 of act July 14, 1955, which is classified to section 7419 of this title.

Part C of subchapter I of this chapter, referred to in subsec. (d)(1)(J), was in the original "subtitle C of title I", and was translated as reading "part C of title I" to reflect the probable intent of Congress, because title I does not contain subtitles.

CODIFICATION

In subsec. (h), "subchapter II of chapter 5 of title 5" was substituted for "the Administrative Procedures Act" on authority of Pub. L. 89–554, § 7(b), Sept. 6, 1966, 80 Stat. 631, the first section of which enacted Title 5, Government Organization and Employees.

Section was formerly classified to section 1857h–5 of this title.

PRIOR PROVISIONS

A prior section 307 of act July 14, 1955, was renumbered section 314 by Pub. L. 91–604 and is classified to section 7614 of this title.

Another prior section 307 of act July 14, 1955, ch. 360, title III, formerly § 14, as added Dec. 17, 1963, Pub. L. 88–206, § 1, 77 Stat. 401, was renumbered section 307 by Pub. L. 89–272, renumbered section 310 by Pub. L. 90–148, and renumbered section 317 by Pub. L. 91–604, and is set out as a Short Title note under section 7401 of this title.

[6] So in original. Probably should be "sections".

AMENDMENTS

1990—Subsec. (a). Pub. L. 101–549, § 703, struck out par. (1) designation at beginning, inserted provisions authorizing issuance of subpoenas and administration of oaths for purposes of investigations, monitoring, reporting requirements, entries, compliance inspections, or administrative enforcement proceedings under this chapter, and struck out "or section 7521(b)(5)" after "section 7410(f)".

Subsec. (b)(1). Pub. L. 101–549, § 706(2), which directed amendment of second sentence by striking "under section 7413(d) of this title" immediately before "under section 7419 of this title", was executed by striking "under section 7413(d) of this title," before "under section 7419 of this title", to reflect the probable intent of Congress.

Pub. L. 101–549, § 706(1), inserted at end: "The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule or action under this section may be filed, and shall not postpone the effectiveness of such rule or action."

Pub. L. 101–549, § 702(c), inserted "or revising regulations for enhanced monitoring and compliance certification programs under section 7414(a)(3) of this title," before "or any other final action of the Administrator".

Pub. L. 101–549, § 302(g), substituted "section 7412" for "section 7412(c)".

Subsec. (b)(2). Pub. L. 101–549, § 707(h), inserted sentence at end authorizing challenge to deferrals of performance of nondiscretionary statutory actions.

Subsec. (d)(1)(C). Pub. L. 101–549, § 110(5)(A), amended subpar. (C) generally. Prior to amendment, subpar. (C) read as follows: "the promulgation or revision of any standard of performance under section 7411 of this title or emission standard under section 7412 of this title,".

Subsec. (d)(1)(D), (E). Pub. L. 101–549, § 302(h), added subpar. (D) and redesignated former subpar. (D) as (E). Former subpar. (E) redesignated (F).

Subsec. (d)(1)(F). Pub. L. 101–549, § 302(h), redesignated subpar. (E) as (F). Former subpar. (F) redesignated (G).

Pub. L. 101–549, § 110(5)(B), amended subpar. (F) generally. Prior to amendment, subpar. (F) read as follows: "promulgation or revision of regulations pertaining to orders for coal conversion under section 7413(d)(5) of this title (but not including orders granting or denying any such orders),".

Subsec. (d)(1)(G), (H). Pub. L. 101–549, § 302(h), redesignated subpars. (F) and (G) as (G) and (H), respectively. Former subpar. (H) redesignated (I).

Subsec. (d)(1)(I). Pub. L. 101–549, § 710(b), which directed that subpar. (H) be amended by substituting "subchapter VI of this chapter" for "part B of subchapter I of this chapter", was executed by making the substitution in subpar. (I), to reflect the probable intent of Congress and the intervening redesignation of subpar. (H) as (I) by Pub. L. 101–549, § 302(h), see below.

Pub. L. 101–549, § 302(h), redesignated subpar. (H) as (I). Former subpar. (I) redesignated (J).

Subsec. (d)(1)(J) to (M). Pub. L. 101–549, § 302(h), redesignated subpars. (I) to (L) as (J) to (M), respectively. Former subpar. (M) redesignated (N).

Subsec. (d)(1)(N). Pub. L. 101–549, § 302(h), redesignated subpar. (M) as (N). Former subpar. (N) redesignated (O).

Pub. L. 101–549, § 110(5)(C), added subpar. (N) and redesignated former subpar. (N) as (U).

Subsec. (d)(1)(O) to (T). Pub. L. 101–549, § 302(h), redesignated subpars. (N) to (S) as (O) to (T), respectively. Former subpar. (T) redesignated (U).

Pub. L. 101–549, § 110(5)(C), added subpars. (O) to (T).

Subsec. (d)(1)(U). Pub. L. 101–549, § 302(h), redesignated subpar. (T) as (U). Former subpar. (U) redesignated (V).

Pub. L. 101–549, § 110(5)(C), redesignated former subpar. (N) as (U).

Subsec. (d)(1)(V). Pub. L. 101–549, § 302(h), redesignated subpar. (U) as (V).

Subsec. (h). Pub. L. 101–549, §108(p), added subsec. (h).

1977—Subsec. (b)(1). Pub. L. 95–190 in text relating to filing of petitions for review in the United States Court of Appeals for the District of Columbia inserted provision respecting requirements under sections 7411 and 7412 of this title, and substituted provisions authorizing review of any rule issued under section 7413, 7419, or 7420 of this title, for provisions authorizing review of any rule or order issued under section 7420 of this title, relating to noncompliance penalties, and in text relating to filing of petitions for review in the United States Court of Appeals for the appropriate circuit inserted provision respecting review under section 7411(j), 7412(c), 7413(d), or 7419 of this title, provision authorizing review under section 1857c–10(c)(2)(A), (B), or (C) to the period prior to Aug. 7, 1977, and provisions authorizing review of denials or disapprovals by the Administrator under subchapter I of this chapter.

Pub. L. 95–95, §305(c), (h), inserted rules or orders issued under section 7420 of this title (relating to noncompliance penalties) and any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter to the enumeration of actions of the Administrator for which a petition for review may be filed only in the United States Court of Appeals for the District of Columbia, added the approval or promulgation by the Administrator of orders under section 7420 of this title, or any other final action of the Administrator under this chapter which is locally or regionally applicable to the enumeration of actions by the Administrator for which a petition for review may be filed only in the United States Court of Appeals for the appropriate circuit, inserted provision that petitions otherwise capable of being filed in the Court of Appeals for the appropriate circuit may be filed only in the Court of Appeals for the District of Columbia if the action is based on a determination of nationwide scope, and increased from 30 days to 60 days the period during which the petition must be filed.

Subsec. (d). Pub. L. 95–95, §305(a), added subsec. (d).

Subsec. (e). Pub. L. 95–95, §303(d), added subsec. (e).

Subsec. (f). Pub. L. 95–95, §305(f), added subsec. (f).

Subsec. (g). Pub. L. 95–95, §305(g), added subsec. (g).

1974—Subsec. (b)(1). Pub. L. 93–319 inserted reference to the Administrator's action under section 1857c–10(c)(2)(A), (B), or (C) of this title or under regulations thereunder and substituted reference to the filing of a petition within 30 days from the date of promulgation, approval, or action for reference to the filing of a petition within 30 days from the date of promulgation or approval.

1971—Subsec. (a)(1). Pub. L. 92–157 substituted reference to section "7545(c)(3)" for "7545(c)(4)" of this title.

EFFECTIVE DATE OF 1977 AMENDMENT

Amendment by Pub. L. 95–95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub. L. 95–95, set out as a note under section 7401 of this title.

TERMINATION OF ADVISORY COMMITTEES

Advisory committees established after Jan. 5, 1973, to terminate not later than the expiration of the 2-year period beginning on the date of their establishment, unless, in the case of a committee established by the President or an officer of the Federal Government, such committee is renewed by appropriate action prior to the expiration of such 2-year period, or in the case of a committee established by the Congress, its duration is otherwise provided for by law. See section 14 of Pub. L. 92–463, Oct. 6, 1972, 86 Stat. 776, set out in the Appendix to Title 5, Government Organization and Employees.

PENDING ACTIONS AND PROCEEDINGS

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub. L. 95–95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub. L. 95–95, see section 406(a) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub. L. 95–95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with act July 14, 1955, as amended by Pub. L. 95–95 [this chapter], see section 406(b) of Pub. L. 95–95, set out as an Effective Date of 1977 Amendment note under section 7401 of this title.

§ 7608. Mandatory licensing

Whenever the Attorney General determines, upon application of the Administrator—

(1) that—

(A) in the implementation of the requirements of section 7411, 7412, or 7521 of this title, a right under any United States letters patent, which is being used or intended for public or commercial use and not otherwise reasonably available, is necessary to enable any person required to comply with such limitation to so comply, and

(B) there are no reasonable alternative methods to accomplish such purpose, and

(2) that the unavailability of such right may result in a substantial lessening of competition or tendency to create a monopoly in any line of commerce in any section of the country,

the Attorney General may so certify to a district court of the United States, which may issue an order requiring the person who owns such patent to license it on such reasonable terms and conditions as the court, after hearing, may determine. Such certification may be made to the district court for the district in which the person owning the patent resides, does business, or is found.

(July 14, 1955, ch. 360, title III, §308, as added Pub. L. 91–604, §12(a), Dec. 31, 1970, 84 Stat. 1708.)

CODIFICATION

Section was formerly classified to section 1857h–6 of this title.

PRIOR PROVISIONS

A prior section 308 of act July 14, 1955, was renumbered section 315 by Pub. L. 91–604 and is classified to section 7615 of this title.

MODIFICATION OR RESCISSION OF RULES, REGULATIONS, ORDERS, DETERMINATIONS, CONTRACTS, CERTIFICATIONS, AUTHORIZATIONS, DELEGATIONS, AND OTHER ACTIONS

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to act July 14, 1955, the Clean Air Act, as in effect

ELECTRONIC CODE OF FEDERAL REGULATIONS

e-CFR Data is current as of February 6, 2014

Title 40: Protection of Environment
PART 80—REGULATION OF FUELS AND FUEL ADDITIVES
Subpart M—Renewable Fuel Standard

---

§80.1406 Who is an obligated party under the RFS program?

(a)(1) An *obligated party* is any refiner that produces gasoline or diesel fuel within the 48 contiguous states or Hawaii, or any importer that imports gasoline or diesel fuel into the 48 contiguous states or Hawaii during a compliance period. A party that simply blends renewable fuel into gasoline or diesel fuel, as defined in §80.1407(c) or (e), is not an obligated party.

(2) If the Administrator approves a petition of Alaska or a United States territory to opt-in to the renewable fuel program under the provisions in §80.1443, then "obligated party" shall also include any refiner that produces gasoline or diesel fuel within that state or territory, or any importer that imports gasoline or diesel fuel into that state or territory.

(b) For each compliance period starting with 2010, an obligated party is required to demonstrate, pursuant to §80.1427, that it has satisfied the Renewable Volume Obligations for that compliance period, as specified in §80.1407(a).

(c) *Aggregation of facilities*—(1) Except as provided in paragraphs (c)(2), (d) and (e) of this section, an obligated party may comply with the requirements of paragraph (b) of this section in the aggregate for all of the refineries that it operates, or for each refinery individually.

(2) An obligated party that carries a deficit into year i+1 must use the same approach to aggregation of facilities in year i+1 as it did in year i.

(d) An obligated party must comply with the requirements of paragraph (b) of this section for all of its imported gasoline or diesel fuel in the aggregate.

(e) An obligated party that is both a refiner and importer must comply with the requirements of paragraph (b) of this section for its imported gasoline or diesel fuel separately from gasoline or diesel fuel produced by its domestic refinery or refineries.

(f) Where a refinery or import facility is jointly owned by two or more parties, the requirements of paragraph (b) of this section may be met by one of the joint owners for all of the gasoline or diesel fuel produced/imported at the facility, or each party may meet the requirements of paragraph (b) of this section for the portion of the gasoline or diesel fuel that it produces or imports, as long as all of the gasoline or diesel fuel produced/imported at the facility is accounted for in determining the Renewable Volume Obligations under §80.1407. In either case, all joint owners are subject to the liability provisions of §80.1461(d).

(g) The requirements in paragraph (b) of this section apply to the following compliance periods: Beginning in 2010, and every year thereafter, the compliance period is January 1 through December 31.

[75 FR 14863, Mar. 26, 2010, as amended at 75 FR 26037, May 10, 2010]

ELECTRONIC CODE OF FEDERAL REGULATIONS

e-CFR Data is current as of February 6, 2014

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PART 80—REGULATION OF FUELS AND FUEL ADDITIVES
Subpart M—Renewable Fuel Standard

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§80.1415 How are equivalence values assigned to renewable fuel?

(a)(1) Each gallon of a renewable fuel, or gallon equivalent pursuant to paragraph (b)(5) or (b)(6) of this section, shall be assigned an equivalence value by the producer or importer pursuant to paragraph (b) or (c) of this section.

(2) The equivalence value is a number that is used to determine how many gallon-RINs can be generated for a gallon of renewable fuel according to §80.1426.

(b) Equivalence values shall be assigned for certain renewable fuels as follows:

(1) Ethanol which is denatured shall have an equivalence value of 1.0.

(2) Biodiesel (mono-alkyl ester) shall have an equivalence value of 1.5.

(3) Butanol shall have an equivalence value of 1.3.

(4) Non-ester renewable diesel with a lower heating value of at least 123,500 Btu/gal shall have an equivalence value of 1.7.

(5) 77,000 Btu (lower heating value) of biogas shall represent one gallon of renewable fuel with an equivalence value of 1.0.

(6) 22.6 kW-hr of electricity shall represent one gallon of renewable fuel with an equivalence value of 1.0.

(7) For all other renewable fuels, a producer or importer shall submit an application to the Agency for an equivalence value following the provisions of paragraph (c) of this section. A producer or importer may also submit an application for an alternative equivalence value pursuant to paragraph (c) if the renewable fuel is listed in this paragraph (b), but the producer or importer has reason to believe that a different equivalence value than that listed in this paragraph (b) is warranted.

(c) *Calculation of new equivalence values.*

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

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

Where:

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

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

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

(2) The application for an equivalence value shall include a technical justification that includes all the following:

(i) A calculation for the requested equivalence value according to the equation in paragraph (c)(1) of this section, including supporting documentation for the value of EC used in the calculation such as a certificate of analysis from a laboratory that verifies the lower heating value in Btu per gallon of the renewable fuel produced.

(ii) For each feedstock, 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 that also qualifies as a renewable fuel, state whether or not RINs have been previously generated for such feedstock.

(iv) A description of the renewable fuel and the production process, including a block diagram that shows all inputs and outputs at each step of the production process with a sample quantity of all inputs and outputs for one batch of renewable fuel produced.

(3) The Agency will review the technical justification and assign an appropriate equivalence value to the renewable fuel based on the procedure in this paragraph (c).

(4) Applications for equivalence values must be sent to one of the following addresses:

(i) *For U.S. Mail:* U.S. EPA, Attn: RFS2 Program Equivalence Value Application, 6406J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

(ii) *For overnight or courier services:* U.S. EPA, Attn: RFS2 Program Equivalence Value Application, 6406J, 1310 L Street, NW., 6th floor, Washington, DC 20005. (202) 343-9038.

(5) All applications required under this section shall be submitted on forms and following procedures prescribed by the Administrator.

[75 FR 14863, Mar. 26, 2010, as amended at 75 FR 26037, May 10, 2010; 77 FR 1355, Jan. 9, 2012]

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Title 40: Protection of Environment
PART 80—REGULATION OF FUELS AND FUEL ADDITIVES
Subpart M—Renewable Fuel Standard

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

(a) *General requirements.* (1) To the extent permitted under paragraphs (b) and (c) of this section, producers and importers of renewable fuel must generate RINs to represent that fuel if the fuel:

(i) Qualifies for a D code pursuant to §80.1426(f), or EPA has approved a petition for use of a D code pursuant to §80.1416; and

(ii) Is demonstrated to be produced from renewable biomass pursuant to the reporting requirements of §80.1451 and the recordkeeping requirements of §80.1454; and

(A) Feedstocks meeting the requirements of renewable biomass through the aggregate compliance provision at §80.1454(g) are deemed to be renewable biomass.

(B) [Reserved]

(iii) Was produced in compliance with the registration requirements of §80.1450, the reporting requirements of §80.1451, the recordkeeping requirements of §80.1454, and all other applicable regulations of this subpart M.

(2) To generate RINs for imported renewable fuel, including any renewable fuel contained in imported transportation fuel, heating oil, or jet fuel, importers must obtain information from a foreign producer that is registered pursuant to §80.1450 sufficient to make the appropriate determination regarding the applicable D code and compliance with the renewable biomass definition for each imported batch for which RINs are generated.

(3) A party generating a RIN shall specify the appropriate numerical values for each component of the RIN in accordance with the provisions of §80.1425(a) and paragraph (f) of this section.

(b) *Regional applicability.*—(1) Except as provided in paragraph (c) of this section, a RIN must be generated by a renewable fuel producer or importer for a batch of renewable fuel that satisfies the requirements of paragraph (a)(1) of this section if it is produced or imported for use as transportation fuel, heating oil, or jet fuel in the 48 contiguous states or Hawaii.

(2) If the Administrator approves a petition of Alaska or a United States territory to opt-in to the renewable fuel program under the provisions in §80.1443, then the requirements of paragraph (b)(1) of this section shall also apply to renewable fuel produced or imported for use as transportation fuel, heating oil, or jet fuel in that state or territory beginning in the next calendar year.

(c) *Cases in which RINs are not generated.*—(1) Fuel producers and importers may not generate RINs for fuel that is not designated or intended for use as transportation fuel, heating oil, or jet fuel.

(2) *Small producer/importer threshold.* Pursuant to §80.1455(a) and (b), renewable fuel producers that produce less than 10,000 gallons a year of renewable fuel, and importers that import less than 10,000 gallons a year of renewable fuel, are not required to generate and assign RINs to batches of

renewable fuel that satisfy the requirements of paragraph (a)(1) of this section that they produce or import.

(3) *Temporary new producer threshold.* Pursuant to §80.1455(c) and (d), new renewable fuel producers that produce less than 125,000 gallons of renewable fuel a year are not required to generate and assign RINs to batches of renewable fuel to satisfy the requirements of paragraph (a)(1) of this section.

(i) The provisions of this paragraph (c)(3) apply only to new facilities, for a maximum of three years beginning with the calendar year in which the production facility produces its first gallon of renewable fuel.

(ii) [Reserved]

(4) Importers shall not generate RINs for renewable fuel imported from a foreign renewable fuel producer, or for renewable fuel made with ethanol produced by a foreign ethanol producer, unless the foreign renewable fuel producer or foreign ethanol producer is registered with EPA as required in §80.1450.

(5) Importers shall not generate RINs for renewable fuel that has already been assigned RINs by a registered foreign producer.

(6) A party is prohibited from generating RINs for a volume of fuel that it produces if:

(i) The fuel does not meet the requirements of paragraph (a)(1) of this section; or

(ii) The fuel has been produced from a chemical conversion process that uses another renewable fuel as a feedstock, the renewable fuel used as a feedstock was produced by another party, and RINs were received with the renewable fuel.

(A) Parties who produce renewable fuel made from a feedstock which itself was a renewable fuel received with RINs, shall assign the original RINs to the new renewable fuel.

(B) [Reserved]

(7) For renewable fuel oil that is heating oil as defined in paragraph (2) of the definition of heating oil in §80.1401, renewable fuel producers and importers shall not generate RINs unless they have received affidavits from the final end user or users of the fuel oil as specified in §80.1451(b)(1)(ii)(T)(*3*).

(d)(1) *Definition of batch.* For the purposes of this section and §80.1425, a "batch of renewable fuel" is a volume of renewable fuel that has been assigned a unique identifier within a calendar year by the producer or importer of the renewable fuel in accordance with the provisions of this section and §80.1425.

(i) The number of gallon-RINs generated for a batch of renewable fuel may not exceed 99,999,999.

(ii) A batch of renewable fuel cannot represent renewable fuel produced or imported in excess of one calendar month.

(2) Multiple gallon-RINs generated to represent a given volume of renewable fuel can be represented by a single batch-RIN through the appropriate designation of the RIN volume codes SSSSSSSS and EEEEEEEE.

(i) The value of SSSSSSSS in the batch-RIN shall be 00000001 to represent the first gallon-RIN associated with the volume of renewable fuel.

(ii) The value of EEEEEEEE in the batch-RIN shall represent the last gallon-RIN associated with the volume of renewable fuel, based on the RIN volume V_{RIN} determined pursuant to paragraph (f) of this section.

(iii) Under §80.1452, RIN volumes will be managed by EMTS. RIN codes SSSSSSSS and EEEEEEEE do not have a role in EMTS.

(e) *Assignment of RINs to batches.*—(1) Except as provided in paragraph (g) of this section for delayed RINs, the producer or importer of renewable fuel must assign all RINs generated to volumes of renewable fuel.

(2) A RIN is assigned to a volume of renewable fuel when ownership of the RIN is transferred along with the transfer of ownership of the volume of renewable fuel, pursuant to §80.1428(a).

(3) All assigned RINs shall have a K code value of 1.

(f) *Generation of RINs*—(1) *Applicable pathways.* D codes shall be used in RINs generated by producers or importers of renewable fuel according to the pathways listed in Table 1 to this section, paragraph (f)(6) of this section, or as approved by the Administrator. In choosing an appropriate D code, producers and importers may disregard any incidental, *de minimis* feedstock contaminants that are impractical to remove and are related to customary feedstock production and transport. 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.

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
A	Ethanol	Corn starch	All of the following: Dry mill process, using natural gas, biomass, or biogas for process energy and at least two advanced technologies from Table 2 to this section	6
B	Ethanol	Corn starch	All of the following: Dry mill process, using natural gas, biomass, or biogas for process energy and at least one of the advanced technologies from Table 2 to this section plus drying no more than 65% of the distillers grains with solubles it markets annually	6
C	Ethanol	Corn starch	All of the following: Dry mill process, using natural gas, biomass, or biogas for process energy and drying no more than 50% of the distillers grains with solubles it markets annually	6
D	Ethanol	Corn starch	Wet mill process using biomass or biogas for process energy	6
E	Ethanol	Starches from crop residue and annual covercrops	Fermentation using natural gas, biomass, or biogas for process energy	6
F	Biodiesel, renewable diesel, jet fuel and heating oil	Soy bean oil; Oil from annual covercrops; Algal oil; Biogenic waste oils/fats/greases; Non-food grade corn oil *Camelina sativa* oil	One of the following: Trans-Esterification Hydrotreating Excluding processes that co-process renewable biomass and petroleum	4
G	Biodiesel, heating oil	Canola/Rapeseed oil	Trans-Esterification using natural gas or biomass for process energy	4
H	Biodiesel, renewable diesel, jet fuel	Soy bean oil; Oil from annual covercrops; Algal oil; Biogenic waste	One of the following: Trans-Esterification Hydrotreating Includes	5

	and heating oil	oils/fats/greases; Non-food grade corn oil *Camelina sativa* oil	only processes that co-process renewable biomass and petroleum	
I	Naphtha, LPG	*Camelina sativa* oil	Hydrotreating	5
J	Ethanol	Sugarcane	Fermentation	5
K	Ethanol	Cellulosic Biomass from crop residue, slash, pre-commercial thinnings and tree residue, annual covercrops, switchgrass, miscanthus, Energy cane, *Arundo donax,* and *Pennisetum purpureum;* cellulosic components of separated yard waste; cellulosic components of separated food waste; and cellulosic components of separated MSW	Any	3
L	Cellulosic diesel, jet fuel and heating oil	Cellulosic Biomass from crop residue, slash, pre-commercial thinnings and tree residue, annual covercrops, switchgrass, miscanthus, energy cane, *Arundo donax,* and *Pennisetum purpureum;* cellulosic components of separated yard waste; cellulosic components of separated food waste; and cellulosic components of separated MSW	Any	7
M	Renewable gasoline and renewable gasoline blendstock	Cellulosic Biomass from crop residue, slash, pre-commercial thinnings, tree residue, annual cover crops; cellulosic components of separated yard waste; cellulosic components of separated food waste; and cellulosic components of separated MSW	Catalytic Pyrolysis and Upgrading, Gasification and Upgrading, Thermo-Catalytic Hydrodeoxygenation and Upgrading, Direct Biological Conversion, Biological Conversion and Upgrading, all utilizing natural gas, biogas, and/or biomass as the only process energy sources Any process utilizing biogas and/or biomass as the only process energy sources	3
N	Naphtha	Cellulosic biomass from switchgrass, miscanthus, energy cane, *Arundo donax,* and *Pennisetum purpureum*	Gasification and upgrading	3
O	Butanol	Corn starch	Fermentation; dry mill using natural gas, biomass, or biogas for process energy	6
P	Ethanol, renewable diesel, jet fuel, heating oil, and naphtha	The non-cellulosic portions of separated food waste	Any	5
Q	Biogas	Landfills, sewage waste treatment plants, manure digesters	Any	5
R	Ethanol	Grain Sorghum	Dry mill process using biogas from landfills, waste treatment plants, and/or waste digesters, and/or natural gas, for process energy	6
S	Ethanol	Grain Sorghum	Dry mill process, using only biogas from landfills, waste treatment plants, and/or waste digesters for process energy and for on-site production of all electricity	5

			used at the site other than up to 0.15 kWh of electricity from the grid per gallon of ethanol produced, calculated on a per batch basis	

TABLE 2 TO §80.1426—ADVANCED TECHNOLOGIES

Corn oil fractionation that is applied to at least 90% of the corn used to produce ethanol on a calendar year basis.
Corn oil extraction that is applied to the whole stillage and/or derivatives of whole stillage and results in recovery of corn oil at an annual average rate equal to or greater than 1.33 pounds oil per bushel of corn processed into ethanol.
Membrane separation in which at least 90% of ethanol dehydration is carried out using a hydrophilic membrane on a calendar year basis.
Raw starch hydrolysis that is used for at least 90% of starch hydrolysis used to produce ethanol instead of hydrolysis using a traditional high heat cooking process, calculated on a calendar year basis.
Combined heat and power such that, on a calendar year basis, at least 90% of the thermal energy associated with ethanol production (including thermal energy produced at the facility and that which is derived from an off-site waste heat supplier), exclusive of any thermal energy used for the drying of distillers grains and solubles, is used to produce electricity prior to being used to meet the process heat requirements of the facility.

(2) *Renewable fuel that can be described by a single pathway.*

(i) The number of gallon-RINs that shall be generated for a batch of renewable fuel by a producer or importer for renewable fuel that can be described by a single pathway shall be equal to a volume calculated according to the following formula:

$V_{RIN} = EV * V_s$

Where:

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

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

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

(ii) The D code that shall be used in the RINs generated shall be the D code specified in Table 1 to this section, or a D code as approved by the Administrator, which corresponds to the pathway that describes the producer's operations.

(3) *Renewable fuel that can be described by two or more pathways.*

(i) The D codes that shall be used in the RINs generated by a producer or importer whose renewable fuel can be described by two or more pathways shall be the D codes specified in Table 1 to this section, or D codes as approved by the Administrator, which correspond to the pathways that describe the renewable fuel throughout that calendar year.

(ii) If all the pathways describing the producer's operations have the same D code and each batch is of a single fuel type, then that D code shall be used in all the RINs generated and the number of gallon-RINs that shall be generated for a batch of renewable fuel shall be equal to a volume calculated according to the following formula:

$V_{RIN} = EV * V_s$

Where:

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

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

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

(iii) If all the pathways describing the producer's operations have the same D code but individual batches are comprised of a mixture of fuel types with different equivalence values, then that D code shall be used in all the RINs generated and the number of gallon-RINs that shall be generated for a batch of renewable fuel shall be equal to a volume calculated according to the following formula:

$$V_{RIN} = \Sigma(EV_i * V_{s,i})$$

Where:

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

EV_i = Equivalence value for fuel type i in the batch of renewable fuel per §80.1415.

$V_{s,i}$ = Standardized volume of fuel type i in the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

(iv) If the pathway applicable to a producer changes on a specific date, such that one pathway applies before the date and another pathway applies on and after the date, and each batch is of a single fuel type, then the applicable D code and batch identifier used in generating RINs must change on the date that the change in pathway occurs and the number of gallon-RINs that shall be generated for a batch of renewable fuel shall be equal to a volume calculated according to the following formula:

$$V_{RIN} = EV * V_s$$

Where:

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

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

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

(v) If a producer produces batches that are comprised of a mixture of fuel types with different equivalence values and different applicable D codes, then separate values for V_{RIN} shall be calculated for each category of renewable fuel according to formulas in Table 3 to this section. All batch-RINs thus generated shall be assigned to unique batch identifiers for each portion of the batch with a different D code.

TABLE 3 TO §80.1426—NUMBER OF GALLON-RINS TO ASSIGN TO BATCH-RINS WITH D CODES DEPENDENT ON FUEL TYPE

D code to use in batch-RIN	Number of gallon-RINs
D = 3	$V_{RIN, CB} = EV_{CB} * V_{s, CB}$
D = 4	$V_{RIN, BBD} = EV_{BBD} * V_{s, BBD}$
D = 5	$V_{RIN, AB} = EV_{AB} * V_{s, AB}$
D = 6	$V_{RIN, RF} = EV_{RF} * V_{s, RF}$
D = 7	$V_{RIN, CD} = EV_{CD} * V_{s, CD}$

Where:

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

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

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

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

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

EV_{CB} = Equivalence value for the cellulosic biofuel portion of the batch per §80.1415.

EV_{BBD} = Equivalence value for the biomass-based diesel portion of the batch per §80.1415.

EV_{AB} = Equivalence value for the advanced biofuel portion of the batch per §80.1415.

EV_{RF} = Equivalence value for the renewable fuel portion of the batch per §80.1415.

EV_{CD} = Equivalence value for the cellulosic diesel portion of the batch per §80.1415.

$V_{s,CB}$ = Standardized volume at 60 °F of the portion of the batch that must be assigned a D code of 3, in gallons, calculated in accordance with paragraph (f)(8) of this section.

$V_{s,BBD}$ = Standardized volume at 60 °F of the portion of the batch that must be assigned a D code of 4, in gallons, calculated in accordance with paragraph (f)(8) of this section.

$V_{s,AB}$ = Standardized volume at 60 °F of the portion of the batch that must be assigned a D code of 5, in gallons, calculated in accordance with paragraph (f)(8) of this section.

$V_{s,RF}$ = Standardized volume at 60 °F of the portion of the batch that must be assigned a D code of 6, in gallons, calculated in accordance with paragraph (f)(8) of this section.

$V_{s,CD}$ = Standardized volume at 60 °F of the portion of the batch that must be assigned a D code of 7, in gallons, calculated in accordance with paragraph (f)(8) of this section.

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

Table 4 to §80.1426

Number of gallon-RINs to assign to batch-RINs with D codes dependent on feedstock

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

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Where:

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

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

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

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

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

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

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

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

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

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

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

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

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

$$FE = M * (1 - m) * CF * E$$

Where:

FE = Feedstock energy, in Btu.

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

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

CF = Converted Fraction in annual average mass percent, representing that portion of the feedstock that is converted into renewable fuel by the producer.

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

(4) *Renewable fuel that is produced by co-processing renewable biomass and non-renewable feedstocks simultaneously to produce a fuel that is partially renewable.*

(i) The number of gallon-RINs that shall be generated for a batch of partially renewable fuel shall be equal to a volume V_{RIN} calculated according to Method A or Method B.

(A) *Method A.*

(*1*) V_{RIN} shall be calculated according to the following formula:

$$V_{RIN} = EV * V_s * FE_R/(FE_R + FE_{NR})$$

Where:

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

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

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

FE_R = Feedstock energy from renewable biomass used to make the transportation fuel, heating oil, or jet fuel, in Btu.

FE_{NR} = Feedstock energy from non-renewable feedstocks used to make the transportation fuel, heating oil, or jet fuel, in Btu.

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

$$FE = M * (1-m) * CF * E$$

Where:

FE = Feedstock energy, in Btu.

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

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

CF = Converted Fraction in annual average mass percent, representing that portion of the feedstock that is converted into transportation fuel, heating oil, or jet fuel by the producer.

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

(B) *Method B.* V_{RIN} shall be calculated according to the following formula:

$$V_{RIN} = EV * V_s * R$$

Where:

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

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

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

R = The renewable fraction of the fuel as measured by a carbon-14 dating test method as provided in paragraph (f)(9) of this section.

(ii) The D code that shall be used in the RINs generated to represent partially renewable transportation fuel, heating oil, or jet fuel shall be the D code specified in Table 1 to this section, or a D code as approved by the Administrator, which corresponds to the pathway that describes a producer's operations. In determining the appropriate pathway, the contribution of non-renewable feedstocks to the production of partially renewable fuel shall be ignored.

(5) *Renewable fuel produced from separated yard and food waste.*

(i) *Separated yard waste and food waste* means, for the purposes of this section, waste that is one of the following:

(A) *Separated yard waste*, which is a feedstock stream consisting of yard waste kept separate since generation from other waste materials. Separated yard waste is deemed to be composed entirely of cellulosic materials.

(B) *Separated food waste*, which is 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 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.

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

(ii) (A) A feedstock qualifies under paragraph (f)(5)(i)(A) or (f)(5)(i)(B) of this section only if it is collected according to a plan submitted to and accepted by U.S. EPA under the registration procedures specified in §80.1450(b)(1)(vii).

(B) A feedstock qualifies under paragraph (f)(5)(i)(C) of this section only if it is collected according to a plan submitted to and approved by U.S. EPA.

(iii) Separation and recycling actions specified in paragraph (f)(5)(i)(C) of this section are considered to occur if:

(A) Recyclable paper, cardboard, plastics, rubber, textiles, metals, and glass that can be recycled are separated and removed from the municipal solid waste stream to the extent reasonably practicable according to a plan submitted to and approved by U.S. EPA under the registration procedures specified in §80.1450(b)(1)(viii); and

(B) The fuel producer has evidence of all 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 as defined in paragraph (f)(5)(i)(A) of this section shall be equal to a volume V_{RIN} and is calculated according to the following formula:

$$V_{RIN} = EV * V_s$$

Where:

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

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

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

(B) The number of gallon-RINs that shall be generated for a batch of renewable fuel derived from separated food waste as defined in paragraph (f)(5)(i)(B) of this section shall be equal to a volume V_{RIN} and is calculated according to the following formula:

$$V_{RIN} = EV * V_s$$

Where:

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

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

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

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

$$V_{RIN} = EV * V_s * R$$

Where:

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

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

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

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

(vi) The D code that shall be used in the RINs generated to represent separated yard waste, food waste, and MSW shall be the D code specified in Table 1 to this section, or a D code as approved by the Administrator, which corresponds to the pathway that describes the producer's operations and feedstocks.

(6) *Renewable fuel neither covered by the pathways in Table 1 to this section, nor given an approval by the Administrator for use of a specific D code.*

If none of the pathways described in Table 1 to this section apply to a producer's operations, and the producer has not received approval for the use of a specific D code by the Administrator, the party may generate RINs if the fuel from its facility is made from renewable biomass and qualifies for an exemption under §80.1403 from the requirement that renewable fuel achieve at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions.

(i) The number of gallon-RINs that shall be generated for a batch of renewable fuel that qualifies for an exemption from the 20 percent GHG reduction requirements under §80.1403 shall be equal to a volume calculated according to the following formula:

$$V_{RIN} = EV * V_s$$

Where:

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

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

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

(ii) A D code of 6 shall be used in the RINs generated under this paragraph (f)(6).

(7) *Determination of feedstock energy content factors.*

(i) For purposes of paragraphs (f)(3)(vi) and (f)(4)(i)(A)(2) of this section, producers must specify the value for E, the energy content of the components of the feedstock that are converted to renewable fuel, used in the calculation of the feedstock energy value FE.

(ii) The value for E shall represent the higher or gross calorific heating value for a feedstock on a zero moisture basis.

(iii) Producers must specify the value for E for each type of feedstock at least once per calendar year.

(iv) A producer must use default values for E as provided in paragraph (f)(7)(vi) of this section, or must determine alternative values for its own feedstocks according to paragraph (f)(7)(v) of this section.

(v) Producers that do not use a default value for E must use the following test methods, or alternative test methods as approved by EPA, to determine the value of E. The value of E shall be based upon the test results of a sample of feedstock that, based upon good engineering judgment, is representative of the feedstocks used to produce renewable fuel:

(A) ASTM E 870 or ASTM E 711 for gross calorific value (both incorporated by reference, see §80.1468).

(B) ASTM D 4442 or ASTM D 4444 for moisture content (both incorporated by reference, see §80.1468).

(vi) *Default values for E.*

(A) Starch: 7,600 Btu/lb.

(B) Sugar: 7,300 Btu/lb.

(C) Vegetable oil: 17,000 Btu/lb.

(D) Waste cooking oil or trap grease: 16,600 Btu/lb.

(E) Tallow or fat: 16,200 Btu/lb.

(F) Manure: 6,900 Btu/lb.

(G) Woody biomass: 8,400 Btu/lb.

(H) Herbaceous biomass: 7,300 Btu/lb.

(I) Yard wastes: 2,900 Btu/lb.

(J) Biogas: 11,000 Btu/lb.

(K) Food waste: 2,000 Btu/lb.

(L) Paper: 7,200 Btu/lb.

(M) Crude oil: 19,100 Btu/lb.

(N) Coal—bituminous: 12,200 Btu/lb.

(O) Coal—anthracite: 13,300 Btu/lb.

(P) Coal—lignite or sub-bituminous: 7,900 Btu/lb.

(Q) Natural gas: 19,700 Btu/lb.

(R) Tires or rubber: 16,000 Btu/lb.

(S) Plastic: 19,000 Btu/lb.

(8) *Standardization of volumes.* In determining the standardized volume of a batch of renewable fuel for purposes of generating RINs under this paragraph (f), the batch volumes shall be adjusted to a standard temperature of 60 °F.

(i) For ethanol, the following formula shall be used:

$V_{s,e} = V_{a,e} * (-0.0006301 * T + 1.0378)$

Where:

$V_{s,e}$ = Standardized volume of ethanol at 60 °F, in gallons.

$V_{a,e}$ = Actual volume of ethanol, in gallons.

T = Actual temperature of the batch, in °F.

(ii) For biodiesel (mono-alkyl esters), one of the following two methods for biodiesel temperature standardization to 60 °Fahrenheit (°F) shall be used

(A) $V_{s,b} = V_{a,b} * (-0.00045767 * T + 1.02746025$

Where

$V_{s,b}$ = Standardized volume of biodiesel at 60 °F, in gallons.

$V_{a,b}$ = Actual volume of biodiesel, in gallons.

T = Actual temperature of the batch, in °F.

(B) The standardized volume of biodiesel at 60 °F, in gallons, as calculated from the use of the American Petroleum Institute Refined Products Table 6B, as referenced in ASTM D 1250 (incorporated by reference, see §80.1468).

(iii) For other renewable fuels, an appropriate formula commonly accepted by the industry shall be used to standardize the actual volume to 60 °F. Formulas used must be reported to EPA, and may be determined to be inappropriate.

(9) *Use of radiocarbon dating test methods.*

(i) Parties may use a radiocarbon dating test method for determination of the renewable fraction of a fuel R used to determine V_{RIN} as provided in paragraphs (f)(4) and (f)(5) of this section.

(ii) Parties must use Method B or Method C of ASTM D 6866 (incorporated by reference, *see* §80.1468), or an alternative test method as approved by EPA.

(iii) For each batch of fuel, the value of R must be based on:

(A) A radiocarbon dating test of the batch of fuel produced; or

(B) A radiocarbon dating test of a composite sample of previously produced fuel, if all of the following conditions are met:

(*1*) Based upon good engineering judgment, the renewable fraction of the composite sample must be representative of the batch of fuel produced.

(*2*) The composite sample is comprised of a volume weighted combination of samples from every batch of partially renewable transportation fuel produced by the party over a period not to exceed one calendar month, or more frequently if necessary to ensure that the test results are representative of the renewable fraction of the partially renewable fuel.

(*3*) The composite sample must be well mixed prior to testing.

(4) A volume of each composite sample must be retained for a minimum of two years, and be of sufficient volume to permit two additional tests to be conducted.

(iv) If the party is using the composite sampling approach according to paragraph (f)(9)(iii)(B) of this section, the party may estimate the value of R for use in generating RINs in the first month if all of the following conditions are met:

(A) The estimate of R for the first month is based on information on the composition of the feedstock;

(B) The party calculates R in the second month based on the application of a radiocarbon dating test on a composite sample pursuant to (f)(9)(iii)(B) of this section; and

(C) The party adjusts the value of R used to generate RINs in the second month using the following formula

$$R_{i+1,adj} = 2 \times R_{i+1,calc} - R_{i,est}$$

Where

$R_{i+1,adj}$ = Adjusted value of R for use in generating RINs in month the second month i+1.

$R_{i+1,calc}$ = Calculated value of R in second month i+1 by applying a radiocarbon dating test method to a composite sample of fuel.

$R_{i,est}$ = Estimate of R for the first month i.

(10)(i) For purposes of this section, renewable electricity or biogas that is not introduced into a distribution system with fuels derived from non-renewable feedstocks is considered renewable fuel and the producer may generate RINs if all of the following apply:

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

(B) The fuel producer has entered into a written contract for the sale and use of a specific quantity of renewable electricity or biogas as transportation fuel; and

(C) The renewable electricity or biogas is used as a transportation fuel.

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

(11)(i) For purposes of this section, renewable electricity or biogas that is introduced into a commercial distribution system may be considered renewable fuel and the producer may generate RINs if:

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

(B) The fuel producer has entered into a written contract for the sale of a specific quantity of fuel derived from renewable biomass sources with a party that uses fuel taken from a commercial distribution system for transportation purposes, and such fuel has been introduced into that commercial distribution system (e.g., pipeline, transmission line); and

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

(ii) For biogas that is introduced into a commercial distribution system, the producer may generate RINs only for the volume of biogas that has been gathered, processed, and injected into a common carrier pipeline if:

(A) The gas that is ultimately withdrawn from that pipeline for transportation purposes is withdrawn in a manner and at a time consistent with the transport of fuel between the injection and withdrawal points; and

(B) The volume and heat content of biogas injected into the pipeline and the volume of gas used as transportation fuel are measured by continuous metering.

(iii) The fuel used for transportation purposes is considered produced from renewable biomass only to the extent that:

(A) The amount of fuel sold for use as transportation fuel matches the amount of fuel derived from renewable biomass that the producer contracted to have placed into the commercial distribution system; and

(B) No other party relied upon the contracted volume of biogas for the creation of RINs.

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

(12) For purposes of Table 1 to this section, process heat produced from combustion of gas at a renewable fuel facility is considered derived from biomass if the gas is biogas.

(i) For biogas directly transported to the facility without being placed in a commercial distribution system, all of the following conditions must be met:

(A) The producer has entered into a written contract for the procurement of a specific volume of biogas with a specific heat content.

(B) The volume of biogas was sold to the renewable fuel production facility, and to no other facility.

(C) The volume and heat content of biogas injected into the pipeline and the volume of gas used as process heat are measured by continuous metering.

(ii) For biogas that has been gathered, processed and injected into a common carrier pipeline, all of the following conditions must be met:

(A) The producer has entered into a written contract for the procurement of a specific volume of biogas with a specific heat content.

(B) The volume of biogas was sold to the renewable fuel production facility, and to no other facility.

(C) The volume of biogas that is withdrawn from the pipeline is withdrawn in a manner and at a time consistent with the transport of fuel between the injection and withdrawal points.

(D) The volume and heat content of biogas injected into the pipeline and the volume of gas used as process heat are measured by continuous metering.

(E) The common carrier pipeline into which the biogas is placed ultimately serves the producer's renewable fuel facility.

(iii) The process heat produced from combustion of gas at a renewable fuel facility described in paragraph (f)(12)(i) of this section shall not be considered derived from biomass if any other party relied upon the contracted volume of biogas for the creation of RINs.

(13) In order for facilities to satisfy the requirements of the advanced biofuel grain sorghum pathway all of the following conditions (in addition to other applicable requirements) apply.

(i) The quantity of electricity used at the site that is purchased from the grid must be measured and recorded by continuous metering.

(ii) All electricity used on-site that is not purchased from the grid must be produced on-site from biogas from landfills, waste treatment plants, and/or waste digesters.

(iii) For biogas directly transported to the facility without being placed in a commercial distribution system, all of the following conditions must be met:

(A) The producer has entered into a written contract for the procurement of biogas that specifies the volume of biogas, its heat content, and that the biogas must be derived from a landfill, waste treatment plant and/or waste digester.

(B) The volume of biogas was sold to the renewable fuel production facility, and to no other facility.

(C) The volume and heat content of biogas injected into the pipeline and the volume of gas used at the renewable fuel production facility are measured by continuous metering.

(iv) [Reserved]

(v) For biogas that has been gathered, processed and injected into a common carrier pipeline, all of the following conditions must be met:

(A) The producer has entered into a written contract for the procurement of biogas that specifies a specific volume of biogas, with a specific heat content, and that the biogas must be derived from a landfill, waste treatment plant and/or waste digester.

(B) The volume of biogas was sold to the renewable fuel production facility, and to no other facility.

(C) The volume of biogas that is withdrawn from the pipeline is withdrawn in a manner and at a time consistent with the transport of fuel between the injection and withdrawal points.

(D) The volume and heat content of biogas injected into the pipeline and the volume of gas used at the renewable fuel production facility are measured by continuous metering.

(E) The common carrier pipeline into which the biogas is placed ultimately serves the producer's renewable fuel facility.

(vi) No party relied upon the contracted volume of biogas for the creation of RINs.

(14) A producer or importer of renewable fuel using giant reed (*Arundo donax*) or napier grass (*Pennisetum purpureum*) as a feedstock may generate RINs for that renewable fuel if:

(i) The feedstock is produced, managed, transported, collected, monitored, and processed according to a Risk Mitigation Plan approved by EPA under the registration procedures specified in §80.1450(b)(1)(x)(A); or,

(ii) EPA has determined that there is not a significant likelihood of spread beyond the planting area of the feedstock used for production of the renewable fuel. Any determination that *Arundo donax* or *Pennisetum purpureum* does not present a significant likelihood of spread beyond the planting area must be based upon clear and compelling evidence, including information and supporting data submitted by the producer. Such a determination must be made by EPA as specified in §80.1450(b)(1)(x)(B).

(g) *Delayed RIN generation*—(1) Parties who produce or import renewable fuel may elect to generate delayed RINs to represent renewable fuel volumes that have already been transferred to another party if those renewable fuel volumes meet all of the following requirements.

(i) The renewable fuel volumes can be described by a new pathway that has been added to Table 1 to §80.1426, or approved by petition pursuant to §80.1416, after July 1, 2010.

(A) For new pathways that EPA approves in response to petitions submitted pursuant to §80.1416, complete petitions must be received by EPA by January 31, 2011.

(B) [Reserved]

(ii) The renewable fuel volumes can be described by a pathway that:

(A) Is biodiesel that is made from canola oil through transesterification using natural gas or biomass for process energy; or

(B) EPA has determined was in use as of July 1, 2010, for the primary purpose of producing transportation fuel, heating oil, or jet fuel for commercial sale.

(iii) The renewable fuel volumes were not designated or intended for export from the 48 contiguous states plus Hawaii by the renewable fuel producer or importer, and the producer or importer of the renewable fuel volumes does not know or have reason to know that the volumes were exported from the 48 contiguous states plus Hawaii.

(2) When a new pathway is added to Table 1 to §80.1426 or approved by petition pursuant to §80.1416, EPA will specify in its approval action the effective date on which the new pathway becomes valid for the generation of RINs and whether the fuel in question meets the requirements of paragraph (g)(1)(ii) of this section.

(i) The effective date for the pathway describing biodiesel that is made from canola oil through transesterification using natural gas or biomass for process energy is September 28, 2010.

(ii) [Reserved]

(3) Delayed RINs can only be generated to represent renewable fuel volumes produced in the 48 contiguous states plus Hawaii or imported into the 48 contiguous states plus Hawaii between July 1, 2010, and the earlier of either of the following dates:

(i) The effective date (identified pursuant to paragraph (g)(2) of this section) of the new pathway through which the fuel in question was produced; or

(ii) December 31, 2011.

(4) Delayed RINs must be generated no later than 60 days after the effective date (identified pursuant to paragraph (g)(2) of this section) of the pathway by which the fuel in question was produced.

(5) A party authorized pursuant to paragraph (g)(1) of this section to generate delayed RINs, and electing to do so, who generated RINs pursuant to 80.1426(f)(6) for fuel produced through a pathway described in paragraph (g)(1) of this section, and transferred those RINs with renewable fuel volumes between July 1, 2010 and the effective date (identified pursuant to paragraph (g)(2) of this section) of that pathway, must retire a number of gallon-RINs prior to generating delayed RINs.

(i) The number of gallon-RINs retired by a party pursuant to this paragraph must not exceed the number of gallon-RINs originally generated by the party to represent fuel described in paragraph (g)(1) of this section that was produced in the 48 contiguous states plus Hawaii or imported into the 48 contiguous states plus Hawaii, and transferred to another party, between July 1, 2010 and the earlier of either of the following dates:

(A) The effective date (identified pursuant to paragraph (g)(2) of this section) of the new pathway through which the fuel in question was produced; or

(B) December 31, 2011.

(ii) Retired RINs must have a D code of 6.

(iii) Retired RINs must have a K code of 2.

(iv) Retired RINs must have been generated in the same year as the gallon-RINs originally generated by the party to represent fuel described in paragraph (g)(1) of this section.

(A) For gallon-RINs originally generated in 2010 to represent fuel described in paragraph (g)(1) of this section, the generation year of retired RINs shall be 2010.

(B) For gallon-RINs originally generated in 2011 to represent fuel described in paragraph (g)(1) of this section, the generation year of retired RINs shall be 2011.

(6) For parties that retire RINs pursuant to paragraph (g)(5) of this section, the number of delayed gallon-RINs generated shall be equal to the number of gallon-RINs retired in accordance with paragraph (g)(5) of this section.

(7) A party authorized pursuant to paragraph (g)(1) of this section to generate delayed RINs, and electing to do so, who did not generate RINs pursuant to §80.1426(f)(6) for renewable fuel produced in the 48 contiguous states plus Hawaii or imported into the 48 contiguous states plus Hawaii between July 1, 2010 and the effective date (identified pursuant to paragraph (g)(2) of this section) of a new pathway for the fuel in question, may generate a number of delayed gallon-RINs for that renewable fuel in accordance with paragraph (f) of this section.

(i) The standardized volume of fuel (V_s) used by a party to determine the RIN volume (V_{RIN}) under paragraph (f) of this section shall be the standardized volume of the fuel described in paragraph (g)(1)(i) of this section that was produced in the 48 contiguous states plus Hawaii or imported into the 48 contiguous states plus Hawaii by the party, and transferred to another party, between July 1, 2010 and the earlier of either of the following dates:

(A) The effective date (identified pursuant to paragraph (g)(2) of this section) of the new pathway through which the fuel in question was produced; or

(B) December 31, 2011.

(ii) [Reserved]

(8) The renewable fuel for which delayed RINs are generated must be described by a pathway that satisfies the requirements of paragraph (g)(1) of this section.

(9) All delayed RINs generated by a renewable fuel producer or importer must be generated within EMTS on the same date.

(10) The generation year of delayed RINs as designated in EMTS shall be the year that the renewable fuel volumes they represent were either produced or imported into the 48 contiguous states plus Hawaii.

(i) For renewable fuel volumes produced or imported in 2010, the generation year of delayed RINs shall be 2010 and the production date specified in EMTS shall be 07/01/2010.

(ii) For renewable fuel volumes produced or imported in 2011, the generation year of delayed RINs shall be 2011 and the production date specified in EMTS shall be 01/01/2011.

(11) Delayed RINs shall be generated as assigned RINs in EMTS with a batch number that begins with “DRN”, and then immediately separated by the RIN generator.

(12) The D code that shall be used in delayed RINs shall be the D code which corresponds to the new pathway.

(13) Except as provided in this paragraph (g), all other provisions in this Subpart M that pertain to the identification of fuels for which RINs may be generated, the generation and use of RINs, and recordkeeping and reporting, are also applicable to delayed RINs.

[75 FR 14863, Mar. 26, 2010, as amended at 75 FR 26038, May 10, 2010; 75 FR 37733, June 30, 2010; 75 FR 59632, Sept. 28, 2010; 75 FR 76828, Dec. 9, 2010; 75 FR 79977, Dec. 21, 2010; 77 FR 1355, Jan. 9, 2012; 77 FR 61294, Oct. 9, 2012; 77 FR 74605, Dec. 17, 2012; 78 FR 14216, Mar. 5, 2013; 78 FR 41714, July 11, 2013; 78 FR 62470, Oct. 22, 2013]

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ELECTRONIC CODE OF FEDERAL REGULATIONS

e-CFR Data is current as of February 6, 2014

Title 40: Protection of Environment
PART 80—REGULATION OF FUELS AND FUEL ADDITIVES
Subpart M—Renewable Fuel Standard

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§80.1428 General requirements for RIN distribution.

(a) *RINs assigned to volumes of renewable fuel.*

(1) *Assigned RIN,* for the purposes of this subpart, means a RIN assigned to a volume of renewable fuel pursuant to §80.1426(e) with a K code of 1.

(2) Except as provided in §80.1429, no person can separate a RIN that has been assigned to a batch pursuant to §80.1426(e).

(3) An assigned RIN cannot be transferred to another person without simultaneously transferring a volume of renewable fuel to that same person.

(4) No more than 2.5 assigned gallon-RINs with a K code of 1 can be transferred to another person with every gallon of renewable fuel transferred to that same person.

(5)(i) On each of the dates listed in paragraph (a)(5)(ii) of this section in any calendar year, the following equation must be satisfied for assigned RINs and volumes of renewable fuel owned by a person:

$\Sigma(RIN)_D \leq \Sigma(V_{si} * 2.5)_D$

Where:

D = Applicable date.

$\Sigma(RIN)_D$ = Sum of all assigned gallon-RINs with a K code of 1 that are owned on date D.

$(V_{si})_D$ = Volume i of renewable fuel owned on date D, standardized to 60 °F, in gallons.

(ii) The applicable dates are March 31, June 30, September 30, and December 31.

(6) Any transfer of ownership of assigned RINs must be documented on product transfer documents generated pursuant to §80.1453.

(i) The RIN must be recorded on the product transfer document used to transfer ownership of the volume of renewable fuel to another person; or

(ii) The RIN must be recorded on a separate product transfer document transferred to the same person on the same day as the product transfer document used to transfer ownership of the volume of renewable fuel.

(b) *RINs separated from volumes of renewable fuel.*

(1) *Separated RIN,* for the purposes of this subpart, means a RIN with a K code of 2 that has been separated from a volume of renewable fuel pursuant to §80.1429.

(2) Any person that has registered pursuant to §80.1450 can own a separated RIN.

(3) Separated RINs can be transferred any number of times.

(c) *RIN expiration.* Except as provided in §80.1427(a)(7), a RIN is valid for compliance during the calendar year in which it was generated, or the following calendar year. Any RIN that is not used for compliance purposes for the calendar year in which it was generated, or for the following calendar year, will be considered an expired RIN. Pursuant to §80.1431(a), an expired RIN will be considered an invalid RIN and cannot be used for compliance purposes.

(d) Any batch-RIN can be divided into multiple batch-RINs, each representing a smaller number of gallon-RINs, if all of the following conditions are met:

(1) All RIN components other than SSSSSSSS and EEEEEEEE are identical for the original parent and newly formed daughter RINs.

(2) The sum of the gallon-RINs associated with the multiple daughter batch-RINs is equal to the gallon-RINs associated with the parent batch-RIN.

[75 FR 14863, Mar. 26, 2010, as amended at 75 FR 26042, May 10, 2010]

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Title 40: Protection of Environment
PART 80—REGULATION OF FUELS AND FUEL ADDITIVES
Subpart M—Renewable Fuel Standard

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§80.1429 Requirements for separating RINs from volumes of renewable fuel.

(a)(1) Separation of a RIN from a volume of renewable fuel means termination of the assignment of the RIN to a volume of renewable fuel.

(2) RINs that have been separated from volumes of renewable fuel become separated RINs subject to the provisions of §80.1428(b).

(b) A RIN that is assigned to a volume of renewable fuel can be separated from that volume only under one of the following conditions:

(1) Except as provided in paragraphs (b)(7) and (b)(9) of this section, a party that is an obligated party according to §80.1406 must separate any RINs that have been assigned to a volume of renewable fuel if that party owns that volume.

(2) Except as provided in paragraph (b)(6) of this section, any party that owns a volume of renewable fuel must separate any RINs that have been assigned to that volume once the volume is blended with gasoline or fossil-based diesel to produce a transportation fuel, heating oil, or jet fuel. A party may separate up to 2.5 RINs per gallon of blended renewable fuel.

(3) Any party that exports a volume of renewable fuel must separate any RINs that have been assigned to the exported volume. A party may separate up to 2.5 RINs per gallon of exported renewable fuel.

(4) Any party that produces, imports, owns, sells, or uses a volume of neat renewable fuel, or a blend of renewable fuel and diesel fuel, must separate any RINs that have been assigned to that volume of neat renewable fuel or that blend if:

(i) The party designates the neat renewable fuel or blend as transportation fuel, heating oil, or jet fuel; and

(ii) The neat renewable fuel or blend is used without further blending, in the designated form, as transportation fuel, heating oil, or jet fuel.

(5) Any party that produces, imports, owns, sells, or uses a volume of electricity or biogas for which RINs have been generated in accordance with §80.1426(f) must separate any RINs that have been assigned to that volume of renewable electricity or biogas if:

(i) The party designates the electricity or biogas as transportation fuel; and

(ii) The electricity or biogas is used as transportation fuel.

(6) RINs assigned to a volume of biodiesel (mono-alkyl ester) can only be separated from that volume pursuant to paragraph (b)(2) of this section if such biodiesel is blended into diesel fuel at a concentration of 80 volume percent biodiesel (mono-alkyl ester) or less.

(i) This paragraph (b)(6) shall not apply to biodiesel owned by obligated parties or to exported volumes of biodiesel.

(ii) This paragraph (b)(6) shall not apply to parties meeting the requirements of paragraph (b)(4) of this section.

(7) For RINs that an obligated party generates for renewable fuel that has not been blended into gasoline or diesel to produce a transportation fuel, heating oil, or jet fuel, the obligated party can only separate such RINs from volumes of renewable fuel if the number of gallon-RINs separated in a calendar year are less than or equal to a limit set as follows:

(i) For RINs with a D code of 3, the limit shall be equal to RVO_{CB}.

(ii) For RINs with a D code of 4, the limit shall be equal to RVO_{BBD}.

(iii) For RINs with a D code of 7, the limit shall be equal to the larger of RVO_{BBD} or RVO_{CB}.

(iv) For RINs with a D code of 5, the limit shall be equal to $RVO_{AB}-RVO_{CB}-RVO_{BBD}$.

(v) For RINs with a D code of 6, the limit shall be equal to $RVO_{RF}-RVO_{AB}$.

(8) Small refiners and small refineries may only separate RINs that have been assigned to volumes of renewable fuel that the party blends into gasoline or diesel to produce transportation fuel, heating oil, or jet fuel, or that the party used as transportation fuel, heating oil, or jet fuel. This paragraph (b)(8) shall apply only under the following conditions:

(i) During the calendar year in which the party has received a small refinery exemption under §80.1441 or a small refiner exemption under §80.1442; and

(ii) The party is not otherwise an obligated party during the period of time that the small refinery or small refiner exemption is in effect.

(9) Except as provided in paragraphs (b)(2) through (b)(5) and (b)(8) of this section, parties whose non-export renewable volume obligations are solely related to either the importation of products listed in §80.1407(c) or §80.1407(e) or to the addition of blendstocks into a volume of finished gasoline, finished diesel fuel, RBOB, or CBOB, 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:

(i) For RINs with a D code of 3, the limit shall be equal to RVO_{CB}.

(ii) For RINs with a D code of 4, the limit shall be equal to RVO_{BBD}.

(iii) For RINs with a D code of 7, the limit shall be equal to the larger of RVO_{BBD} or RVO_{CB}.

(iv) For RINs with a D code of 5, the limit shall be equal to $RVO_{AB}-RVO_{CB}-RVO_{BBD}$.

(v) For RINs with a D code of 6, the limit shall be equal to $RVO_{RF}-RVO_{AB}$.

(c) The party responsible for separating a RIN from a volume of renewable fuel shall change the K code in the RIN from a value of 1 to a value of 2 prior to transferring the RIN to any other party.

(d) Upon and after separation of a RIN from its associated volume of renewable fuel, the separated RIN must be accompanied by a PTD pursuant to §80.1453 when transferred to another party.

(e) Upon and after separation of a RIN from its associated volume of renewable fuel, product transfer documents used to transfer ownership of the volume must meet the requirements of §80.1453.

(f) Any party that uses a renewable fuel in any application that is not transportation fuel, heating oil, or jet fuel, or designates a renewable fuel for use as something other than transportation fuel, heating oil, or jet fuel, must retire any RINs received with that renewable fuel and report the retired RINs in the applicable reports under §80.1451.

(g) Any 2009 or 2010 RINs retired pursuant to §80.1129 because renewable fuel was used in a nonroad vehicle or nonroad engine (except for ocean-going vessels), or as heating oil or jet fuel may be reinstated by the retiring party for sale or use to demonstrate compliance with a 2010 RVO.

[75 FR 14863, Mar. 26, 2010, as amended at 75 FR 26042, May 10, 2010; 77 FR 1355, Jan. 9, 2012]

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CERTIFICATE OF SERVICE

I filed the foregoing brief with the Court through the CM/ECF system on February 11, 2014. All parties are represented by registered CM/ECF users and will be served by the CM/ECF system.

/s/ Sandra P. Franco

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UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Hermes Consolidated, LLC dba Wyoming Refining Company,

Petitioner,

v.

Environmental Protection Agency

Respondent.

11-1016

Case No: 14-_____

PETITION FOR REVIEW

Pursuant to section 307(b)(1) of the Clean Air Act, 42 U.S.C. § 7607(b)(1); Rule 15(a) of the Federal Rules of Appellate Procedure; and Rule 15 of the D.C. Circuit Rules, Hermes Consolidated, LLC dba Wyoming Refining Company ("Wyoming Refining Company") hereby petitions the United States Court of Appeals for the District of Columbia Circuit for review of the following final agency action issued by the Environmental Protection Agency:

(1) *Denial of Request for Extension of Small Refinery Temporary Exemption Under the Renewable Fuel Standards Program for Wyoming Refining Co.'s Newcastle, WY Refinery* (January 31, 2014)

The Corporate Disclosure Statement required by FRAP 26.1 and D.C. Circuit Rule 26.1 is attached as Appendix B. The Certificate of Service and the list of parties served with this petition are attached as Appendix C.

Respectfully Submitted,

February 3, 2014

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APPENDIX A

Final Agency Action for Review

(1) *Denial of Request for Extension of Small Refinery Temporary Exemption Under the Renewable Fuel Standards Program for Wyoming Refining Co.'s Newcastle, WY Refinery* (January 31, 2014)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 31 2014

OFFICE OF
AIR AND RADIATION

Mr. Warren Neufeld
Vice President, Environment and Government Relations
Wyoming Refining Company
1600 Broadway, Suite 2300
Denver, Colorado 80202-4923

Dear Mr. Neufeld:

I am writing in response to the petition from Wyoming Refining Company (WRC) for a two-year extension of their small refinery exemption from the requirements of the renewable fuel standard program. As you know, the Clean Air Act provides that small refineries are temporarily exempt from the renewable fuel standard requirements through December 31, 2010. WRC's refinery at Newcastle, Wyoming, qualifies as a small refinery that was covered by this temporary exemption. This temporary exemption was extended to December 31, 2012, pursuant to an U.S. Environmental Protection Agency letter dated May 11, 2011, that was based on the results of the Department of Energy's (DOE) April 22, 2011, small refinery study. Pursuant to Clean Air Act Section 211(o)(9)(B) and 40 CFR 80.1441(e)(2), a refiner may petition the EPA to extend a temporary renewable fuel standard (RFS) exemption on the basis that compliance with the RFS requirements will cause a small refinery disproportionate economic hardship. WRC petitioned for a further two-year extension of its small refinery exemption pursuant to these provisions.

Based on our analysis of WRC's petition, supplemental information provided by WRC, and in consultation with DOE, we have concluded that it would not be appropriate to find that circumstances exist that impose disproportionate economic hardship on the refinery (see enclosure). Therefore, having considered all available information, the EPA has determined that it is not appropriate to grant WRC a further extension of its RFS small refinery temporary exemption. This means that as of January 1, 2013, WRC's gasoline and diesel production is subject to the percentage standards of 40 CFR 80.1405, and WRC is subject to all other requirements applicable to obligated parties. In addition, should WRC produce renewable fuel and/or generate or acquire Renewable Identification Numbers (RINs), it will remain subject to RFS regulatory requirements that apply to such actions.

If you have any questions, please contact Chris McKenna of my staff at (202) 343-9037.

Sincerely,

Christopher Grundler, Director
Office of Transportation and Air Quality

Enclosure

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APPENDIX B

Corporate Disclosure Statement of Wyoming Refining Company

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Hermes Consolidated, LLC dba Wyoming Refining Company, **Petitioner,** **v.** **Environmental Protection Agency** **Respondent.**	**Case No: 14-_____**

CORPORATE DISCLOSURE STATEMENT OF HERMES CONSOLIDATED, LLC dba WYOMING REFINING COMPANY

Pursuant to Rule 26.1 of the Federal Rules of Appellate Procedure and Circuit Rule 26.1, Hermes Consolidated, LLC dba Wyoming Refining Company ("Wyoming Refining Company") hereby submits this Corporate Disclosure Statement.

Wyoming Refining Company operates a petroleum refinery in northeastern Wyoming.

Wyoming Refining Company is incorporated under the laws of Delaware, and its corporate headquarters are located at 1600 Broadway, Ste 2300, Denver, CO 80202-4991. Wyoming Refining Company is 100% owned by Black Elk

Refining, LLC, which is an independent oil and gas company headquartered in Houston, Texas. Black Elk Refining is owned by EOR Energy Services, LLC (6.9%), and Wyoming Investment Holdings, LLC (93.1%). None of these entities is publicly traded.

The Petitioner will file a revised corporate disclosure statement should it become aware of a change in corporate ownership interests that would affect the disclosures required by Rule 26.1.

Respectfully Submitted,

February 3, 2014

LeAnn M. Johnson, Esq.
(DC Cir. # 48640)
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Attorney for Wyoming Refining Company

APPENDIX C

Service List and Certificate of Service

SERVICE LIST

Attn: Lisa P. Jackson
Administrator
U.S. Environmental Protection Agency
Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue, N. W.
Mail Code: 1101A
Washington, DC 20460

Attn: Scott Fulton
General Counsel
U.S. Environmental Protection Agency
Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue, N. W.
Mail Code: 2310A
Washington, DC 20460

CERTIFICATE OF SERVICE

I hereby certify that I have on this day served by certified mail – return receipt requested, a copy of each of the foregoing documents upon each person who appears on the attached Service List.

Respectfully Submitted,

LeAnn M. Johnson, Esq.

February 3, 2014

Biotechnology Industry Organization

April 18, 2013

Air and Radiation Docket and Information Center
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Avenue, NW
Washington, DC 20460

via email at: a-and-r-docket@epa.gov

Docket ID No. EPA–HQ–OAR–2012–0621: RFS Renewable Identification Number (RIN) Quality Assurance Program

The Biotechnology Industry Organization ("BIO") appreciates the opportunity to comment on the U.S. Environmental Protection Agency's ("EPA") proposed rule to establish a RFS Renewable Identification Number ("RIN") Quality Assurance Plan ("QAP") ("proposed rule" or "proposed QAP").

BIO is the world's largest biotechnology organization, with more than 1,100 member companies worldwide. BIO represents leading technology companies in the production of conventional and advanced biofuels and other sustainable solutions to energy and climate change. BIO also represents the leaders in developing new crop technologies for food, feed, fiber, and fuel.

BIO Commends EPA for Its Commitment to Ensuring the Success of the RFS and All Producers

BIO commends EPA for its steadfast commitment to ensuring the federal Renewable Fuel Standard ("RFS") works as intended to promote the development and commercialization of a U.S. biofuels industry to help further this country's energy security and independence. BIO supports EPA's efforts to ensure the stability of the RIN market, which is important to the functionality and effectiveness of the RFS.

The RFS is the single most important federal policy driving investment and commercialization of conventional and advanced biofuels. Investment spurred by the RFS has led to the development of commercial-scale advanced and cellulosic biofuel facilities that are currently in the process of starting up production of qualifying renewable fuel. Additional projects are also already under construction or planning to start production in the next few years. Each represents several hundred million dollars of at-risk capital. EPA's consistent and carefully balanced implementation of the RFS has provided these advanced biofuel developers and investors with the confidence of knowing that if they can produce advanced and cellulosic biofuels, they will be able to access the market.[1] Stable, consistent, predictable implementation of the RFS has helped such companies commercialize new fuels that meet the nation's goals for energy security and a cleaner environment.

Advanced biofuel companies just achieving commercial production status must also invest time and money in meeting the regulatory requirements both for Registration of Fuels and Fuel Additives (Title 40 CFR §79) and for RFS2 Registered Renewable Fuel Producers (Title

[1] "The value proposition for cellulosic and advanced biofuels under the US federal renewable fuel standard." Ind. Biotech. J. 7(2), April 2011. doi:10.1089/ind.2011.7.111.

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40 CFR §80.1450). Prior to generating RINs, a renewable fuel producer must have an independent third-party engineering review and verification of its facility's capacity to produce fuel an co-products, its feedstocks and suppliers, its process heat source and suppliers, its waste separation plan (if needed), along with required permits. Regulatory delays and barriers in these registration processes are already a significant challenge for advanced biofuel companies trying to commercialize new technology. Federal policies, including the proposed QAP, should clear a path for companies making investments, building new biorefineries and bringing innovative technologies to the marketplace.

BIO was encouraged by EPA's recent approval of cellulosic biofuels from camelina and energy cane.[2] These approvals have helped to expand access to the RFS by nascent biofuel producers, as there are now five pathways for producing qualifying cellulosic biofuels and generating RINs in the RFS program. However, additional companies continue to await approval of their proposals to generate qualifying cellulosic and advanced biofuels. These regulatory pathway delays, for example, can stall private investment and the companies' progress in achieving commercial scale production. BIO stands ready to work with EPA to remove regulatory barriers to access of the RFS, including by expediting pathway approval in the near future and helping to ensure steps to increase liquidity in the RIN market comport with the capabilities and resources of *all* current and prospective biofuel producers.

The Final Rule Should Not Contain Duplicative Requirements for Biofuel Producers

BIO recommends that EPA modify the proposed QAP to ensure the final plan does not include duplicative engineering review and attest engagement requirements for biofuel producers. The proposed QAP audits duplicate to a large degree the engineering review and attest engagement requirements for CFR §79 and §80 under the Clean Air Act and RFS. EPA even notes this redundancy in the proposed rule.[3]

BIO recommends two changes to the proposed rule so that the final plan will not include unnecessary, duplicative and burdensome requirements on biofuel producers, especially less well capitalized smaller producers that should be encouraged to make RFS qualifying fuel.

First, in the final rule, EPA should fully develop its proposal "that a separate engineering review would no longer be required if a facility is covered by an Option A QAP" [proposed rule p.12170]. ***BIO recommends that both Option A and B QAP audits should replace the requirement for separate engineering reviews as well as for annual attest engagements, which are also duplicated by the proposed QAP audits.*** Elimination of duplicative regulatory requirements can reduce the overall costs of the program for renewable fuel producers and is consistent with Executive Order 13563.[4]

Second, ***BIO recommends that advanced and cellulosic biofuel producers just entering the market at commercial scale---and whose feedstocks, technology and operations will have just been highly scrutinized---should be considered fully verified under the QAP for the first three years of operation following their***

---

[2] Regulation of Fuels and Fuel Additives: Identification of Additional Qualifying Renewable Fuel Pathways Under the Renewable Fuel Standard Program (Mar. 5, 2013), 78 Fed. Reg. 43.
[3] Proposed Rule at 12169, "Note that the components proposed for monitoring, whether on an ongoing or periodic basis, are components that are already regulated under the RFS program."
[4] Executive Order 13563 of January 18, 2011, Improving Regulation and Regulatory Review. Fed. Reg. Vol. 76, No. 14, Friday, January 21, 2011.

registrations. CFR § 80.1441 provided a similar three-year exemption for small refineries, which was extended for specific small refineries for an additional two years. This exemption would help level the playing field between large well-capitalized and established producers and small undercapitalized and nascent producers. Moreover, it would ensure against imposing duplicative and burdensome requirements on small advanced and cellulosic producers like the ones they had to comply with during the extensive registration processes. Given the fact that these producers will have just gone through the registration processes, EPA, obligated parties and participants in the RIN market can be assured their RINs will be valid.

EPA Should Work to Eliminate Unnecessary and Burdensome Costs to Producers in the Final Rule

The proposed QAP would place unnecessary and burdensome costs on biofuel producers—especially small producers recently achieving commercial status—which would not outweigh the potential benefits of the program on the RIN market. BIO recommends several changes to the proposed QAP to help ensure the RFS policy continues to encourage *all* biofuel producers to generate RINs.

The cellulosic biofuel industry, in particular, has received intense scrutiny from EPA, the U.S. Energy Information Administration ("EIA"), other interested agencies, Congress, the press and obligated parties.[5] *The risk of fraudulent RIN generation under such scrutiny is significantly low that it does not warrant prohibitive costs for these producers to further ensure the validity of their RINs.* Further, such prohibitive costs would exacerbate the current market reality where some pilot and demonstration cellulosic facilities are already discouraged from registering to begin generating RINs while they are testing new feedstocks, because of the requirements of CFR §80. Several of these advanced biofuel producers are currently awaiting pathway approvals. Each of their changes to tested feedstocks could require new QAPs, further discouraging small facilities from generating RINs and reducing liquidity in the RIN market.

EPA underestimates the cost burden of the QAP on biofuel producers, particularly on small advanced and cellulosic producers and producers of feedstock agnostic biofuels. The Agency estimates the cost to the renewable fuel producer of implementing a QAP to be $8,370. However, EPA likely mistakenly assumes that costs would not vary significantly among the various D codes of RINs[6] and that costs to producers would not vary significantly among nascent and established producers, and producers of the four categories of biofuels to generate RINs under the RFS. In fact, the costs would vary considerably according to the D-Code of the renewable fuel produced. And given the smaller number of cellulosic and advanced biofuel producers and the lower current volumes, the costs of replacing invalidated RINs in those categories would be much higher.

EPA does note that the biggest cost differences will occur in feedstock verification. This cost will impact cellulosic and advanced feedstocks more than conventional feedstocks because there are higher requirements for lifecycle greenhouse gas emission analysis and in several cases a requirement for additional regulatory approval of a feedstock separation plan. In addition, many advanced and cellulosic biofuels are feedstock agnostic. Under the current

[5] See for instance, "AFPM Updates Public Statement on Request to Waive 2012 Cellulosic Biofuel Mandate," Jan. 11, 2013, http://www.afpm.org/news-release.aspx?id=3497.
[6] See proposed rule at 12203.

proposal, these producers would be required to secure a separate QAP for each feedstock used.

The markets for cellulosic and advanced feedstocks are in some cases still maturing, meaning there are smaller volumes being traded and less economy of scale. The wider variety of cellulosic and advanced feedstocks will likely further impose higher costs on these renewable fuel producers, particularly if "a separate QAP is required for each pathway," [p.12173] as EPA proposes, and auditors are required to make direct contact with all feedstock suppliers to the facilities, under §80.1472(a)(4). Because they are building first-of-a-kind biorefineries with local feedstocks and novel technologies, nearly every cellulosic biofuel company currently registered under CFR §80 or expected to register in the next three years could require a separate QAP, which will significantly increase costs to those producers compared to others.

There are several other factors that will likely increase the cost burden of the program on small advanced and cellulosic biofuel producers. For instance, the need for multiple QAP plans for cellulosic and advanced pathways coupled with the small number of potential facilities as customers (further reduced because participation in the QAP program is intended to be voluntary) is likely to force auditors to increase the costs of the plans for cellulosic and advanced pathways.

In addition, of the auditors who have submitted QAP plans for pre-approval, only one is offering verification for cellulosic pathways, and only under Option B. The lack of competition and choice among auditors and plans would also drive higher costs for renewable fuel producers. Since EPA indicates that RIN market participants may choose a different QAP option "for any given RIN transaction" [p.12165], the costs for participation by new and smaller producers could be significantly higher than for larger producers, while the benefits could be much more limited.

EPA also recognizes that "different third-party auditors would develop different audit procedures and business models" [p.12165]. This variation raises the possibility that some QAP auditors would be more trusted by obligated parties, thereby creating more value for the RINs they verify.

Given the significant costs involved and low risk of invalid RINs, ***BIO strongly urges EPA to eliminate the quarterly audit requirements under the proposed QAP options for newly registered renewable fuel producers.*** We believe leaving the requirements in the final rule would exacerbate the imbalance in the costs for participation in the QAP.

BIO also urges EPA to consider allowing QAP auditors to trade RINs because doing so could potentially reduce the costs of the QAP both for auditors and renewable fuel producers. By taking ownership of RINs for trading, the auditors would become statutorily responsible for the validity of the RINs. It should be well-noted by all RIN market participants that one of the parties recently convicted of selling $9 million in fraudulent RINs was assessed $42 million in civil liabilities by the courts.[7] BIO believes this statutory responsibility would outweigh EPA's concern that "a conflict of interest may exist if the independent third-party implementing a QAP for a renewable fuel production facility was the

[7] EPA news release, http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/499ba706189280208525 7b1a006f9522!OpenDocument

same party that conducted the facility's engineering review required under §80.1450(b)(2)" [p.12187].

Lastly, ***BIO urges EPA to consider that the costs of participation in the QAP are expected to be reflected in the price of the renewable fuel produced and eventually in the price of fuel for end consumers.*** Obligated parties have already complained that increased RIN prices will cost consumers $13 billion in increased fuel prices at the pump.[8]

EPA Should Ensure the QAP in the Final Rule is Truly Voluntary and Facilitates a Level Playing Field for Both Large and Small Biofuel Producers to Help Fulfill the RFS

BIO urges EPA to make changes to the proposed rule to ensure that it is truly a voluntary program in practice, as it is intended to be. Making the program truly voluntary will help level the playing field between large and small producers, and help ensure that all producers remain encouraged to participate in the RFS. In its current form, the proposed QAP likely will not be voluntary in practice, at least for small advanced and cellulosic producers, as they likely will be pressured by market realities to participate, even if they have confidence in the validity of their RINs or if they would not be able to capture additional value for their verified RINs to justify the cost of participation.

EPA shows significant concern for existing inequalities in RIN values, noting, "some RINs have been treated as having more value and less risk than others" [p.12160] and "[s]maller producers have been forced to offer their RINs at a significant discount relative to RINs from larger producers" [p.12163]. Yet, EPA also notes that under the proposed QAP, verified RINs will be more valuable than unverified RINs. *EPA therefore should be wary of creating a system that competing companies and industries can use to raise costs to an intolerable level and drive small renewable fuel producers from the market place.*

EPA recognizes that already, without the proposed QAP in place, "individual obligated parties are now conducting their own audits of renewable fuel production facilities" [p.12160]; including "indemnification clauses in the contracts with RIN suppliers" [p.12163]; and "opting instead to purchase RINs primarily from the largest biodiesel producers" [p.12163]. *EPA should therefore recognize that obligated parties have significant leverage within the RFS program to impose costs and conditions on renewable fuel producers as well as to selectively identify and trade RINs from certain producers within the EPA Moderated Transaction System (EMTS).*

In practice, EPA's proposed QAP likely would not be a truly voluntary program and could impose overly burdensome and unnecessary costs and regulatory complexity on renewable fuel producers. Obligated parties have sufficient leverage within the existing regulations to require renewable fuel producers to participate as a condition of trading volumes of renewable fuel in the RFS program. For instance, currently, EMTS

> "allows a RIN account holder to block RINs generated by specific companies and/or facilities. EMTS now also allows a RIN transferee to review details of RINs offered by

[8] Bradley Olson & Dan Murtaugh, "Ethanol Upending Refiners Pushes $13 Billion on U.S. Drivers," Bloomberg, March 18, 2013, http://www.bloomberg.com/news/2013-03-18/refiners-pay-price-as-traders-hoard-ethanol-credits-valero-says.html.

a transferor, such as the RIN generators' company and facility ID numbers, prior to accepting or rejecting the transaction. In this way, a RIN account holder can protect himself or herself from being transferred RINs generated by a company with whom the RIN account holder chooses not to do business, even if indirectly."[9]

Flexibility and transparency in RIN trading benefits all, but it should not facilitate the imposition of costs by one party on a competitor.

Renewable fuel producers and petroleum refiners are competitors. In partially granting the American Petroleum Institute's recent "Petition for Review of Final Agency Action," the United States Court of Appeals for the District of Columbia Circuit ("The Court") indicated that, "[a]part from their role as captive consumers, the refiners are in no position to ensure, or even contribute to, growth in the cellulosic biofuel industry."[10] Especially given this recent assertion by the Court, EPA's final QAP should not unintentionally give refiners added power to contribute to delays in the growth of the cellulosic biofuel industry by imposing unwarranted costs and regulatory complexity on them. ***We urge EPA to rigorously ensure that the rules of the QAP do not enable and facilitate potentially discriminatory and anti-competitive behavior by obligated parties against biofuel producers, particularly small biofuel producers.***

Especially given the current ability of the EMTS to enable due diligence against RIN fraud, the potential costs of the proposed QAP are disproportionate to its potential rewards for renewable fuel companies that have not yet actively participated in the RIN market. Cellulosic biofuel producers in particular may be unable to capture additional value for verified RINs because the RFS program provides obligated parties a compliance option for cellulosic renewable volume obligations (RVO) that does not exist for other RVOs. The cellulosic waiver credit was designed to establish an upper bound for the value of a cellulosic biofuel gallon and assigned RIN as well as to ensure liquidity in the RIN market.[11]

If EPA adopts its proposal for EMTS to track and display RIN verification status, the RINs of cellulosic biofuel producers should be granted equivalence with Option A RINs – regardless of the QAP option chosen. We recommend this action because there are no approved QAPs utilizing Option A for cellulosic RINS. Cellulosic producers should not be disadvantaged by having only one QAP option when other types of producers all have two. This is especially true if EPA chooses to distinguish between verified and non-verified RINs within EMTS.

This action will also mitigate the risk that obligated parties will be able to use EMTS to block competing renewable fuel producers from full participation in the RIN market.

It is misguided to "expect that most RINs purchased and used for compliance purposes will be QAP-verified even though the program is voluntary because most obligated parties in most situations will prefer not to take on the risk of using an unverified RIN" [p.12167]. Obligated parties should be expected to seek to comply with the RFS at the lowest cost to

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[9] Regulation of Fuels and Fuel Additives: Modifications to Renewable Fuel Standard Program (Tuesday, December 21, 2010), Federal Register Volume 75, Number 244, FR Doc No: 2010-31910.
[10] American Petroleum Institute v. EPA, Advanced Biofuels Association, et al., USCA No. 12-1139, Jan.25, 2013.
[11] See Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program; Final Rule, (March 26, 2010) Fed.Reg. Vol. 75, No. 58, II.I.3, p.14727.

themselves, their customers and end consumers. Obligated parties may not require a QAP as a condition for trading RINs from larger, well-established producers who, as EPA notes, "are better known, have been under production for a longer period of time, and/or have the resources to replace invalid RINs" [p.12163]. *Larger producers – already potentially able to produce lower cost fuel through economies of scale – may not feel the need to participate in a QAP and would thereby be able to provide fuel at a lower cost than small producers.*

There is no guarantee that obligated parties will favor verified RINs, since they generally view them as a burdensome compliance cost. Small producers forced to use a QAP option by obligated parties could see significantly higher costs with no corresponding enhancement in their participation in the RFS. There is no guarantee that, "[a]s a result, verified RINs would be more valuable than RINs from a facility that had not been verified through a third-party auditor" [p.12170].

Recommendations to Ensure QAP is Truly Voluntary and Provides a Level Playing Field Between Large & Small Producers

1. ***EPA should not use EMTS to designate verified and unverified RINs.*** As noted earlier, EMTS already gives RIN traders extraordinary flexibility to block trading of RINs from certain renewable fuel producers. If EPA adopts its proposal for EMTS to track and display RIN verification status, D3, D7 and certain D5 RINs from newly registered renewable fuel facilities should be granted equivalence with Option A RINs – regardless of the QAP option chosen or whether the company is participating in a QAP.

2. ***EPA should not require third parties to hold RINs for some period of time.*** One of EPA's stated goals is to increase liquidity in the RIN market. Two of the proposed RIN replacement mechanisms under Option A would reduce liquidity in the market by requiring third parties to hold RINs for some period of time. Companies have produced very few D3 and D7 RINs to date and the industry is only expected to ramp up first-of-a-kind facilities in the next few years. Companies have also produced relatively few D5 RINs for Biogas and Renewable Diesel, with inconsistent year-over-year production. Holding RINs from the market for these categories of fuel would severely reduce liquidity in the market.

3. ***EPA should not publicly distinguish between verified and un-verified RINs as a potential replacement for invalidly generated RINs, since EPA's goal is to ensure that renewable fuel is produced and used in the United States.*** EPA argues that "RINs verified under the two options could have different prices even though they have the same D code" [p.12179]. However, the only meaningful distinction for satisfying the goals of the RFS would be between valid and invalid RINs. EPA should seek to minimize the differences between verified and unverified RINs, particularly under a voluntary program, and again should not use EMTS to designate verified and unverified RINs.

Additional Recommendations for Improving the Proposed QAP

Above, BIO recommends that EPA give Option A value to all RINs from newly commercialized cellulosic producers since there is no QAP for cellulosic biofuel producers under Option A. Even if EPA decides against this treatment for cellulosic producers, ***BIO recommends that EPA revise the proposed rule to allow cellulosic producers to submit a QAP plan specific to their facilities..*** This QAP option for newly registered cellulosic fuel producers would help equalize liability for invalidated RINs, improve liquidity and confidence in the RIN market, and enhance the ability of small producers to participate in the RFS. The RFS rules at §80.1465(h) require foreign refiners to post a bond to be used to satisfy any judicial judgment that results from an action for violation of the subpart.

Similarly, under this self-verification option, cellulosic producers could be required to post a bond of sufficient size to satisfy the purchase price of cellulosic waiver credits, equal to 2 percent of annual production, to replace potentially invalidated RINs. Such a bond could mitigate the perceived risk that obligated parties currently associate with RINs from small or new producers.

Since, in all cases, the RIN generator is primarily responsible for replacing invalidly generated RINs, a financial assurance instrument similar to the bond requirement for foreign RIN generators at §80.1465(h) would be most appropriate for the auditor. At a minimum, this requirement would ensure that invalidly generated cellulosic gallons could be replaced by cellulosic waiver credits, which were also established to ensure liquidity in the RIN market for that RVO.

The higher costs of the plans and the statutorily limited value of cellulosic RINs are likely to continue to limit QAP plan applications for QAP plans for cellulosic and certain advanced pathways. The required expertise to conduct engineering and feedstock reviews as well as elements of attest engagements could also limit the pool of qualified applicants. Therefore, ***the qualifications for auditors should be the same as those offering third-party engineering reviews and attest engagement services. And, to the greatest extent possible, EPA should avoid duplication of the requirements for these third-party reviews.***

RIN Separation

BIO opposes new limits on separation of RINs by producers. The RFS program was clearly designed to permit some fuel retailers to utilize more than their obligated volume of renewable fuels and trade credits to those who use less. Renewable producers who sell neat fuel or higher renewable content blends directly to end users qualify to participate fully in the system. Renewable fuel producers who sell directly to end users are employing a business model similar to that of petroleum refiners. To block their participation in the RFS program and RIN market would unjustifiably block competition in the fuel market.

Conclusion

In implementing a Quality Assurance Plan or any other proposed changes to the RFS, EPA should seek to ensure and improve the ability of small producers to participate in the fuels program. One of the key contemporary problems that EPA seeks to address is the inability of small producers to sell RINs. EPA should therefore seek to equalize the value of the RINs of small and large producers, through appropriate measures to further enable RIN traders to conduct due diligence. The EMTS system currently enables RIN traders to enforce due diligence by blocking trades from specific companies; EPA should ensure the final rule does not enable RIN traders to engage in anti-competitive behavior.

Small producers, in particular, are being asked to incur costly and duplicative reviews of their facilities in exchange for verified status for RINs. There is no guarantee in the proposed QAP that verified RINs will provide a return on those costs. Yet, there is the potential that competitors can force these costs on small producers as a condition for RIN trading, thereby increasing costs to an intolerable level.

In the case of cellulosic producers, the return on value of RINs is limited by a pre-existing market liquidity instrument, the cellulosic waiver credit, and the fact there is only one

approved Option B QAP plan. Cellulosic producers in particular may be blocked from recouping the costs of participation in the program. Further, these producers are only now entering the RIN market and have been more intensely scrutinized by EPA and other participants in the RIN market. Appropriate regulatory relief from the QAP is justified for these producers through an exemption from the program. At the same time, if EPA implements measures that create tiered values for verified and unverified RINs and identify them in EMTS, EPA should exempt cellulosic and advanced producers by granting them verified status.

Alternatively, it would be appropriate to create an Option within the QAP for cellulosic and advanced producers to submit a QAP plan specific to their facilities. As part of this Option, producers could post a bond similar to that used by foreign refineries. This bond – in conjunction with existing measures that enable due diligence – would help to build confidence among RIN traders and enhance liquidity within the market for small producers.

Sincerely,

Brent Erickson
Executive Vice President
Biotechnology Industry Organization

ORAL ARGUMENT NOT YET SCHEDULED

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

SMALL RETAILERS COALITION, Petitioner, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al., Respondent.	No. 17-1197

EPA'S MOTION TO DISMISS

Pursuant to Rule 27 of the Federal Rules of Appellate Procedure and Circuit Rule 27, Respondents United States Environmental Protection Agency and Scott Pruitt, Administrator, (jointly referred to as "EPA"), respectfully move this Court to dismiss this action. Petitioner Small Retailers Coalition ("Coalition") seeks review of EPA's compliance with the Regulatory Flexibility Act ("RFA"), 5 U.S.C. §§ 601-12, in promulgating a final rule under the Clean Air Act ("CAA"), 42 U.S.C. § 7545(o): "Renewable Fuel Standard Program: Standards for

2017 and Biomass-Based Diesel Volume for 2018," 81 Fed. Reg. 89,746 (Dec. 12, 2016) ("Final Rule"). Petition for Review (Aug. 29, 2017). Doc. No. 1690927. The Coalition cites the judicial review provision of the RFA, 5 U.S.C. § 611(a), as the jurisdictional basis for its petition.

The purpose of the RFA is to ensure that agencies consider the costs to small entities of complying with a new rule. *See Mid-Tex Elec. Co-op., Inc. v. F.E.R.C.*, 773 F.2d 327, 343, 349 (D.C. Cir. 1985). The Coalition — a trade association representing small, independent petroleum retailers and convenience stores[1] — alleges that EPA failed to either (1) prepare an initial and a final regulatory flexibility analysis regarding the potential impact of the Final Rule on small fuel retailers pursuant to sections 603 and 604 respectively; or alternatively (2) certify pursuant to section 605(b) that the Final Rule would not have "a significant economic impact on a substantial number of small entities," which certification would render sections 603 and 604 inapplicable to the Final Rule. Petitioner's Statement of Issues (Aug 29, 2017). Doc. No. 1713159.

[1] https://smallretailerscoalition.com/ (lasted visited on Feb. 15, 2018).

These claims all have fatal defects. First, because the Petition is untimely, the Court is without jurisdiction to hear any of the claims. 5 U.S.C. § 611(a); 42 U.S.C. § 7607(b). Under these RFA and CAA judicial provisions, any petition for review of the Final Rule, including claims pertaining to the Agency's compliance with the RFA, had to be filed within 60 days of the Final Rule's publication date – December 12, 2016. The petition was filed in August 2017, well outside the jurisdictional period.

Second, the Coalition's claim that EPA was required to consider the impact of the Final Rule on small retailers is contrary to the RFA. This statute requires only that the Agency consider the impact on small entities *that will be subject to the Final Rule*. *E.g. Mid-Tex Elec. Co-op., Inc. v. F.E.R.C.*, 773 F.2d at 342-43. The Final Rule imposed obligations on refiners and importers of gasoline and diesel fuel, but not on fuel retailers such as the members of the Coalition. 81 Fed. Reg. at 89,802.

For these reasons, which are explained in more detail below, the Coalition's petition for review should be dismissed.

BACKGROUND

A. Statutory Background of the RFA

The RFA, 5 U.S.C. §§ 601-612, requires an agency to identify the potential economic impact of proposed and final rules on small entities that will be subject to the rule's requirements. Prior to proposing a rule, an agency must prepare an initial regulatory flexibility analysis consistent with section § 603(b), which, in relevant part, requires that the analysis contain:

> (3) a description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;
>
> (4) a description of the projected reporting, recordkeeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record;

Id. § 603(a). A final regulatory flexibility analysis must be prepared for final rules. *Id.* § 604. However, these analyses are not required "if the head of the agency certifies that the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities." *Id.* § 605(b).

Section 611(c) provides the exclusive avenue for judicial review of an agency action under the RFA. This provision states: "Compliance or noncompliance by an agency with the provisions of this chapter shall be subject to judicial review *only* in accordance with this section." *Id.* (emphasis added). Section 611(a)(2) provides that judicial review of agency compliance with certain specified provisions of the RFA will be in the federal court with jurisdiction over the rule at issue. Section 611(a)(3)(A) provides that a small entity may seek such review up to a year after the date of the agency's final action, "except that where a provision of law requires that an action challenging a final agency action be commenced before the expiration of one year, such lesser period shall apply to an action for judicial review under this section."

B. Statutory and Regulatory Background of CAA.

1. Renewable Fuel Standard Program.

Congress enacted the Renewable Fuels Program to increase the volume of renewable fuels used for transportation fuel each year in order to "move the United States toward greater energy independence and security" and "increase the production of clean renewable fuels." *Americans for Clean Energy v. Environmental Protection Agency,* 864

F.3d 691, 697 (D.C. Cir. 2017) (quoting Energy Independence and Security Act, Pub. L. No. 110-140, §§ 201-202, 121 Stat. 1492, 1519-28 (2007) (codified at 42 U.S.C. § 7545(o)). The Program requires an increasing amount of renewable fuel to be introduced into the Nation's transportation fuel supply each year. *See* 42 U.S.C. § 7545(o).

To accomplish this goal, Congress specified increasing "applicable volumes" of four categories of renewable fuel to be used in the transportation sector each year. 42 U.S.C. § 7545(o)(2)(B)(i). The statute provides that the obligation to demonstrate that the applicable volumes have been met should fall on "refineries, blenders, and importers, as appropriate." *Id.* § 7545(o)(3)(B)(ii)(I). EPA has designated refiners and importers of gasoline and diesel fuel as the "appropriate" obligated parties under the Program. 40 C.F.R. § 80.1406(a)(1). *See Americans for Clean Energy*, 864 F.3d at 700. Each year, EPA is required to promulgate annual percentage standards to ensure that the applicable volumes will be used. 42 U.S.C. §§ 7545(o)(2)(A)(i), (iii), 7545(o)(3)(B)(i). Obligated parties apply those percentage standards to their own annual production or importation of

gasoline and diesel to calculate their individual renewable volume obligations. *Id.* § 7545(o)(3)(B)(ii).

2. Judicial Review

Under the Clean Air Act, a petition for review of any nationally applicable regulation (such as the Final Rule) "shall be filed within sixty days from the date notice of such promulgation . . . appears in the Federal Register". 42 U.S.C. § 7607(b).[2] This Court has exclusive jurisdiction to hear such a petition. *Id.*

3. The Final Rule

The Final Rule promulgated the renewable fuel standards for calendar year 2017.[3] These annual percentage standards solely apply to the obligated parties designated by EPA -- refiners and importers of gasoline and diesel fuel. 40 C.F.R. § 80.1406(a)(1). These standards do

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[2] Section 7607(b) provides an exception for petitions "based solely on grounds arising after such sixtieth day." *See Oljato Chapter of Navajo Tribe v. Train*, 515 F.2d 654, 660 (D.C. Cir. 1975). The Coalition's petition does not refer to any such grounds.

[3] The Final Rule also promulgated the applicable volume of biomass-based diesel for 2018, and a subsequent rulemaking subjected obligated parties to standards based on that applicable volume. *See* 82 Fed. Reg. 58,486 (Dec. 12, 2017).

not apply to fuel retailers, small or otherwise.[4] In the Federal Register notice publishing the Final Rule, the Agency also certified that the Final Rule "will not have a significant economic impact on a substantial number of small entities under the RFA." 81 Fed. Reg. at 89,802. The Agency stated that "[t]he small entities directly regulated by the RFS program are small refiners." *Id.* Pursuant to section 605(b) of the RFA, this certification made the requirements of sections 603 and 604 inapplicable to the Final Rule.

STANDARD OF REVIEW

Federal courts are courts of limited jurisdiction and may hear a case only if authorized to do so by the Constitution and statute. *Kokkonnen v. Guardian Life Ins. Co. of Am.*, 511 U.S. 375, 377 (1994). Petitioner bears the burden of establishing jurisdiction. *Id.*

As sovereign, the United States and/or its agencies may be sued only when Congress has consented to suit and waives sovereign immunity by statute. *Fed. Aviation Admin. v. Cooper*, 566 U.S. 284,

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[4] Indeed, the sole mention of fuel retailers in the entire RFS regulations, 40 C.F.R. Part 80 Subpart M, addresses an obscure exception to a product transfer document provision. 40 C.F.R. § 80.1453(b). That provision was not at issue in the Final Rule and is not at issue in this case.

290 (2012). A waiver of the United States' sovereign immunity must be "clear and unequivocal," not implied, and must be construed strictly in favor of the United States. *United States Dep't of Energy v. Ohio*, 503 U.S. 607, 615, 619-20 (1992).

ARGUMENT

I. THE COALITION'S PETITION IS UNTIMELY

The Coalition's Petition seeks review of the Final Rule.[5] Under the Clean Air Act, a petition for review of any nationally applicable regulation (such as the Final Rule) "shall be filed within sixty days from the date notice of such promulgation . . . appears in the Federal Register." 42 U.S.C. § 7607(b).[6] This time limit is jurisdictional in nature and cannot be modified or extended by the Court. *Motor &*

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[5] The Coalition's Petition more specifically states that it seeks review of EPA's "compliance with" the RFA "in promulgating" the Final Rule. EPA's compliance with the RFA in promulgating the Final Rule is subject to review only through a petition for review of the Final Rule itself. *See Mid-Tex Elec. Co-op*, 773 F.2d at 340-41 (citing *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 539 (D.C. Cir. 1983)).

[6] Section 7607(b) provides an exception for petitions "based solely on grounds arising after such sixtieth day." *See Oljato Chapter of Navajo Tribe v. Train*, 515 F.2d 654, 660 (D.C. Cir. 1975). The Coalition's petition does not refer to any such grounds.

Equip. Mfrs. Ass'n v. Nichols, 142 F.3d 449, 460 (D.C. Cir. 1998). Because the Coalition's Petition was not filed until August 29, 2017, approximately eight months after the Final Rule was published on December 16, 2016, the Petition must be dismissed for lack of jurisdiction.[7]

The RFA specifically recognizes that the limitations period imposed by the CAA is controlling. Section 611(a)(3), provides that a small entity may seek such review up to a year after the date of the agency's final action, "except that where a provision of law requires that an action challenging a final agency action be commenced before the expiration of one year, such lesser period shall apply to an action for judicial review under this section." The Clean Air Act's limitation period falls squarely into this exception under section 611(a)(3).

II. THE RFA DOES NOT REQUIRE EPA TO CONSIDER THE IMPACT OF THE FINAL RULE ON THE COALITION'S MEMBERS

As explained above, EPA did not prepare a regulatory flexibility analysis under section 604 for the Final Rule because the Agency

[7] Other petitioners did in fact file timely challenges to the Final Rule. *See Coffeyville Resources Refining & Marketing, LLC v. EPA*, D.C. Cir. No. 17-1044 (and consolidated cases).

instead certified that the Final Rule "would not have a significant impact on a substantial number of small entities under the RFA." 81 Fed. Reg. at 89,802. Because of this certification, the requirements of section 604 did not apply to the Final Rule. 5 U.S.C. § 605(b).[8]

EPA stated that the only small entities considered in the RFA analysis were small refiners. 81 Fed. Reg. at 89,802. The Coalition contends that the Agency was required to also consider the impact of the Final Rule on small fuel retailers. Statement of Issues at 2. This Court, however, has consistently rejected the contention that the RFA applies to small businesses indirectly affected by the regulation of *other* entities. *Cement Kiln Recycling Coal. v. EPA*, 255 F.3d 855, 869, (D.C. Cir. 2001); *Michigan v. EPA*, 213 F.3d 663, 688–89 (D.C. Cir. 2000); *Motor & Equip. Mfrs. Ass'n v. Nichols*, 142 F.3d at 467; *Mid-Tex Elec.*

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[8] The Coalition's claim under section 603 is not subject to judicial review. In section 611(a), Congress specifically identified the RFA provisions that could be the subject of judicial review. By omitting section 603 from this list, Congress precluded judicial review of agency compliance with the requirements of that section. *Allied Local & Reg'l Mfrs. Caucus v. EPA*, 215 F.3d 61, 79 (D.C. Cir. 2000) (finding that because section 611(a) does not include section 603 on the list of sections subject to judicial review, the court "may not review EPA's handling of these issues in terms of the agency's compliance with the RFA").

Co-op., 773 F.2d at 342. In *Mid-Tex Elec. Co-op.*, this Court explained that Congress "did not intend to require that every agency consider every indirect effect that any regulation might have on small businesses in any stratum of the national economy." 773 F.2d at 343. Therefore, Congress limited the RFA's requirements to "small entities to which the proposed rule will apply." *Id.* at 342.

EPA has designated refiners and importers of gasoline and diesel fuel as the obligated parties under the Renewable Fuel Standard Program. 40 C.F.R. § 80.1406(a)(1). The Final Rule promulgates the annual percentage standards applicable to these obligated parties for calendar year 2017. 81 Fed. Reg. at 89,749. Retailers such as the members of the Coalition are not obligated parties, and therefore are not directly regulated by the Final Rule. Accordingly, the Coalition's claim that the RFA required EPA to consider the impact of the Final Rule on its members must be rejected.

CONCLUSION

For the foregoing reasons, the petition should be dismissed.

Respectfully submitted,

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Acting Assistant Attorney General

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CERTIFICATE OF COMPLIANCE

I hereby certify that this brief complies with the requirements of Fed. R. App. P. 27(d)(1)(E) and Fed. R. App. P. 32(a)(5) and (6) because it has been prepared in 14-point Century Schoolbook, a proportionally spaced font.

I further certify that this motion complies with the type-volume limitation of Fed. R. App. P. 2(d)(2)(B) because it contains 2278 words.

/s/ *Eileen T. McDonough*

CERTIFICATE AS TO PARTIES, RULINGS AND RELATED CASES

A. The parties in this matter are Petitioner Small Retailers Coalition and Respondent United States Environmental Protection Agency ("EPA"). There are no intervenors or amicus curiae.

B. The ruling under review is the final rule promulgated by EPA: "Renewable Fuel Standard Program: Standards for 2017 and Biomass-Based Diesel Volume for 2018," 81 Fed. Reg. 89,746 (Dec. 12, 2016).

C. There are no related cases.

/s/ *Eileen T. McDonough*

CERTIFICATE OF SERVICE

I hereby certify that on February 20, 2018, I submitted the foregoing to the Clerk of the Court for filing and uploading to the CM/ECF system, which shall send notification of such filing to counsel of record.

/s/ *Eileen T. McDonough*

Message

From: Stahle, Susan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B25318C6014D4FB985288E15143C8596-SSTAHLE]
Sent: 9/12/2018 4:33:02 PM
To: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Sutton, Tia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=25e87403f63143acbb959446512a372c-Sutton, Tia]; Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Nelson, Karen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3492adee9fab4a02956fcf63f0de048b-Nelson, Kar]; Michaels, Lauren [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]; Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]; McKenna, Chris [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=451b675850124bf4a9db1d577ee3b9af-McKenna, Ch]; Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]
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Attachments: PRUITT Petition for reconsideration.pdf

ACP; Deliberative Process / Ex. 5

I sure hope I am not the only one who has read this delightful document.... ☺

Susan Stahle
Air and Radiation Law Office
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From: Hengst, Benjamin
Sent: Wednesday, September 12, 2018 11:45 AM
To: Sutton, Tia <sutton.tia@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Nelson, Karen <nelson.karen@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Stahle, Susan <Stahle.Susan@epa.gov>; Parsons, Nick

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Subject: Hengst, Benjamin shared "2018.9.14 SRE litigation" with you.

All: this version of the Wehrum briefing incorporates Sue's edits. Please make any further edits/comments by noon on Thursday, 9/13. thanks, Ben

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2018.9.14 SRE litigation

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July 31, 2018

Via Electronic Mail

The Honorable Andrew Wheeler
Acting Administrator
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, NW
Mail Code: 1101A
Washington, DC 20460

RE: Petition for Reconsideration and Rulemaking and Request for Administrative Stay regarding Small Refinery Exemptions

Dear Acting Administrator Wheeler:

Pursuant to Section 307(d)(7)(B) of the Clean Air Act, 42 U.S.C. § 7607(d)(7)(B), and the Administrative Procedure Act, Producers of Renewables United for Integrity Truth and Transparency (Petitioner)[1] respectfully submits this Petition for Reconsideration and Rulemaking and Request for Administrative Stay. This petition relates to EPA's recent handling of the small refinery exemption under the Renewable Fuel Standard (RFS) program. We request that EPA reconsider and revise the following final agency actions:

1) EPA's decision to allow obligated parties to issue 2018 Renewable Identification Numbers (RINs) related to production of biofuels that did not occur in 2018 ("Small Refinery Generated RINs");[2]

2) 40 C.F.R. § 80.1441; and

3) The volumes used to set the percentage standards by EPA for 2016, 2017 and 2018.[3]

---

[1] Petitioner includes biomass-based diesel producers that participate in the RFS program. These companies generate and/or hold RINs. As a result of EPA's actions, RIN values have substantially decreased. In addition, allowing these invalid RINs to enter the market reduces the actual gallon volumes that will be required in 2018, adversely affecting biofuel companies selling into that market.

[2] Jarrett Renshaw & Chris Prentice, *U.S. EPA Grants Refiners Biofuel Credits to Remedy Obama-Era Waiver Denials*, Reuters, May 31, 2018, https://www.reuters.com/article/us-usa-biofuels-waivers-exclusive/exclusive-us-epa-grants-refiners-biofuel-credits-to-remedy-obama-era-waiver-denials-idUSKCN1IW1DW.

[3] We are aware of a pending petition for reconsideration related to 40 C.F.R. §80.1405 submitted by the Renewable Fuels Association et al. We agree with the basic argument of this petition that EPA can, and must, make up for the lost volumes as a result of the recent grants of extensions of the small refinery exemption.

We believe EPA's recent handling of the small refinery exemptions violates the requirements under the Clean Air Act, requiring reconsideration of these final agency actions and invalidation of any RINs generated based on EPA's impermissible actions.

EPA's grant of retroactive extensions long after the compliance period and allowance of Small Refinery Generated RINs have had a significant impact on the market, requiring an immediate stay of any transfer or use of the 2018 Small Refinery Generated RINs and halting of any additional grants of small refinery exemptions or revival of prior year RINs in response to requests by small refineries. A July 12, 2018 letter to Senator Grassley from EPA indicates that EPA continues to grant exemptions for the 2016 and 2017 compliance years, and, thus, EPA may continue to do so months after the compliance period for those years has ended. EPA must come into compliance with the Clean Air Act before it takes any further action related to small refinery exemptions.

The adverse impacts of EPA's actions have only been exacerbated by EPA's lack of transparency on its handling of the small refinery exemptions. EPA's failure to provide notice and comment on allowing Small Refinery Generated RINs violates the Clean Air Act's procedural requirements. EPA's refusal to provide information regarding the small refinery exemptions is also contrary to EPA's own prior determinations. As such, we also request that EPA finalize proposed regulation 40 C.F.R. § 80.1441(e)(2)(iv), which was part of the proposed Renewables Enhancement and Growth Support Rule, 81 Fed. Reg. 80,828, 80,934 (Nov. 16, 2016). There, EPA explained that they had made a "determination that basic information related to EPA actions on petitions for RFS small refinery and small refiner exemptions may not be claimed as confidential business information." *Id.* at 80,909. EPA was simply proposing to codify this determination.

BACKGROUND

I. The RFS and the Small Refinery Exemption

In 2007, the RFS was expanded to require that a *minimum* volume of transportation fuel sold or introduced into commerce in the United States include renewable fuel, advanced biofuel, cellulosic biofuel, and biomass-based diesel. 42 U.S.C. § 7545(o). Congress has made clear that EPA's regulations must "ensure" these minimum applicable volume requirements are met. *Id.* § 7545(o)(2)(A)(i). "Regardless of the date of promulgation, the regulations … shall contain compliance provisions applicable to refineries, blenders, distributors, and importers, as appropriate, to *ensure*" the volumes are met. *Id.* § 7545(o)(2)(A)(iii) (emphasis added). Congress again stated that EPA must "ensure" the volumes are met through the setting of the applicable percentages, often referred to as the renewable volume obligations or RVOs. *Id.* § 7545(o)(3)(B)(i).

The RFS is a "technology-forcing" mandate, but Congress included an increasing volume requirement over time, recognizing that the market may need to take actions to adjust. Congress gave small refineries a "temporary exemption" from the RVO requirements until calendar year 2011. 42 U.S.C. §7545(o)(9)(A). A small refinery is a refinery with an average crude oil throughput of no more than 75,000 barrels per day. *Id.* § 7545(o)(1)(K). This exemption may be "extend[ed]" if (1) a required study by the U.S. Department of Energy (DOE) found a small

refinery eligible for the temporary exemption would be subject to "disproportionate economic hardship" if required to comply with the RFS requirements, or (2) EPA determines, based on a request from the small refinery and in consultation with the Secretary of Energy, that the small refinery will suffer "disproportionate economic hardship." *Id.* § 7545(o)(9)(A)(ii), (9)(B). Small refineries may request an "extension" "at any time," and EPA must act on the petition within 90 days. *Id.* § 7545(o)(9)(B)(i), (iii). In evaluating the petitions, EPA must consider the DOE study "and other economic factors." *Id.* § 7545(o)(9)(B)(ii). The statute also provides that small refineries that "waive[] the exemption" are eligible to generate credits. *Id.* § 7545(o)(9)(C), (o)(5)(A)(iii). Any credits generated have a limited life of 12 months. *Id.* § 7545(o)(5)(C).

In 2010, EPA promulgated regulations to implement the 2007 amendments to the RFS program. 75 Fed. Reg. 14,670 (Mar. 26, 2010).[4] EPA included a regulation outlining the process for small refineries to seek an extension of the temporary exemption. 40 C.F.R. § 80.1441. Under that regulation, a small refinery eligible for the temporary exemption was required to submit a verification to EPA by July 1, 2010. Those eligible refineries could obtain an extension based on the DOE study or based on a petition. For the latter, the petition "must specify the factors that demonstrate a disproportionate economic hardship and must provide a detailed discussion regarding the hardship the refinery would face in producing transportation fuel meeting the requirements of § 80.1405 *and the date the refiner anticipates that compliance with the requirements can reasonably be achieved at the small refinery*." 40 C.F.R. § 80.1441(e)(2)(i) (emphasis added). To qualify for the extension, the refinery "must meet the definition of 'small refinery' in §80.1401 for the most recent full calendar year prior to seeking an extension *and must be projected to meet the definition of 'small refinery' in §80.1401 for the year or years for which an exemption is sought*." *Id.* §80.1441(e)(2)(iii). "Failure to meet the definition of small refinery for any calendar year for which an exemption was granted would invalidate the exemption for that calendar year." *Id.* The regulation speaks in prospective terms.

In 2010, EPA also assured the public that it will account for the volumes of gasoline and diesel "projected to be produced by exempt small refineries and small refiners" when setting the annual RVOs. 40 C.F.R. § 80.1405(c); 75 Fed. Reg. 76,790, 76,805 (Dec. 9, 2010); *see also* 75 Fed. Reg. at 14,716-14,717 ("Thus we have excluded their gasoline and diesel volumes from the overall nonrenewable gasoline and diesel volumes used to determine the applicable percentages until 2011."); 77 Fed. Reg. 1319, 1324 (Jan. 9, 2012) (EPA "has also adjusted the final 2012 percentage standards to reflect the exemption of these small refineries from being RFS obligated parties in 2012.").

Following the release of DOE's small refinery study in 2009, Congress directed DOE to complete a reassessment and issue a revised report.[5] Based on DOE's study, it was recommended to extend the exemption for thirteen small refineries based on a disproportionate

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[4] 40 C.F.R. § 80.1441 was amended in 2014, 79 Fed. Reg. 42,128, 42,163 (July 18, 2014).

[5] The Senate Appropriations Committee "directed [DOE] to reopen and reassess the Small Refineries Exemption Study by June 30, 2010," listing a number of factors that the Committee intended DOE to consider in the revised study. S. Rep. No. 111-45 at 109 (2009); *see also* H.R. Conf. Rep. No. 111–278 at 126 (2009).

hardship if required to participate in the program.[6] Those refineries were exempt from the 2011 and 2012 RVOs. EPA also indicated it adjusted the RVOs accordingly. 77 Fed. Reg. at 1323.

II. EPA's Recent Actions Regarding the Small Refinery Exemption.

On July 12, 2018, EPA sent a letter to Senator Grassley indicating that it had granted 19 exemptions for compliance year 2016 and 29 exemptions for compliance year 2017, but four remain pending at EPA. On May 31, 2018, it was reported that EPA has allowed two companies – Sinclair Oil and Holly Frontier – to generate 2018 RINs in light of a reversal of EPA's prior denial of an extension based on a decision by the Tenth Circuit in *Sinclair Wyoming Refining v. EPA*, 874 F.3d 1159 (10th Cir. 2017).[7] In that case, the Tenth Circuit found that EPA could not require long-term "viability" to establish economic "hardship." Nothing in the Tenth Circuit's decision, however, required EPA to subsequently grant the extension requests where the compliance year has long been over. More important, nothing in the decision indicates that EPA had authority to allow these companies to generate 2018 RINs to account for RINs they submitted in 2015, which represents production in either 2014 or 2015.[8]

Each report regarding EPA's recent handling of the small refinery exemption has resulted in: (a) subsequent reports of additional refineries seeking exemptions and (b) a drop in RIN prices. Testimony before the Subcommittee on the Environment in the House Energy and Commerce Committee on July 25, 2018 verified that the retroactive nature of these exemptions has affected the RIN market.[9]

III. Statutory Provisions Governing Reconsideration

Under Section 307(d)(7)(B) of the Clean Air Act, the Administrator is required to grant a petition for reconsideration upon a demonstration that it was impracticable to raise a particular objection during the period for public comment (but within the time specified for judicial review),[10] and the objection is of central relevance to the outcome of the rule. 42 U.S.C. § 7607(d)(7)(B). Reconsideration petitions are an appropriate forum to raise procedural violations. *Id.* § 7607(d)(9); *see also White Stallion Energy Center, LLC v. EPA*, 748 F.3d 1222 (D.C. Cir.), *cert. granted in part*, 135 S. Ct. 702 (2014). The Administrator also has the

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[6] Small Refinery Exemption Study: An Investigation into Disproportionate Economic Hardship, U.S. Department of Energy, March 2011.

[7] Jarrett Renshaw & Chris Prentice, U.S. EPA Grants Refiners Biofuel Credits to Remedy Obama-Era Waiver Denials, Reuters, May 31, 2018.

[8] Two other courts found "EPA's interpretation of 'disproportionate economic hardship' is reasonable." *Lion Oil Co. v. EPA,* 792 F.3d 978, 984 (8th Cir. 2015); *Hermes Consol., LLC v. EPA*, 787 F.3d 568, 575 (D.C. Cir. 2015). "[T]he relative costs of compliance alone cannot demonstrate economic hardship because all refineries face a direct cost associated with participation in the program. Of course, some refineries will face higher costs than others, but whether those costs impose disproportionate hardship on a given refinery presents a different question." *Hermes*, 787 F.3d at 575.

[9] *See, e.g.,* Testimony of Gabriel E. Lade Center for Agricultural and Rural Development Iowa State University before the Subcommittee on Environment, House Energy and Commerce Committee, July 25, 2018, https://docs.house.gov/meetings/IF/IF18/20180725/108610/HHRG-115-IF18-Wstate-LadeG-20180725.pdf.

[10] The time for seeking judicial review of a final agency action under the Clean Air Act is 60 days from the date of promulgation, approval or action, "except that if such petition is based solely on grounds arising after such sixtieth day, then any petition for review under this subsection shall be filed within sixty days after such grounds arise." 42 U.S.C. § 7607(b)(1).

authority to initiate reconsideration of an action even if he concludes that the standards of Section 307(d)(7)(B) have not been met. *See, e.g.,* 74 Fed. Reg. 66,470, 66,471 (Dec. 15, 2009) (granting reconsideration to clarify ambiguous definitions in regulation); 71 Fed. Reg. 14,665, 14,668 (Mar. 23, 2006) (granting petition for reconsideration due to confusion over EPA's methodology). EPA also must allow for petitions to amend or withdraw agency action under the Administrative Procedure Act, 5 U.S.C. § 553(e). Although a petition for reconsideration does not postpone the effectiveness of a rule, EPA may stay the effectiveness of a rule pending reconsideration, 42 U.S.C. § 7607(d)(7)(B), or through rulemaking.

Reconsideration is required here because EPA did not provide for notice and comment on its decision to allow Small Refinery Generated RINs. In addition, there are numerous grounds for objections that have arisen after EPA promulgated its small refinery exemption regulations and the RVOs in question related to EPA's handling of the small refinery exemption. These all require EPA to reconsider or revise its regulations and to true up the volume requirements for 2016, 2017 and 2018.

ARGUMENT

I. EPA Must Grant Reconsideration of its Decision to Reissue Prior-Year RINs.

A. The public could not raise its objections because EPA did not undergo notice and comment rulemaking.

Under EPA's regulations, the RIN-system is the means to show compliance with the RFS requirements. RINs are also intended to implement the credit program under the statute. In both cases, the statute requires EPA to promulgate *regulations*. Section 211(o)(2)(A)(iii) requires EPA's *regulations* to contain "compliance provisions" applicable to *refineries* to ensure the RVOs are met. 42 U.S.C. § 7545(o)(2)(A)(iii). Section 211(o)(5)(A) requires that EPA's *regulations* include a credit program. *Id.* § 7545(o)(5)(A). Promulgation of regulations requires notice and comment rulemaking. *See* 42 U.S.C. § 7607(d); *see also id.* § 7607(h) (stating intent of Congress that EPA "in promulgating any regulation under this chapter, shall ensure a reasonable period for public participation of at least 30 days"). Here, EPA has provided the public with no notice or opportunity to comment. This is in violation of the procedural requirements of the Clean Air Act and the Administrative Procedure Act.[11]

EPA's regulations do not provide any process for small refineries to generate RINs. 40 C.F.R. § 80.1426. While EPA provides for some generation of RINs to address certain invalid RIN circumstances, those instances are not present here. Nor can EPA assert it has enforcement discretion to allow RIN generation by the small refineries since there is no claimed violation of the Act by the small refineries and, thus, no enforcement case.

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[11] Because the statute requires "regulations," EPA cannot claim that it properly made this determination through an informal adjudication, which does not require public notice and comment. EPA has argued that "[i]nformal adjudications do not require notice and comment, *unless Congress directed an agency to provide such in a particular statute*." EPA Br., NBB v. EPA, Case Nos. 15-1072 and 15-1073, at 28 (D.C. Cir.).

B. The objections are of central relevance to EPA's decision.

Reconsideration is warranted here because EPA's decision to allow Small Refinery Generated RINs violates numerous provisions of the Clean Air Act and EPA's own regulations. While reports only reference HollyFrontier and Sinclair Oil, EPA's July 12th letter indicates that EPA is willing to retroactively grant exemptions after the compliance deadline. Because of EPA's lack of transparency and its determination that it has authority to allow obligated parties to generate RINs without any associated production in that year, the risk of additional RINs being reinstated goes well beyond these two companies.

a. EPA does not have authority to allow small refineries that have an exemption to generate RINs.

The RINs at issue here do not meet the requirements for a "credit" under the statute. The statute provides limited instances when a "credit" can be generated. As EPA has implemented the credit provision, the only potentially applicable scenario is the provision allowing for "the generation of credits by small refineries in accordance with paragraph (9)(C)." 42 U.S.C. § 7545(o)(5)(A)(iii). But, paragraph 211(o)(9)(C) applies only when a small refinery *waives* the exemption. These RINs are purportedly being generated based on a retroactive grant of an *extension*. There is no indication that Sinclair Oil or Holly Frontier provided EPA with the necessary waivers to be able to generate RINs. Indeed, indications are that they received additional extensions for later years. *See, e.g.,* Holly Frontier Corporation 10-K, Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, at 76 (Feb. 21, 2018) (noting EPA granted Holly Frontier retroactive small refinery exemptions for 2016 compliance year that saved the company about $58 million in RIN compliance costs).

The statute also allows for generation of credits "by any person that refines, blends, or imports gasoline that contains a quantity of renewable fuel that is greater than the quantity required under paragraph (2)." 42 U.S.C. § 7545(o)(5)(A)(i). These credits are being generated with no associated quantity of renewable fuel, and, as further explained below, allow a *reduction* of the quantity of renewable fuel needed to meet the RVOs. As such, they cannot represent a "quantity of renewable fuel that is greater than the quantity required under paragraph (2)."

While these Small Refinery Generated RINs purport to replace RINs submitted for compliance in 2015, such RINs represent production in 2015, and as early as 2014 to the extent they were valid carryover RINs. It is difficult to determine whether the RINs at issue actually represent over-compliance with the 2015 required volumes. But, even if true, EPA cannot assert that these 2018 RINs represent an exceedance of the 2015 volume requirements, because such credits can only have a 12-month life.[12] *Id.* § 7545(o)(5)(C). This 12-month limit makes sense since the applicable volumes were intended to be "minimums" and, thus, there is no indication

[12] EPA set the 2015 RVO based on available RIN supply. While EPA EMTS data shows that reported RVOs are higher than EPA's estimate for 2015, *see* https://www.epa.gov/fuels-registration-reporting-and-compliance-help/annual-compliance-data-obligated-parties-and, EPA has not released the total number of RINs generated by Holly Frontier and Sinclair Oil to be able to determine if the minimum volume requirements were exceeded for 2015.

that Congress sought to give parties credit in later years for over-compliance in earlier years.[13] Any such credits would have long expired, and EPA's authorization to generate 2018 RINs to allow them to be used in 2018 circumvents this statutory limit.[14]

Finally, the statute allows for generation of credits "for biodiesel." 42 U.S.C. § 7545(o)(5)(A)(ii). These credits are not being generated based on actual production of biofuel and, thus, this provision cannot apply.

b. EPA's actions violate the waiver provisions of the Act.

Allowing for Small Refinery Generated RINs also violates the waiver provisions of the Clean Air Act. In allowing these retroactive grants of these extensions and, more important, allowing current-year RINs to be generated without representing actual supply, EPA is effectively further reducing the volume requirements for 2018 (and possibly for 2019 if EPA also allows these RINs to be used for compliance in the next year).

The Clean Air Act provides very limited authority for EPA to waive the minimum applicable volumes required. 42 U.S.C. § 7545(o)(7). EPA can waive the statutorily mandated volume requirements only if, after public notice and opportunity for comment, the Administrator finds that implementation of those requirements would "severely harm the economy or environment of a State, a region, or the United States" or that "there is an inadequate domestic supply." *Id.* EPA has not met the requirements to issue a further waiver of the 2018 RFS volumes. As an initial matter, again, EPA provided no public notice or opportunity to comment on the issuance of these RINs.[15] Moreover, the retroactive grant of an extension of the small refinery exemption in 2015 cannot constitute severe economic harm to justify a waiver. The waiver provisions are not intended to address purported individual company harms. *See also* EPA, Renewable Fuel Standard Program Standards for 2018 and Biomass-Based Diesel Volume for 2019: Response to Comments ("2018 RFS Response to Comments") at 24 (2017) (stating that granting of small refinery exemption does not equate to economic harm under general waiver provision). Moreover, EPA has found that small refineries would not be negatively impacted by the RVOs it set. *See, e.g.,* 80 Fed. Reg. 77,420, 77,515 (Dec. 14, 2015).

c. The 2018 RINs at issue here are invalid under EPA's regulations.

EPA's actions here also violate its own regulations, and any party holding these Small Refinery Generated RINs are subject to enforcement. Under EPA's regulations, RINs are intended to represent production of biofuel. But, there is no biofuel production represented by these RINs. As such, the Small Refinery Generated RINs at issue here are invalid under EPA's regulations on several grounds.

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[13] Indeed, stakeholders have long raised concerns with the validity of EPA's regulations allowing for carryover RINs based on this limit on the life of a credit. Nonetheless, even under EPA's regulations, EPA only allows RINs to be used for compliance in the year they were generated (*i.e.*, the year the biofuel was produced) or the subsequent year. 2018 is several years removed from when the biofuel would have been produced.

[14] Because EPA has not provided any information regarding the basis for its determination, the public cannot determine whether there are other appropriate remedies available to Sinclair Oil or Holly Frontier. Regardless, this potential problem provides evidence that EPA must reconsider its regulations allowing requests for extensions to occur "at any time."

[15] The statute also required consultation with DOE and USDA.

First, these RINs are intended to represent RINs previously submitted for compliance and, thus, are a duplicate of a previously generated RIN. As such, they are invalid RINs under 40 C.F.R. § 80.1431(a)(1)(i).

Second, as noted above, these RINs would have expired, but for EPA allowing them to be reissued. A RIN is generated with *production* of renewable fuel. *See* 40 C.F.R. § 80.1425 (listing elements of a RIN based on, among other things, the volume of renewable fuel to which it is assigned, the registration number assigned to the producer or importer of the batch of renewable fuel, the registration number assigned to the facility at which the batch of renewable fuel was produced or imported; the type of renewable fuel the RIN represents, the amount of renewable fuel gallons). If EPA has now purported to grant the exemption, then the RIN is no longer being used for compliance in the calendar year in which it was generated or the following year, thus, it is "considered an expired RIN." *Id.* § 80.1428(c). An expired RIN is considered an invalid RIN and cannot be used for compliance purposes. *Id.*

Third, since the RINs do not reflect biofuel produced in 2018, the RINs cannot represent renewable fuel as defined in § 80.1401. 40 C.F.R. § 80.1431(a)(1)(vi). Because there was no renewable fuel produced in 2018, it also cannot be that the RINs accurately reflect the proper temperature adjustment for the volume produced, a proper equivalence value, or the correct "D" code "for the associated volume of fuel. *Id.* § 80.1431(a)(1)(ii), (iv) and (vii).

Finally, because there is no regulation authorizing generation of RINs in this context, they were "otherwise improperly generated." 40 C.F.R. § 80.1431(a)(1)(viii).

Thus, EPA has violated its own regulations in allowing these invalid RINs to be generated and it must put a lock on those RINs in the EMTS to prevent further transfer or use of such invalid RINs.

II. EPA's Regulations Require Reconsideration and Revision.

In light of EPA's recent actions regarding the small refinery exemptions, it is clear that EPA's regulations do not "ensure" the minimum applicable volumes are being met. *See* 42 U.S.C. §§ 7545(o)(2)(A)(i), (o)(3)(B)(i). As such, they require reconsideration and revision.

A. Reconsideration and revision of 40 C.F.R. § 80.1441 is required because EPA's application of the regulation has resulted in violations of the Clean Air Act.

Because the public could not predict EPA's retroactive grants of "extensions" well beyond the time for compliance or EPA's allowance of small refineries to reissue long-expired RINs, the public could not meaningfully assess how EPA's regulations for handling the small refinery exemptions might actually operate. *See Her Majesty the Queen in Right of Ontario v. EPA*, 912 F.2d 1525, 1532 (D.C. Cir. 1990) (noting ripeness depends on "whether consideration of the issue would benefit from a more concrete setting") (citations omitted). Thus, it was impracticable for the public to comment on the efficacy and potential implications of the provisions in 40 C.F.R. § 80.1441. *See PPG Indus., Inc. v. Costle*, 659 F.2d 1239, 1249-50 (D.C. Cir. 1981) (finding EPA failed to comply with notice requirements under Administrative

Procedure Act where regulation could not be understood without subsequent guidance issued by EPA).

While initially EPA made adjustments to account for the small refinery exemptions, it subsequently determined that it could grant extensions after the RVOs were finalized and make no adjustments to the required volumes. The public questioned EPA's authority to do so, noting, while the statute provides for petitions at "any time," EPA's authority to reduce the volumes is limited, and it was still subject to its overarching obligation to "ensure" the required volumes are met. *See, e.g.,* EPA-HQ-OAR-2010-0133-0159 at 8-10. The public also noted to EPA that Congress did not intend for small refineries to enter in and out of the program, even in the face of subsequent economic distress, and, even if it did, there were alternative ways to handle the petitions that would not result in improper reductions of the volumes. *Id.* More important, the public had reason to believe that a small universe of small refineries remained eligible for additional extensions.

Indeed, in response to these comments, EPA indicated that it had adjusted the volume to account for additional small refinery exemption extensions granted. 77 Fed. Reg. at 1340. EPA further responded, however, that it continued to stand by its position that adjusting the RVOs would bring uncertainty, and 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."[16] *Id.* EPA did not, however, explain why it could not revise its regulations to set a time frame by when such requests must be granted. *See also* 2018 RFS Response to Comments at 216 (finding comments on process to be outside the scope).

EPA's actions also illustrate how EPA's current regulations allow small refineries to speculate and manipulate the RIN market. EPA has recently raised concerns regarding potential RIN market manipulation, and testimony before a House Subcommittee reiterated this potential concern, noting possible issues with the handling of the small refinery exemptions. Understanding the rules upfront provides more certainty and stability and removes this potential.

Further, the public could not have anticipated that EPA would act in a manner that is inconsistent with its own regulations. *See Nat'l Envtl. Dev. Ass'n's Clean Air Project ("NEDA") v. EPA*, 752 F.3d 999, 1009 (D.C. Cir. 2014) ("It is 'axiomatic,' however, 'that an agency is bound by its own regulations. … 'Although it is within the power of [an] agency to amend or repeal its own regulations, [an] agency is not free to ignore or violate its regulations while they remain in effect.'") (citations omitted). The regulations require that the petitioning small refinery indicate when it can come into compliance. Instead, EPA has allowed refineries to wait until the end of the year to determine if they exceed the volume threshold, regardless of whether they can comply with the RFS program.[17]

EPA's determination that it should allow Sinclair Oil and Holly Frontier to issue 2018 RINs based on a retroactive grant of an exemption illustrates that EPA's regulations are inadequate. Reports of EPA's granting of exemptions and continued receipt of requests related to 2016 and 2017 compliance years raise the concern that EPA will determine it can continue to

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[16] We disagree with this notion, and refer EPA to the petition for reconsideration filed by the Renewable Fuels Association, et al., which explains why challenges to this determination were not ripe at the time and why EPA's expansion has altered the stakes for judicial review.

allow RINs to be generated when small refineries may have already submitted RINs for compliance. EPA's regulations must require the small refineries to meet the requirements of the regulations or submit these requests prior to the year in which the exemption is to apply.

Although the statute says the petition may be submitted at "any time," the statute also references "extensions." Moreover, EPA's own regulations require that the small refinery identify when it can come into compliance, indicating that the extension cannot end and then the small refinery ask for an extension. As described above, such a reading violates other provisions of the statute or allows EPA to circumvent these obligations. Rules of statutory construction require that the provisions be read in context. Indeed, EPA declined to find that the phrase "at any time" prevented it from requiring the extensions be requested prior to finalizing the standards, disagreeing "with commenters that stated that it is impractical to grant small refinery exemptions before the annual standards are established. 2018 RFS Response to Comments at 216. EPA simply stated that it believed its current approach remained appropriate.

Through its actions, EPA has fundamentally changed the regulatory program outlined in 40 C.F.R. § 80.1441, requiring notice and comment and significantly altering the stakes of judicial review. *See Sierra Club v. EPA*, 551 F.3d 1019, 1025 (D.C. Cir. 2008), *cert. denied*, 559 U.S. 991 (2010). It could not have been anticipated that EPA would not provide the public with an opportunity to comment on these changes, and it is not incumbent upon the public to remind EPA to follow the required procedures under the Act. *See, e.g., Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 521 (D.C. Cir. 1983) (finding EPA cannot "ignore the procedural requirements of §307(d)," even if the agency "gives a decent reason for doing so"). For all these reasons, the objections raised herein could not have been raised in the context of the 2010 RFS rulemaking.

B. EPA has Expressed the Need to Increase Transparency in the RIN market.

EPA has also acknowledged the need for greater transparency in the RIN market. Despite these acknowledgements, EPA has refused to provide details regarding its handling of the small refinery exemption. EPA has denied Freedom of Information Act requests, asking for basic information on the exemptions and has even failed to respond to requests for information from Congress.

But, EPA has already made a determination that basic information regarding the small refinery exemptions are not subject to confidential business information (CBI) and should be revealed to the public. EPA proposed to codify this determination in 2016,[18] explaining that it

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[17] For example, CVR Energy indicated that it "no longer qualifie[d] as a small refinery" in 2016. *See* CVR Energy Amicus Br. at 12, *Am. For Clean Energy v. EPA*, No. 16-1005 (D.C. Cir.). EPA had not indicated that it would grant "new" exemptions to small refineries that are no longer eligible or have entered into the program and simply wait and see if they meet the 75,000 barrel per day threshold.

[18] The proposed regulation would provide: "The following information related to petitions submitted under this section that have been accepted by EPA for evaluation is not entitled to confidential treatment under 40 CFR part 2, subpart B: (1) Petitioner's name. (2) The name and location of the facility for which relief is requested. (3) The general nature of the relief requested. (4) The time period for which relief is requested. (B) The following information related to EPA determinations on petitions submitted under this section is not entitled to confidential treatment under 40 CFR part 2, subpart B: (1) Petitioner's name. (2) The name and location of the facility for which relief was requested. (3) The general nature of the relief requested. (4) The time period for which relief was

sought to "clarify in the regulations that a clearly delineated set of basic information related to our decisions on small refinery/refiner exemption petitions is not entitled to treatment as CBI, since it is inherently part of the EPA's decision and is not 'obtained from a person' outside of government." 81 Fed. Reg. at 80,909. As EPA explained, this basic information is necessary to identify the nature and scope of work that the EPA has decided to undertake." *Id.* at 80,910. EPA has provided no indication to the public whether or why it has changed this determination.

C. New information also calls into question whether EPA's regulations adequately "ensure" the RVOs are being met with respect to the small refinery exemptions, requiring EPA to reconsider and revise its regulations.

EPA also must reconsider and revise its regulations based on new information that calls into question whether EPA is adequately ensuring the RVOs are being met, as required by the statute. Since EPA finalized the 2018 RVOs in December of 2017, there has been a steady stream of reports that EPA is exceeding its authority in its handling of the small refinery exemptions.

In its recent 2019 RFS proposal, EPA stated that approximately 1,460 million RINs were not required to be retired by small refineries that were granted hardship exemptions for 2017 and approximately 790 million RINs were not required to be retired by small refineries that were granted hardship exemptions for 2016, along with the RINs that Philadelphia Energy Solutions Refining and Marketing, LLC ("PESRM") was not required to retire as part of its bankruptcy settlement agreement. These are not de minimis amounts. And, because EPA had not accounted for small refinery exemptions in setting the RVOs, the actual volumes required fell below the 2016 and 2017 minimum applicable volumes. This was not the case in other years of the program.

Although EPA has indicated it may grant extensions after the RVOs are finalized, EPA provided no indication that it would grant requests for "extensions" well after the compliance deadline has passed. It is unclear how a small refinery can show disproportionate economic hardship due to the RFS when it has already complied with the program. On June 22, 2018, EPA updated its EMTS data based on data through June 10, 2018. Based on EPA's updated information, the overall RVO for 2017 was reduced by 258 million RINs compared to data from April. The overall advanced biofuel volume for 2017 was reduced by 57 million RINs compared to data from April. The biomass-based diesel RVO for 2017 was reduced by another 40 million RINs compared to data from May. Since the compliance deadline has passed, this illustrates that EPA continues to grant extensions retroactively. *See* EMTS Annual Compliance Data, as of June 10, 2018; EMTS Annual Compliance Data, as of April 17, 2018.[19] This presumably allows

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requested. (5) The extent to which EPA either granted or denied the requested relief. (C) The EPA will disclose the information specified in paragraphs (e)(2)(iv)(A) and (B) of this section on its Web site, or will otherwise make it available to interested parties, notwithstanding any claims that the information is entitled to confidential treatment under 40 CFR part 2, subpart B."

[19] The compliance deadline for 2017 was March 31, 2018. There is also evidence that EPA has granted exemptions for 2016 after the compliance deadline, which was March 31, 2017. Comparing EMTS data from June 10, 2018 to data from June 9, 2017 shows a reduction in the reported RVOs by 70 million RINs for the biomass-based diesel volume, by 87 million RINs for advanced biofuels, and by 439 million RINs. *See* EMTS Annual Compliance Data, as of June 10, 2018; EMTS Annual Compliance Data, as of April 17, 2018. This resulted in the

those parties who submitted RINs for compliance or who held onto RINs hoping for the exemption to flood the market with those RINs and claim an additional *profit*.

EPA is required to consult with DOE on any petitions. DOE has scored applications on a two-part test that considers whether compliance would lead to disproportionate impact or threaten a refinery's viability. On June 26, 2018, it was reported that EPA has ignored DOE's recommendations.[20] The report, based on two sources, indicated that "EPA has consistently granted full waivers in cases where the energy department recommended only partial exemptions, and, at least once, granted a full approval when the energy department advised an outright rejection." This is in stark contrast to the prior administration, "which had often either adopted energy department recommendations or, when it didn't, ruled against exempting oil refiners."[21] The EPA's increase in these "extensions" has sent the price of RINs to five-year lows.

III. EPA Must "Lock" the Invalid RINs Generated by HollyFrontier and Sinclair Oil, and Should Stay any Further Action on the Small Refinery Exemptions Pending Reconsideration.

Petitioner has demonstrated that reconsideration is warranted in this case. To mitigate against the harms caused by EPA's failure to comply with the notice and comment requirements of the Clean Air Act and by the approval of generation of invalid RINs, Petitioner requests that EPA immediately "lock" the 2018 RINs generated by Holly Frontier and Sinclair Oil so that they cannot be transferred or used for compliance. Because of the significant questions raised by EPA's current handling of the small refinery exemption, Petitioner also requests that EPA stay any further action under 40 C.F.R. § 80.1441 during the reconsideration process pursuant to 42 U.S.C. § 7607(d)(7)(B) or the rulemaking process to revise its regulations.

An administrative stay is appropriate and necessary while the Agency considers and addresses the numerous flaws in its handling of the small refinery exemptions. Under 42 U.S.C. § 7607(d), EPA may grant a 90-day stay pending reconsideration, and we respectfully request that it do so. We also believe justice also requires a stay under 5 U.S.C. § 705. Although we are requesting the stay, we believe the ongoing harms caused by EPA's actions and the clear violations of the statute require the stay be granted immediately. As such, this request should not be deemed as restricting the ability to assert seeking a stay with the agency would be impracticable. Indeed, numerous request have been submitted to EPA asking it to stop issuing invalid small refinery exemptions, yet reports continue that EPA is accepting and even granting such requests.[22]

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minimum volume requirements not being met for 2016. It is possible that some of this reduction was a result of the Philadelphia Energy Solutions bankruptcy.

[20] Jarrett Renshaw and Chris Prentice, *Trump's EPA ignored Energy Department calls to limit biofuel waivers*, Reuters, June 26, 2018, https://www.reuters.com/article/us-usa-epa-biofuels-exclusive/exclusive-trumps-epa-ignored-energy-department-calls-to-limit-biofuel-waivers-idUSKBN1JM17T.

[21] EPA has denied public records requests seeking information on these extensions.

[22] This stands in contrast to the grants of administrative stays this Administration has granted at the request of the petroleum industry. 82 Fed. Reg. 25,730 (June 2, 2017); 82 Fed. Reg. 27,133 (June 14, 2017).

A. EPA has violated several provisions of the Clean Air Act and, thus, Petitioner is likely to succeed on the merits.

As described above, EPA's actions are in clear violation of the Clean Air Act and its own regulations. These violations include:

1) Failing to provide notice and comment on the generation of 2018 RINs by obligated parties that are not producing biofuel;

2) Exceeding its authority under the Clean Air Act to allow generation of RINs by small refineries that have received an extension of the exemption under the Act;

3) Circumventing the limitation on the life of credits under the RFS program;

4) Allowing generation of 2018 RINs for which no "renewable fuel" was produced in 2018;

5) Allowing generation of invalid 2018 RINs that could be transferred or used for compliance in violation of EPA's regulations;

6) Improperly reducing the 2016, 2017 and 2018 volumes by retroactively granting small refinery exemptions, even after the compliance deadlines, and allowing generation of 2018 RINs; and

7) Failing to promulgate regulations that "ensure" the minimum required volumes are being met.

EPA's actions have undermined the purpose of the RFS program to provide a certain market for the promotion of biofuels, particularly advanced biofuels. The statute is clear, and, in any event, there is no reasonable interpretation of the statute that allows EPA to take these actions.

B. An administrative stay will prevent irreparable harm and is in the public interest.

Without an administrative stay, EPA's actions will continue to have a negative impact on the market and on biofuel producers, including those that are members of the Petitioner. They also will undermine the RFS program, which Congress found to be in the national interest.

The purpose of the RFS program was to incentivize investment in biofuel production. Biofuel producers have done just that. The volatility in the market caused by EPA's actions have caused producers to lose their investments. Those that own RINs have lost the value of those RINs, which, in turn, restrict their ability to continue to invest and grow the program.

By expanding the small refinery exemption, failing to adjust for the lost volumes, and allowing RINs to be generated without a corresponding production of biofuels, EPA is reducing the displacement of petroleum-based fuels with renewable fuels. As Congress has recognized, renewable fuels, particularly advanced biofuels, provides environmental benefits. EPA's actions, thus, allow for increases in greenhouse gas emissions, air toxics, and other pollutants that are harmful to the public health.

RINs have also provided rural economic benefits, and the reduced demand has had a negative impact on farmers. It also can affect the benefits to consumers, where EPA has consistently found that the RFS program has contributed to lower prices at the pump. This is particularly concerning today given the recent increases in fuel prices.

It is also in the public benefit that EPA follows good governance. The closed door actions by EPA undermine the regulatory process and the public's faith in the government.

C. An administrative stay will not cause harm to other parties.

The requested stay will not cause harm to other parties. Certain obligated parties and small refineries appear to be using the exemption to game the system and obtain profits, rather than take actions to come into compliance.

In *Americans for Clean Energy v. EPA*, the D.C. Circuit rejected a request for a stay from small refineries seeking to avoid their RFS obligations. Indeed, under EPA's regulations, those parties that are truly small refineries facing disproportionate economic harms should already have their extensions in place.

IV. SUMMARY AND CONCLUSION

For the foregoing reasons, we request that EPA reconsider its decision to allow obligated parties to generate RINs for prior years as a result of a change in status of the small refinery exemption. We further ask EPA to reconsider its process for granting these exemptions and its determination that it can and should continue to grant those exemptions after the volumes are set and after compliance. EPA has authority to initiate a rulemaking on these issues and should stay any further action regarding these "new" exemptions or reinstatement of RINs until it has provided the public with a clear and open process for doing so.

Respectfully submitted,

/s/ Jerome C. Muys, Jr.

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Message

From: Le, Madison [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=9297D8B52BCB41319BA40D11142AB307-LE, MADISON]
Sent: 6/8/2015 2:59:32 PM
To: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
CC: Jones, Jacqueline [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=16199688d4b34778ace3767cf6acb2af-Jones, Jacqueline]
Subject: RE: Biweekly Meetings on RFS Transparency Effort
Attachments: Transparency Questions Log_Master.xlsx; Biweekly Meeting_Scoping_RFS Transparency_6-8-15.pptx

Ben and Byron –

Attached are the materials for our first biweekly today at 1pm.

Agenda

- Provide updates on following action items:
  1) RFS/RIN related questions received to-date
  2) RFS team for suggestions and concerns
  3) OAP's Clean Air Markets Division transparency level
  4) Outreach to RIN market participants (brokers, traders)
  5) Literature search on related RFS RIN market papers
- Next Steps

Transparency Questions Log_...

Biweekly Meeting_Scoping...

Thanks,
Madison

-----Original Appointment-----
From: Le, Madison
Sent: Wednesday, May 13, 2015 12:35 PM
To: Le, Madison; Hengst, Benjamin; Bunker, Byron; Jones, Jacqueline
Subject: Biweekly Meetings on RFS Transparency Effort
When: Monday, June 08, 2015 1:00 PM-2:00 PM (UTC-05:00) Eastern Time (US & Canada).
Where: DCRoomARN6520S/DC-OAR-OTAQ-CD

Update: First biweekly meeting will start 6/8. DC room moved to 6520S. AA room N120 (Byron's office).

Ben and Byron - Mondays seem to work best for everyone. I'll send out materials prior to each meeting.

Jackye – can we reserve CD's conference room #5528 for these bi-weekly meetings? No other conference room has Monday availability on a reoccurring basis. Many thanks.

Message

From: Piotrowski, Greg [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=40BD03B05B8A409F91FBB8E3432D01AB-PIOTROWSKI, GREG]
Sent: 7/9/2015 7:01:37 PM
To: Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Manners, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebdb1392504a4b71894970b1a7bb186c-Manners, Mary]; Weihrauch, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=74d426b7439045d9a0a65b186ea68b21-Jweihrau]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]; Read, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dd15b97b60dd487bb865978544f1f6be-Read, David]; Reid, Lauren [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Sutton, Tia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=25e87403f63143acbb959446512a372c-Sutton, Tia]; Wyborny, Lester [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d62d7c48ca7b4c15803f0bd9af8f6f73-Wyborny, Lester]; Stahle, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b25318c6014d4fb985288e15143c8596-SSTAHLE]; thomas.white@hq.doe.gov; peter.whitman@hq.doe.gov; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
CC: Barry Schaps [bschaps@stillwaterassociates.com]; 'Michael Leister' [mleister@stillwaterassociates.com]
Subject: draft guidance for RFS small refinery petitions/fyi
Attachments: Draft Letter RFS Hardship Guidance.doc

All hi, attached is a draft of an RFS small refinery petition guidance document I prepared for the meeting earlier today, letter form, many issues yet to be fleshed out, but a placeholder start. Thought was to put the finished product out on the OTAQ Hardship website, together with a Disproportionate Hardship Index (revised) and a form 588 successor questionnaire, after they're finalized.

Barry and Mike hi, would you be available for a ½ hour phone meeting every other Thursday 2:00 pm Eastern, possibly starting next Thursday 7/16?

Gregory Piotrowski
Chemical Engineer/COR
Data Analysis & Information Center
Compliance Division, OTAQ, NVFEL
US Environmental Protection Agency
N15, 2000 Traverwood Drive
Ann Arbor, MI, USA 48105
Tel: 734.214.4493
Fax: 734.214.4053
email: piotrowski.greg@epa.gov

Message

From: Anderson, Robert [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=741BEFD619D44578BE1399B296C7C04A-RANDER02]
Sent: 8/3/2015 1:14:12 PM
To: Manners, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebdb1392504a4b71894970b1a7bb186c-Manners, Mary]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
CC: Weihrauch, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=74d426b7439045d9a0a65b186ea68b21-Jweihrau]
Subject: Re: RFS Questions for the Record from June 18 Senate hearing
Attachments: June 18 HSGAC-RAFM Hearing QFRs v2 - DK-tls+do - PA+RKA.docx

Deliberative Process / Ex. 5

Please let me know if there is anything else.

Cheers,

Robert

From: Manners, Mary
Sent: Friday, July 31, 2015 4:31 PM
To: Bunker, Byron; Anderson, Robert
Cc: Weihrauch, John
Subject: FW: RFS Questions for the Record from June 18 Senate hearing

I just got around to looking at this and noticed that you weren't on the distribution list. There appear to be two separate versions. I wanted to make sure you saw the E15 Qs and As (#s 3 and 5 from Sen Sasse) – especially #3.

From: Okoye, Winifred
Sent: Friday, July 31, 2015 1:37 PM
To: Orlin, David; Sutton, Tia; Korotney, David; Machiele, Paul; Argyropoulos, Paul; Burkholder, Dallas; Lie, Sharyn; Hengst, Benjamin
Cc: Dubois, Roland; Stahle, Susan; Manners, Mary; Cohen, Janet
Subject: RE: RFS Questions for the Record from June 18 Senate hearing

ACP; Deliberative Process / Ex. 5

ACP; Deliberative Process / Ex. 5

From: Orlin, David
Sent: Friday, July 31, 2015 8:48 AM
To: Sutton, Tia; Korotney, David; Machiele, Paul; Argyropoulos, Paul; Burkholder, Dallas; Lie, Sharyn; Hengst, Benjamin
Cc: Dubois, Roland; Stahle, Susan; Manners, Mary; Cohen, Janet; Okoye, Winifred
Subject: Re: RFS Questions for the Record from June 18 Senate hearing

I made a few quick comments (although I think OGC usually gets to see these again after you send them to RMO or whoever). Also adding Winnie bcs. of the RVP question on p. 3 or so (Sue note that question and the last one on small refinery exemptions).

David Orlin
U.S. EPA, Office of General Counsel
(202) 564-1222

From: Sutton, Tia
Sent: Thursday, July 30, 2015 7:21 PM
To: Korotney, David; Machiele, Paul; Argyropoulos, Paul; Burkholder, Dallas; Lie, Sharyn; Hengst, Benjamin
Cc: Orlin, David; Dubois, Roland; Stahle, Susan; Manners, Mary; Cohen, Janet
Subject: RE: RFS Questions for the Record from June 18 Senate hearing

Thanks, Dave. I have included my draft responses on top of the file Dave sent.

Others that were assigned Qs here, please take a look at these as soon as you can. **Again, we would like to try and have drafts to all of the responses by COB tomorrow- Friday, July 31.** And if our responses are in pretty good shape by then, it would be great to get these in OCIR's hands tomorrow or Monday so they can start reviewing (in order for us to meet the Subcommittee deadline of August 11th).

I will be checking email periodically while I'm out of the office tomorrow, but please make sure to include Ben in any drafts that you send.

Thanks!
-Tia

(ps to Ben- this file is saved on the X drive at: _X-drive (DC IO shared)\Congressional\Hearings\QFRs\Senate HSGAC\6-18 RAFM Hearing on RFS)

From: Korotney, David
Sent: Thursday, July 30, 2015 3:26 PM
To: Sutton, Tia; Machiele, Paul; Argyropoulos, Paul; Burkholder, Dallas; Manners, Mary; Lie, Sharyn; Cohen, Janet
Cc: Hengst, Benjamin; Orlin, David; Dubois, Roland; Stahle, Susan
Subject: RE: RFS Questions for the Record from June 18 Senate hearing

Here's a first shot at some responses.

From: Sutton, Tia
Sent: Tuesday, July 28, 2015 4:17 PM
To: Machiele, Paul; Argyropoulos, Paul; Korotney, David; Burkholder, Dallas; Manners, Mary; Lie, Sharyn; Cohen, Janet
Cc: Hengst, Benjamin; Orlin, David; Dubois, Roland; Stahle, Susan
Subject: FW: RFS Questions for the Record from June 18 Senate hearing

Hi everyone,
Attached are the QFRs again, but with names assigned to the responses, and some draft responses that Paul M started. If you do not agree with being assigned a question, please speak up – preferably with a suggestion of who it should go to instead. And feel free to forward to others that should've been included.

As a reminder, we've been asked to Deliberative Process / Ex. 5 **, and we need to send our draft responses back to OCIR soon** because they will need time to move through the review chain to get to the Subcommittee by the Aug 11th deadline. Since most of you will be mired in other RFS-related fun now that the comments have come in, **let's aim to try and have draft responses by COB this Friday (July 31)**.

A few quick notes:

- **Dave and Janet/Mary/Sue**- the small refinery Qs from Enzi include both programmatic questions (Dave) and small refinery-specific questions (Janet/Mary/Sue), so we'll need to tag-team this one.
- **Sharyn** – is someone in your Center the correct person to handle the Brazil question from Sen. Sasse?
- The 6/18 hearing transcript is attached in case you need it for reference.
- I will send draft responses to the Qs I assigned to myself separately, wanted to get this out sooner rather than later.

Thanks,
Tia

From: Sutton, Tia
Sent: Wednesday, July 22, 2015 7:01 PM
To: Argyropoulos, Paul; Hengst, Benjamin; Orlin, David; Dubois, Roland; Machiele, Paul; Korotney, David; Burkholder, Dallas; Cohen, Janet; Stahle, Susan
Cc: Manners, Mary
Subject: RFS Questions for the Record from June 18 Senate hearing

Hi all,
Attached are the QFRs that we received from Janet's 6/18 Senate hearing on RFS. Some of the Q&As from the hearing prep materials should help to respond to some of the questions.

The Subcommittee has asked that we respond by August 11th, and OCIR would like for us to meet that deadline. In order for that to happen, we'll need to wrap these up in a week or so to allow time for them to get through the review chain, OMB, and back over to the Subcommittee. We've also been asked to keep the responses brief.

Janet/Sue- please note that the last page has questions from Sen. Enzi (of Wyoming) on small refinery issues.

-Tia

Message

From: Weihrauch, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=74D426B7439045D9A0A65B186EA68B21-JWEIHRAU]
Sent: 8/31/2015 7:00:52 PM
To: Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]; Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Manners, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebdb1392504a4b71894970b1a7bb186c-Manners, Mary]
Subject: RE: FCC Monthly Tracking Meeting
Attachments: FCC_July2015 Report.docx; FCC_June2015 Report.docx

FCC_July2015 Report.docx

FCC_June2015 Report.docx

Message

From: Weihrauch, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=74D426B7439045D9A0A65B186EA68B21-JWEIHRAU]
Sent: 9/7/2018 4:21:37 PM
To: Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]; Manners, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebdb1392504a4b71894970b1a7bb186c-Manners, Mary]; Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Irving, Sheila [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=934f8cc00f8d4ae6b7e7f480884a7974-Irving, Sheila]
Subject: RE: FCDC Monthly Tracking
Attachments: FCDC Monthly Summary August 2018.docx

See attached for our 1:00 PM tracking discussion.

John

Message

From: Manners, Mary [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=EBDB1392504A4B71894970B1A7BB186C-MANNERS, MARY]
Sent: 5/29/2014 3:39:27 AM
To: Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]; Weihrauch, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=74d426b7439045d9a0a65b186ea68b21-Jweihrau]
Subject: RE: 1 page Backgrounder for Simpson
Attachments: small refinery hardship exemption 1-pager.docx

Here's a draft of one for your review.

From: Bunker, Byron
Sent: Wednesday, May 28, 2014 6:19 PM
To: Manners, Mary; Weihrauch, John
Subject: Fw: 1 page Backgrounder for Simpson

Do we have an RFS waiver one pager already done that could be shared with Mike?

See email below.

Sent from my BlackBerry 10 smartphone.

From: Grundler, Christopher
Sent: Wednesday, May 28, 2014 6:13 PM
To: Haley, Mike
Cc: Bunker, Byron
Subject: Re: 1 page Backgrounder for Simpson

I'd ask Byron but he and his team are at DOE all day to.orrow working on hardships

Christopher Grundler, Director
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
202.564.1682 (DC)
734.214.4207 (Ann Arbor)
www.epa.gov/otaq

From: Haley, Mike
Sent: Wednesday, May 28, 2014 6:00 PM
To: Grundler, Christopher
Cc: Bunker, Byron
Subject: Re: 1 page Backgrounder for Simpson

I'll give it a try.

From: Grundler, Christopher
Sent: Wednesday, May 28, 2014 5:57 PM
To: Haley, Mike
Cc: Bunker, Byron
Subject: 1 page Backgrounder for Simpson

Mike—

Deliberative Process / Ex. 5

thanks

Message

From: Turley, Jennifer [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=FA452016486D48E8AE07B0A3B064D5FB-TURLEY, JENNIFER]
Sent: 3/10/2014 3:01:51 PM
To: Allnutt, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6e28f5bf9cbf4b8b9eda7751c2f10750-Allnutt, David]; Anderson, Lea [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b8317edf62f74e67bcf42adbdf7785e9-LANDER03]; Anderson, Steve [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=68706e18c9db4843904d764ebf36be51-Anderson, Steve]; Aranda, Amber [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2557889d5f134a3dbc525a2dbf6bfdf2-AARANDA]; Averback, Jonathan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a22b8532c15649898118cf917497a43d-JAVERB02]; Bennett, Karen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=af90b07531b04472bffff51c1db461e3-Bennett, Karen]; Bessette, Suzanne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=98b912bfec4b4217a0db83498f7a68dc-Bessette, Suzanne]; Bogoshian, Matthew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=70d29397f1114458b128a320558acfa5-Bogoshian, Matthew]; Branning, Amy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a3f510cced11492d88cc26ed073b7f10-ABRANNIN]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]; Cappuccio, Michelle [Cappuccio.Michelle@epa.gov]; Chapman, Apple [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c52a18bcf6164b6d9f04545db694cac1-ACHAPMAN]; Chester, Steven [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f844c6162c834219835fef7c21a8385c-Chester, Steven]; Cozad, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4a30a28be6a74d3da779bb7f7b34a876-COZAD, DAVID]; Crum, Lynda [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5543f4b8ac084f9097d20020a6d3ae1d-Crum, Lynda]; Crystal, Roy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a95420e7d9454955a89699ead70b1c6e-Crystal, Roy]; Davis, Julian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6bdfbdf185cc43f39aedec9ad41fc4a4-Davis, Julian]; Dickinson, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fe903e3f06aa4bb7b3f1158653f6dac5-DDICKINS]; Dierker, Carl [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d1f9b7627f8e4efab65f9e9513bf323e-Dierker, Carl]; Dolph, Becky [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c818363088ca49878e534da81c7d9e6e-DOLPH, BECKY]; Doster, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=322510375a3644b48f424addff4962da-BDOSTER]; Dubey, Susmita [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b34fe7fa4fdf4179acad262eeec5cc37-SDUBEY]; Dubois, Roland [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=835458b87b574ccbb1704415df8413d1-RDUBOIS]; Embrey, Patricia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=66b75368935a4ffc997809756ca2d498-PEMBREY]; Frey, Bert [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c03dece9974f4bb79006fdb7b53b5d95-BFrey]; Froikin, Sara [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e52fe29f223f4e869b82918294900d8f-Froikin, Sara]; Giles-AA, Cynthia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d8c601b5c9fd4d828290e285dac7cc56-Giles-AA, Cynthia]; Graham, Cheryl [/o=ExchangeLabs/ou=Exchange Administrative Group

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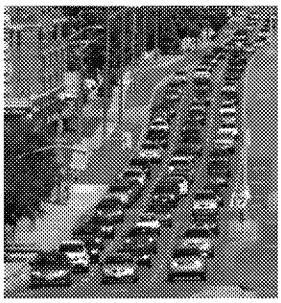
Subject: Air & Radiation Law News for March 10, 2014



Air & Radiation Law News for March 10, 2014

Bloomberg BNA Daily Environment Report™

Air Pollution

California Unveils Plan to Ease Rules for In-Use Diesel Trucks, Buses

The California Air Resources Board has unveiled a proposal to make it easier for the owners of small and lower-mileage fleets of diesel trucks to comply with tough emissions standards being phased in between 2012 and 2023....

Air Pollution

Smaller Ships Shouldn't Be Required to Use Low-Sulfur Fuel Off U.S. Coast, Industry Says

Low-powered ships shouldn't be required to switch to low-sulfur fuel oil when operating off the coast of the United States, a North American shipping company representative told a congressional panel March 4. ...

Climate Change

28 Senators to Hold All-Night Session March 10 to Urge Climate Change Action

Nearly 30 Democratic and Independent senators are expected to participate in an all-night session on the Senate floor discussing the need to act to address climate change from the evening of March 10 through 9 a.m. March 11....

Climate Change

Kerry Tells American Diplomats to Factor Climate Change Into Foreign Policy Work

Secretary of State John Kerry has called on American diplomats around the world to find ways to integrate climate change into their day-to-day foreign policy activities....

Climate Change

Proposal Would End Alternative Emissions Reporting

The Environmental Protection Agency will publish a proposed rule March 10 that would eliminate an option for oil and natural gas producers to use alternative greenhouse gas calculation methods as part of the annual reporting requirements...

Climate Change
Sullivan Confirmed by Senate to Lead
NOAA as Climate Change Challenges Loom
Kathryn Sullivan, who has been serving as acting administrator of the National Oceanic and Atmospheric Administration for more than a year, was approved for the permanent position March 6 by the Senate....

Emissions Trading
RGGI Allowances Sell for Record Price
Of $4 in First Auction After Cap Lowered
The Regional Greenhouse Gas Initiative announced March 7 that carbon dioxide allowances sold for a record high price of $4 in its recent auction, the first since the nine RGGI states lowered their regional cap on carbon dioxide emissions....

Energy
FERC Seeks Larger Hydroelectric Budget,
Cites Environmental Work, Project Licensing
The Federal Energy Regulatory Commission has proposed a fiscal year 2015 budget of $76.6 million for hydroelectric power regulation, a 9.3 percent increase from the estimated fiscal 2014 amount....

Energy
Keystone Pipeline Supporters, Opponents Make Final Appeals to U.S.
Proponents and critics of Keystone XL pipeline unleashed a final flurry of pleas to persuade the government on the proposed pipeline, which has become a flash point in a debate over energy development versus climate protection....

Energy
Markey Bill Would Add Considerations
For DOE Approval of Natural Gas Exports
Legislation introduced by Sen. Ed Markey (D-Mass.) would require the Energy Department to consider additional factors before approving the export of liquefied natural gas to overseas markets. ...

Energy
Wyoming Refinery Files Second Lawsuit
After EPA Denial of Exemption on Blending
A Wyoming petroleum refinery filed a second lawsuit against the Environmental Protection Agency after the agency denied the company a small refinery exemption from the renewable fuel standard's blending requirements (Hermes Consol....

Federal Facilities
Obama Nominates DOE Official to Manage Cleanups
President Barack Obama announced his intent March 6 to nominate Monica C. Regalbuto as assistant energy secretary for environmental management. Since 2011, Regalbuto has served as deputy assistant secretary for fuel cycle technologies...

Hazmat Transport
U.S. Oil Rail Shipments Up 6.5 Percent in 2014
The U.S. rail industry transported 127,534 carloads of crude oil between Jan. 1 and the week ending March 1, representing a 6.5 percent increase compared with the first two months of 2013, according to the Association of American Railroads....

Ozone Depletion
EPA Proposes Critical Uses for Methyl Bromide
California strawberry growers and dry cured pork producers would be allowed to use the ozone-depleting pesticide methyl bromide in 2014 and 2015 under an Environmental Protection Agency proposed rule published March 7 in the Federal Register...

Sustainability

Investors Pay More Attention to Climate Change In 2014 Proxy Season, Ceres Says
Investors are paying more attention than ever to risks and opportunities that climate change and other environmental issues can pose to companies in their portfolios, the sustainability advocacy group Ceres said March 7....

EPA Plan To Subject EOR To CCS Permits May Thwart NSPS, Critics Warn
EPA's draft guide for transitioning some enhanced oil recovery (EOR) wells to strict underground injection control (UIC) permits for carbon capture and sequestration (CCS) projects is drawing strong criticisms from industry groups who say it could prompt well operators to refuse carbon dioxide (CO2) from utilities to escape the new regulatory burdens, undermining the agency's pending power plant rule requiring CCS.

Latest Blogs

McCarthy Vows Utility NSPS Will Not Harm Industry
EPA Administrator Gina McCarthy is vowing that the agency's pending climate new source performance standards (NSPS) for existing utilities will not "put the brakes on . . .

Supreme Court Revises GHG Suit Transcript
The Supreme Court has revised its transcript from Feb. 24 oral arguments in litigation filed by industry groups and others over EPA's rule for triggering . . .

EPA Rejects Cost Fears In Approving Oklahoma Haze Plan
EPA has approved Oklahoma's plan to cut emissions that contribute to regional haze by retiring two coal-fired power plants in 2016 and 2026 over objections . . .

Greenwire

AIR POLLUTION:

EPA calls for another 'voluntary remand,' this time for mercury, toxics rules

Jeremy P. Jacobs, E&E reporter

Published: Friday, March 7, 2014

U.S. EPA has asked a federal appeals court to let it take another look at its controversial standards for mercury and air toxics from new power plants, an acknowledgment that the regulations may not hold up to judicial review.

The agency asked the U.S. Court of Appeals for the District of Columbia Circuit for a "voluntary remand without vacatur" of some its National Emission Standards for Hazardous Air Pollutants from new power plants. The rules have been challenged as too weak by environmental groups and as too stringent by the utility sector.

EPA asked for the remand in light of a D.C. Circuit ruling in August 2013 that said EPA had not fully explained or justified its statistical methods for setting a base-line emissions limit or the maximum achievable technology (MACT) floor when it set air standards for sewage sludge incinerators. EPA must set that floor based on the top 12 percent of performing facilities (*Greenwire*, Aug. 20, 2013).

For its sewage sludge rules, EPA relied on a statistical model for variability called the upper prediction limit, or UPL. Environmentalists have claimed that method is inadequate because it can yield standards that are too weak.

In its latest motion earlier this week, EPA acknowledged that it used the same method when it reconsidered its mercury and air toxics rules for new sources earlier this year.

"The numeric standards were set using data sets consisting of six data points or fewer, and in one instance, the UPL methodology resulted in the calculation of a new source MACT standard less stringent than the MACT standard for existing sources," EPA wrote.

EPA's motion is another sign that the sewage sludge incinerator ruling could pose a significant legal problem for the agency. Last week, the agency made a nearly identical motion for a "voluntary remand without vacatur" in a massive lawsuit challenging its air rules for industrial boilers and incinerators (*Greenwire*, March 5).

Environmental groups in both cases support most of EPA's motions, as long their reconsideration includes a public notice and comment period.

Attorney Neil Gormley of Earthjustice, who represents the Sierra Club and other green groups in the cases, said the sewage sludge ruling "demonstrates EPA's standards are too lenient."

"What's important is they hear from the public and that they make a new decision in light of their new analysis, as opposed to patching up the decision *post hoc*," Gormley said.

Click here for the motion.

DEFENSE:

Judge lets veterans' lawsuit on burn pits, dirty water proceed

Jeremy P. Jacobs, E&E reporter

Published: Friday, March 7, 2014

Federal appellate judges ruled yesterday that a large lawsuit brought by military veterans against defense contractors for their management of burn pits and water treatment in Iraq and Afghanistan may move forward.

The decision from the 4th U.S. Circuit Court of Appeals reverses a lower court ruling that said Houston-based KBR Inc. and Halliburton Co. are shielded from the litigation.

Nearly 60 plaintiffs, many of whom are military personnel, have filed lawsuits seeking damages for exposure to hazardous burn pits and contaminated water in Iraq and Afghanistan.

Veterans affairs organizations and public health advocates have claimed that the improper burning of medical waste, asbestos, Styrofoam, metals and other substances led to potentially harmful exposures to carcinogenic air pollution (*Greenwire*, May 5, 2010).

The pits have since led to myriad lawsuits that have resulted in contradicting rulings regarding how to treat the actions of defense contractors in a war zone. KBR claims it is immune from the litigation because it was acting as an arm of the military.

The Richmond, Va.-based court, however, ruled in a 55-page opinion that there was evidence that KBR operated the pits and water treatment plants outside the guidance of the Defense Department.

Further, the panel unanimously held that the law that protects the military from such lawsuits, the Federal Tort Claims Act, doesn't extend to private contractors.

The plaintiffs charge that KBR violated military protocols when it allegedly burned "vast quantities of unsorted waste in enormous open air burn pits with no safety controls," according to court documents.

KBR is facing other similar lawsuits, including one involving the electrocution of a soldier while showering in his Iraq barracks. The company has asked the Supreme Court to take up that case, which deals with legal issues similar to those in the burn pit lawsuits.

The Supreme Court has yet to decide whether it will take the case.

Click here for the opinion.

ETHANOL:

S.D. to use E15 in state vehicles

Amanda Peterka, E&E reporter

Published: Friday, March 7, 2014

South Dakota will use gasoline containing 15 percent ethanol in its state fleet, Gov. Dennis Daugaard (R) announced yesterday.

The state will incorporate E15, a fuel approved by U.S. EPA for use in cars with model years 2001 or newer, into both flex-fuel vehicles and newer non-flex-fuel models on a six-month trial basis. At the end of the trial, the state will evaluate the fuel's performance.

"South Dakota is a large ethanol producer, and our state has significantly benefitted from the ethanol industry," Daugaard said in a statement. "The goal is to use more of our homegrown fuel by using E15, the newest fuel in the marketplace."

The move by South Dakota comes amid lingering concerns raised by the oil industry and some auto manufacturers that increased ethanol use will damage car engines and fuel systems. The status quo in gasoline is 10 percent ethanol, although E15 is slowly being introduced into the market. The fuel is now sold in about 70 gas stations, mostly in the Midwest and Great Plains regions.

In South Dakota, state fleet fueling sites currently provide E10. The new fuel will be sold at four fueling locations throughout the state, including in Pierre, the state capital.

More than half the fleet, or 1,950 vehicles, are flex-fuel vehicles that can handle up to 75 percent ethanol.

Ron Lamberty, senior vice president of South Dakota-based American Coalition for Ethanol, said the state's announcement will support both farmers and the state's $3.8 billion ethanol industry.

"We are confident state employees will find E15 a safe, reliable and affordable fuel choice," Lamberty said in a statement.

NATURAL GAS:

Outrage over pizza 'scandal' puzzles Pa. town

Published: Friday, March 7, 2014

After a natural gas well exploded last month outside a small Pennsylvania town, killing a worker, Chevron Corp. offered locals pizza coupons as an apology, enraging critics.

But residents of Bobtown are focused more on the response from outsiders than at Chevron. In fact, an online petition demanding that the company apologize for the pizza apology has received no signatures from any of Bobtown's 750 residents.

The well explosion Feb. 11 that killed contractor Ian McKee quickly became a lightning rod in the political and environmental debate over the dangers and benefits of natural gas drilling, which has boomed in the United States with the application of hydraulic fracturing. Bobtown residents were surprised to find themselves pulled into the debate over Chevron's seemingly callous response to the explosion.

In fact, many locals said the pizza offer was to apologize for traffic after the explosion, not the explosion itself and McKee's death.

"I thought it was pretty decent of them," said Ray Elli, 54.

There is a range of differing opinions on drilling in the town, Elli said. He also noted that many have handsomely profited from the drilling boom, either through jobs or in millions of dollars in royalties to landowners.

And a majority of Pennsylvanians support the gas industry, according to Terry Madonna, a professor of public affairs at Franklin & Marshall College in Lancaster, Pa.

"I think it's pretty fascinating that folks in the community" aren't openly upset with Chevron, Madonna said (Kevin Begos, Associated Press, March 7). **-- HG**

COAL:

Study raises concerns about dust from trains, increased exports

Manuel Quiñones, E&E reporter

Published: Friday, March 7, 2014

A new study is raising concerns about the environmental and health effects of diesel exhaust from rail traffic and coal dust particles from moving trains.

The study, accepted for publication last week in the peer-reviewed journal *Atmospheric Pollution Research*, was undertaken largely in response to the ongoing debate over coal exports from proposed Pacific Northwest terminals, which would create more rail traffic.

"Our measurements demonstrate that rail traffic emits substantial quantities of diesel exhaust and that the PM 2.5 concentrations are significantly enhanced for residents living close to the rail lines," said the paper.

The researchers, led by University of Washington, Bothell, atmospheric science professor Dan Jaffe, analyzed emissions from rail traffic from two sites in Washington: a home along rail lines in Seattle and near the Columbia River Gorge.

Jaffe received funding for the study from online donations via the website Experiment, formerly known as Microryza, plus a donation from the Sierra Club, both of which are disclosed in the study.

"Our results also show that after passage of coal trains there was a statistically significant enhancement in larger particles, compared to other train types," said the paper. "These larger particles most likely consist of aerosolized coal dust."

Many residents near train tracks worry about trains spewing dust into their communities. Other residents near coal export terminals report dust covering homes and cars.

Exporters say they take measures to suppress dust. And railroads have instituted rules to contour coal shipments and spray them with chemicals to minimize dust.

The Alliance for Northwest Jobs and Exports, a pro-coal export lobby group, said trains release fewer diesel particulates compared to other industrial sources. The alliance also said Jaffe's study did not prove a link between coal dust and air quality.

They are also pointing to comments in which Jaffe apparently downplays the airborne coal dust issue near trains. "That seems to be a nonissue," Jaffe told Quest, a public radio collaboration.

"Dr. Jaffe's study failed to find the smoking gun of coal dust and diesel particulates that it was looking for," said alliance spokeswoman Kathryn Stenger, "but ignores its own findings."

Jaffe was succinct in his response. "From their comments, it seems like they did not read our article very carefully. It also seems to me that this group doesn't understand the scientific process. We collected data, analyzed it and submitted our results to a reputable scientific journal."

He added, "I would encourage anyone who doesn't like the results to conduct their own study and publish the results in a scientific journal. In my opinion, scientific data and the peer-review process are the best way to uncover the truth."

Jaffe's study recommended further research on several aspects of the discussion, including the actual health effects of diesel particles and coal dust.

Separately, environmental groups and other opponents of increased coal exports have questioned the effects of the release of coal from moving trains on water. Federal litigation is ongoing on that front.

AIR POLLUTION:

Ocean could be nighttime smog killer -- study

Published: Friday, March 7, 2014

The ocean may work to clear the air at night, a new study shows.

Researchers at the University of California, San Diego, said in a report in *Proceedings of the National Academy of Sciences* that the sea surface can absorb and remove up to 15 percent of the nitrogen oxides that form smog in coastal cities.

In waters near San Diego, scientists tracked how polluted air blew from the Los Angeles Basin and dissipated into the sea.

Tim Bertram, an atmospheric chemist who conducted the study, said he was surprised to see that instead of reacting with the ocean surface to form new chemical compounds, the nitrogen oxide compounds appeared to be permanently absorbed by the sea.

"As soon as it's lost to the ocean surface, it's gone," he said.

Nearly half the world's population lives within 125 miles from a coast, so most nitrogen oxides are released near the ocean. But Bertram said he needs to conduct further analysis to determine the full extent of air quality benefits (Tony Barboza, *Los Angeles Times*, March 6). -- **JL**

MAINE:

Committee rejects proposed mining rules

Published: Friday, March 7, 2014

A legislative panel controlled by Democrats voted to recommend rejecting proposed rules that would have eased environmental restrictions on metal and mineral mining in Maine.

The Maine Legislature's Environment and Natural Resources Committee voted 7-5 to recommend rejecting the plan, which was put forward by the Maine Board of Environmental Protection and backed by Gov. Paul LePage (R). Environmental groups had strongly opposed the proposal.

The committee's vote recommended that the Department of Environmental Protection redraft the rules and present a new proposal in 2016. The policy recommendation now moves to the full House and state Senate, where it could be changed before being sent to LePage. LePage also could decide to veto the proposal, or a new governor could weigh in if LePage is not re-elected in November.

"We thought the rules were very bad and that this is an appropriate move," said Nick Bennett, a staff scientist for the Natural Resources Council of Maine.

While it has been decades since mining operations were active in Maine, New Brunswick-based J.D. Irving Ltd. has expressed interest in mining at a site known as Bald Mountain where buried metals could be worth as much as $7 billion.

Environmental groups had warned that the state had sought to downplay several studies that showed the Bald Mountain project ran the risk of releasing concentrations of arsenic and sulfur that could lead to drainage releases (*Greenwire*, Oct. 18, 2013).

Business groups have blamed restrictive regulations for limiting interest from mining companies like J.D. Irving (Steve Mistler, *Portland* [Maine] *Press Herald*, March 6). **-- SP**

CHINA:

Beijing adds fuel to ethnic tensions by outsourcing smog

Published: Friday, March 7, 2014

Protests are increasing against China's plan to outsource coastal smog by moving power plants to the country's less populated West, which is inhabited by minorities.

Residents in Oriliq -- predominantly a Uighur village -- say they have suffered from burning throats, dizziness and chronic colds after a $2.1 billion coal-converting power plant was opened nearby in August 2013.

With the help of wooden barricades, a group of 200 villagers blocked the road to the plant for days in mid-January in temperatures as low as minus 4 degrees Fahrenheit to demand the plant's closure.

Power plant shifts to the west and north of the country are partly due to rising pressure from eastern city residents to take action against record levels of pollution.

But for the Turkic-speaking and predominantly Muslim Uighurs, the outsourcing of eastern coal plants only adds fuel to ethnic tensions (Haas/Sanderson, Bloomberg, March 6). **-- JL**

JAPAN:

Swarm of robots comes to aid of crippled nuclear plant

Published: Friday, March 7, 2014

More than a dozen robots have been deployed throughout the leaking Fukushima Daiichi nuclear power plant in Japan, investigating reactor breaches and cleaning up radioactive water.

The technology has been crucial to making the plant's ongoing repair process fast and safe.

Robots are common tools in nuclear plant repairs and decommissions, but they've taken on unprecedented responsibilities at Fukushima given the scale of the damage and high radiation levels. Last year, a camera-toting remote-controlled boat confirmed a water leak for the first time in the No. 1 reactor's containment vessel. Robots now are being prepared to locate and possibly plug the leaks.

All the robots resemble small tanks with two or four wheels wrapped in treads. With all of Fukushima's reactors suffering from different problems, each robot has to perform a unique function. And it hasn't always gone smoothly. Robots have broken and had accidents. One has been lost.

And the machines aren't cheap. Some robots cost upwards of $50 million. The Japanese government has earmarked 88 billion yen ($854 million) for technological development through the next fiscal year. But the technology developers and operators are hopeful the new robots could reduce risk to human workers when repairing or decommissioning aging nuclear plants in the U.S. and Europe (Mari Iwata, *Wall Street Journal*, March 6). **-- HG**

CLIMATEWIRE -- MON., MARCH 10, 2014 -- Read the full edition

1. STATES: Conserving water, cutting greenhouse gases may conflict in drought-parched Southwest

Actions to limit climate change and calls for water conservation are on a potential collision course, some water researchers believe.

2. NATIONS: India's view of climate change shifts toward adaptation, clean energy

Energy Secretary Ernest Moniz arrives in India today for high-level meetings that many hope will help ease recent diplomatic tensions between the two countries, including a spat over renewable energy.

TODAY'S STORIES

3. *SCIENCE: Climate sensitivity to change underestimated in last IPCC report -- study*
4. *POLICY: Kerry directs State Dept. to make climate change a top priority*
5. *EMISSIONS TRADING: Auction change has early success in boosting European CO2 price*
6. *MARKETS: More aggressive carbon cap spurs bidding in latest RGGI auction*
7. *WATER: Climate change may cause spongy algae called 'rock snot' to proliferate -- study*
8. *NEGOTIATIONS: Wide gap appears between China's rhetoric and its bargaining position on 2015 climate pact*
9. *BUSINESS: Australia's carbon tax gets results but still may get canceled*
10. *CLEAN TECH: Are perovskites the future of solar power?*
11. *SPECIES: Dixie's chickadees invade the North*

E&ETV'S ONPOINT

12. *CLIMATE: Clean Air Task Force's Schneider proposes trading plan for existing source rule*

ENERGYWIRE -- MON., MARCH 10, 2014 -- Read the full edition

1. TECHNOLOGY: Hotbed for microgrids grows in 'energy cul-de-sac'

San Diego is at the opposite end of the country from the megacities that were walloped by Superstorm Sandy. But this surf town is becoming known as the leading laboratory for grid technologies that harden communities against blackouts and big weather. At its largest research university, in a lonely desert town and among three Navy bases, an unparalleled set of ventures is blazing new trails on microgrids.

2. ADVOCACY: Ohio community group hopes third time's the charm for anti-fracking measure

YOUNGSTOWN, Ohio -- Susie Beiersdorfer and her fellow members of the community group Frackfree Mahoning Valley will be canvassing neighborhoods, calling registered voters and hosting weekly fundraisers for the Youngstown Community Bill of Rights, a

piece of legislation that would, among other things, prohibit hydraulic fracturing in the Ohio city. The measure has been put to a vote and defeated twice before, but Beiersdorfer has taken to saying, "Three's a charm to prevent the harm."

TOP STORIES

3. *OIL AND GAS: Is Russia's energy leverage on the wane?*
4. *WORKFORCE: Industry still battling 'silver tsunami' in executive leadership -- search firm*

THIS MORNING'S STORIES

5. *OIL MARKETS: Sharp spike in production could depress prices*
6. *OFFSHORE DRILLING: International consortium slapped with $738M fine for gas leaks at megaproject*
7. *OHIO: Utica Shale continues to grow as a gas field -- report*
8. *NATURAL GAS: Begich cites diplomacy in bid to speed Alaska LNG projects*
9. *OIL SANDS: Driller asks for new extraction permit as its bitumen leak continues*
10. *PEOPLE: Oil sands joint venture pulls next CEO from Exxon Mobil*
11. *NATURAL GAS: Gas-to-oil tech coming to a car engine near you*
12. *OIL EXPORTS: Feather-light refining could help BP dodge crude export ban*
13. *PIPELINES: Route concerns hang over Enbridge pipeline replacement in Minn.*
14. *PIPELINES: Regulators OK major Canadian oil line reversal*

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CISD-11-08 (All Industries)

July 5, 2011

SUBJECT: Processing of Hardship Exemptions Requests

Certain EPA regulations include provisions that enable the Agency to grant relief from fuel and emissions standards when a regulated party can demonstrate that compliance would cause severe hardship. As part of its implementation of these regulations, EPA is taking steps to expand public notice of requests for exemption from emissions and fuel quality standards.

Effective immediately, EPA will post all hardship exemption requests under the following regulations to its new hardship exemptions website, found at, *http://www.epa.gov/otaq/regs/hardship-exemptions/hardship.htm* EPA will also post its decision on the web site:

CFR 1039.630
CFR 1039.635
CFR 1068.245
CFR 1068.250
CFR 1068.255
CFR 80.1441(a)(2)
CFR 80.1335

EPA will accept comments for two weeks following posting from interested parties who wish to submit information that EPA may consider in determining whether to grant the request. However, EPA will not post or respond to any comments it receives.

We believe that public notification will enhance EPA's interest in conducting a fair and open process for evaluating requests for hardship exemptions. If you have any questions, please send an e-mail to complianceinfo@epa.gov.

Sincerely,

Karl J. Simon, Director
Compliance and Innovative Strategies Division
Office of Transportation and Air Quality

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OFFICE OF THE
EXECUTIVE SECRETARIAT

May 16, 2018

Administrator Scott Pruitt
Environmental Protection Agency
Office of the Administrator 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Pruitt,

I write to ask for your continued support for the Renewable Fuels Standard (RFS) and request that you urge your congressional colleagues not to implement changes to the program that would harm the biofuels and refinery industries. The RFS is essential to increasing American energy independence and security, promoting economic growth and job creation, and reducing harmful environmental impacts in the City of Mesa, AZ and communities across the nation. As the City prepares to become a producer of advanced biofuels we believe it is crucial that Congress refrain from advancing any legislation that would undermine the RFS.

The City of Mesa is currently exploring a food to energy project that would collect what is considered a waste and turn it into a valuable resource for our community. Converting food waste to energy increases energy independence and security through the production of advanced biofuels by utilizing only local resources. The biofuels produced will provide energy to critical city infrastructure, allowing Mesa to deliver necessary services to our citizens such as wastewater treatment and solid waste collection. In addition to powering critical city services the food to energy project will support additional jobs locally in emerging industries. The use of advanced biofuels will also benefit future generations by generating clean energy, improving air quality, and decreasing the city's environmental footprint.

The City requests that any future legislation regarding the RFS allow projects utilizing food waste and or fats, oils, and grease as a feedstock for anaerobic digestion in municipal wastewater treatment facilities to qualify for D-3 Renewable Identification Numbers (RIN). Under current EPA regulations biogas generated from landfills, municipal wastewater treatment facilities, and municipal solid waste digesters is classified as a D-3 RIN. If food waste is added to a municipal digester all the resulting biogas becomes categorized as a D-5 RIN. If this same material (food waste) was put in a landfill and allowed to breakdown over time, the biogas would be classified as a D-3 RIN. This does not make sense from an environmental and economic standpoint for food and other high strength organic materials to be landfilled as opposed to being treated through anaerobic digestion.

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Additionally, the City opposes any Congressional efforts encouraging EPA to apply a "waiver cap" to drive down the price of RINs as it would significantly reduce the demand for biofuels. Establishing a cap on RINS would replace gallons of manufactured biofuels with paper credits, making it impossible to meet EPA's standards for the 2018 Renewable Volume Obligations (RVOs) and beyond. I also request that action be taken to refrain EPA from using its small refiner economic "hardship" waiver authority until it increases transparency and acts in an impartial manner while doing so. Excess granting of these waivers suppresses commodity prices and undermines the RFS.

The RFS is essential to making projects like the City's food to energy a reality and contributes to the economic success of communities across the U.S., including the City of Mesa, AZ. We respectfully request that you oppose any legislation that would implement changes undermining the RFS.

Thank you for your continued efforts on behalf of our City and our region.

Sincerely,

John Giles
Mayor

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Administrator Scott Pruitt
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ERK-15B 20460

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April 7, 2013

VIA ELECTRONIC FILING

Air and Radiation Docket and Information Center
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Ave. NW.
Washington, DC 20460
ATTN: Docket ID No. EPA–HQ–OAR–2012–0546

Re: Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards; Proposed Rule, 78 Fed. Reg. 9282 (Feb. 7, 2013)

To Whom it May Concern:

The National Biodiesel Board (NBB) appreciates the opportunity to submit the attached comments on the Proposed Rule for the 2013 Renewable Fuel Standards, 78 Fed. Reg. 9282 (Feb. 7, 2013) (referred to herein as "2013 RFS proposal"). The 2013 RFS proposal includes proposed standards for each of the four categories provided in the statute -- Renewable Fuels, Advanced Biofuels, Biomass-based Diesel and Cellulosic Biofuels. In a separate rulemaking, EPA set the Biomass-based Diesel volume for 2013 under Section 211(o)(2)(B)(ii) of the Clean Air Act (CAA), 42 U.S.C. § 7545(o)(2)(B)(ii), at 1.28 billion gallons. This volume is not at issue here, and EPA is only required to provide the percentage that obligated parties must use to determine their obligation. 42 U.S.C. § 7545(o)(3)(B). With respect to the Advanced Biofuel volume, EPA properly is retaining the 2.75 billion gallon *statutory* volume for 2013, despite the proposed reduction in the Cellulosic Biofuel volume under Section 211(o)(7)(D), 42 U.S.C. § 7545(o)(7)(D). There are more than sufficient sources of biodiesel and other advanced biofuels to meet this target. We support and encourage the EPA to finalize the 2013 RFS proposal as expeditiously as possible.

NBB is the national trade association representing the biodiesel industry as the coordinating body for research and development in the United States. Since 1992 when it was founded, NBB has developed into a comprehensive industry association that coordinates and interacts with a broad range of cooperators including industry, government and academia. NBB's membership is comprised of biodiesel producers; state, national and international feedstock and feedstock processor organizations; fuel marketers and distributors; and technology providers.

Congress intended the Renewable Fuel Standard (RFS2) to further incentivize U.S. production and use of Advanced Biofuels, including Biomass-based Diesel. Biodiesel is America's only domestic, commercial-scale Advanced Biofuel, and the U.S. biodiesel industry stands ready to meet the RFS2 requirements. Biodiesel has been a key part of the RFS program since its inception, and with significant capacity already in place, domestic production has been on the rise, bringing economic relief to rural areas, improving the environment, and increasing energy independence and national security. Based on EPA's EMTS data for 2012, the U.S. biodiesel industry produced more than 1 billion gallons for compliance with the RFS2 program. One billion gallons of biodiesel production is estimated to support 64,044 jobs across the country, provide more than $3.2 billion in household income, and contribute more than $6 billion in GDP.[1] With the reinstatement of the tax credit, NBB anticipates substantially more biodiesel volume than the required 1.28 billion gallons of Biomass-based Diesel. NBB appreciates the work that EPA has done to implement the RFS2 program, and believes that the biodiesel industry has responded. We will continue to work with EPA to make the program successful.

While we support EPA's determination that the Advanced Biofuel volume should not be reduced for 2013, NBB also must comment on various issues raised in the 2013 RFS proposal and must address concerns identified by various stakeholders at the public hearing held on March 8, 2013. None of these issues should affect EPA's ability to finalize the standards for 2013 as expeditiously as possible. In brief summary, these issues include the following:

- EPA for the first time has indicated that the statute provides no criteria by which it must decide whether to reduce the statutory volume for Advanced Biofuels under Section 211(o)(7)(D). NBB believes that the statute does provide EPA with procedural and substantive criteria. This issue need not be addressed, however, since EPA has chosen to exercise its discretion not to reduce the volume and EPA has adequately supported that decision. If EPA decides a reduction may be warranted, it must meet the appropriate procedural and substantive requirements in the statute.

- Based on comments at the public hearing, it appears that there may continue to be calls to reduce the Biomass-based Diesel volume for 2013. But, any challenges or requests to reconsider the 1.28 billion gallons for Biomass-based Diesel are outside the scope of this rulemaking, and any such reduction must meet the appropriate procedural and substantive requirements of the statute. In an abundance of caution, however, NBB provides comment on potential claims in Appendix A to the attached comments.

- While EPA requests comment on the potential implications of the so-called blendwall for ethanol use in the United States, any such concerns are insufficient grounds to reduce the Advanced Biofuel volume. The volume mandates are intended to promote

[1] John Urbanchuk, *Economic Impact of Reinstating the Biodiesel Tax Credit through 2013*, at 6 (Nov. 27, 2012).

increased investment in both production capacity and infrastructure. There are ample avenues to use ethanol, and other Advanced Biofuels should not be penalized for the failure of the market to adjust to higher ethanol blends. To the extent there are market constraints, other Advanced Biofuels are available to meet the requirements.

- EPA should issue a proposal to increase the Biomass-based Diesel volume for 2014 and 2015 as soon as possible, and the final RFS standards for 2014 should not include a reduction in the *statutory* Advanced Biofuel volume of 3.75 billion gallons for 2014 if the Cellulosic Biofuel volume must be reduced. In fact, EPA has an opportunity to efficiently set the path forward for Biomass-based Diesel, other Advanced Biofuels, and perhaps all RFS volume requirements by proposing and finalizing a combined 2014 and 2015 volume program prior to October 31, 2013.

- There have been some calls for EPA to adjust the volumes for 2016 and beyond based on the waivers of Cellulosic Biofuel under CAA Section 211(o)(7)(F). Since this requires a regulatory process and EPA has not sought comment, NBB does not provide comments on these requests, except to note that the Advanced Biofuel volume has not been waived and, therefore, any such modifications must be limited to Cellulosic Biofuel.

Each of these issues is further addressed in the attached comments.

We appreciate the opportunity to submit these comments. Please do not hesitate to contact me if you have any questions.

Sincerely,

Vice President of Federal Affairs

COMMENTS OF THE NATIONAL BIODIESEL BOARD ON THE
REGULATION OF FUELS AND FUEL ADDITIVES:
2013 RENEWABLE FUEL STANDARDS; PROPOSED RULE,
78 Fed. Reg. 9282 (Feb. 7, 2013)

Docket ID No. EPA–HQ–OAR–2012–0546

COMMENTS OF THE NATIONAL BIODIESEL BOARD ON THE
REGULATION OF FUELS AND FUEL ADDITIVES:
2013 RENEWABLE FUEL STANDARDS; PROPOSED RULE,
78 Fed. Reg. 9282 (Feb. 7, 2013)

Docket ID No. EPA–HQ–OAR–2012–0546

I. INTRODUCTION

The National Biodiesel Board (NBB) appreciates the opportunity to comment on the Proposed Rule for the 2013 Renewable Fuel Standards, 78 Fed. Reg. 9282 (Feb. 7, 2013) (referred to herein as "2013 RFS proposal"). NBB is the national trade association representing the biodiesel industry, and its members produce, and support the production of, America's first domestic, commercial-scale Advanced Biofuel. The Renewable Fuel Standard (RFS2) program has been extremely successful in promoting the production and use of Advanced Biofuels, including biodiesel. The goals of Congress have been met, improving the rural economy in which these facilities are located, increasing this nation's energy independence and security, and reducing greenhouse gas (GHG) emissions. We appreciate the work of the Environmental Protection Agency (EPA) and specifically the Office of Transportation and Air Quality (OTAQ) team in the ongoing implementation of the renewable fuels program. We support and encourage the EPA to finalize its proposal as expeditiously as possible and implement the full 2.75 billion Advanced Biofuel volume requirement for 2013.

II. EPA IS PROPERLY SETTING THE 2013 ADVANCED BIOFUEL STANDARD BASED ON THE 2.75 BILLION *STATUTORY* VOLUME.

A. EPA is Obligated to Ensure the Statutory Volumes are Met.

In the Energy Independence and Security Act of 2007 (EISA), Congress sought "[t]o move the United States toward greater energy independence and security, [and] to increase the production of clean renewable fuels." Pub. L. No. 110–140, 121 Stat. 1492 (2007). In considering EISA's passage, Congress recognized the "emerging consensus among American citizens and the Congress alike: the nation must move forward aggressively to enhance its energy security." S. Rep. No. 110-65 at 1 (2007). To those ends, the statute expanded the RFS2, substantially increasing the volumes required to be incorporated into transportation fuel in the United States. *See NPRA v. EPA*, 630 F.3d 145, 156 (D.C. Cir. 2010), *reh'g denied*, 643 F.3d 958 (D.C. Cir. 2011), *cert. denied*, 132 S.Ct. 571 (2011). EISA "set forth the *minimum* annual volumes for each year, identified producers and importers of transportation fuel as obligated parties subject to those requirements, and defined transportation fuel to include both gasoline and diesel fuel." *Id.* at 160.

As the D.C. Circuit has found, Congress "directed" EPA "to *ensure* that transportation fuel sold or introduced into commerce in the United States . . ., on an annual average basis,

contains *at least* the applicable volume of renewable fuel, advanced biofuel, cellulosic biofuel, biomass-based diesel" under the statute. *NPRA*, 630 F.3d at 147, 149 n.15 (quoting 42 U.S.C. § 7545(o)(2)(A)(i)) (emphasis added); *see also* 42 U.S.C. § 7545(o)(3)(B). Based on the plain meaning of the word "ensure," the statute requires EPA to "make certain" that the statutory volumes of each type of renewable fuel is sold or introduced into commerce. *NPRA*, 630 F.3d at 153. The requirement that "at least" the applicable volumes be sold signals Congress' "intent that volumes not be reduced, at least not in the first decade of the renewable fuel program." *Id.* at 156. For Advanced Biofuels, Section 211(o)(2) requires *at least 2.75 billion gallons* be sold or introduced into commerce for 2013. 42 U.S.C. § 7545(o)(2)(B)(i)(II). Thus, EPA's obligation is to enforce the *statutory* volumes. These are the goals set by Congress, and continued policy disagreements with those goals are insufficient to override this obligation.

Although EPA has proposed to reduce the Cellulosic Biofuel volume based on its projection of actual production, there is no valid reason to reduce the overall Advanced Biofuel volume. Notwithstanding the claims of obligated parties, the statute and EPA's regulations provide sufficient flexibility to obligated parties to address potential shortfalls through the deficit carryover and RIN rollover provisions, and the waiver authority under CAA Section (o)(7)(D) cannot be used to undermine the purposes of the program -- that is, *promote use and production of renewable fuels.* Congress did not direct EPA to predict actual volumes of Advanced Biofuels or to maintain recent, actual production, but to ensure the volumes required by the statute are met and then some. Clearly, the biodiesel industry has demonstrated it is ready to meet both current and future requirements.

B. EPA Appropriately Determined there are Sufficient Sources of Advanced Biofuels to Meet the Statutory Volume.

Section 7545(o)(7)(D)(i) states that in any year where EPA reduces the applicable volume of cellulosic biofuel, "the Administrator *may* also reduce the applicable volume of renewable fuel and advanced biofuels." 42 U.S.C. § 7545(o)(7)(D)(i) (emphasis added). EPA has properly proposed not to reduce the statutory volume for Advanced Biofuels for 2013:

> After reviewing the projected availability of advanced biofuel volumes from various sources, we have preliminarily determined that it is likely that there will be sufficient volumes available to produce or import this 816 mill gal.[2] Given our estimate of about 150 mill gal of domestic 'other' advanced biofuel, the remaining volume of 666 mill gal would likely need to come from imported sugarcane ethanol and/or biodiesel in excess of 1.28 bill gal. As discussed above, we believe that this volume is achievable

[2] This amount is based on the 2.75 billion gallons minus the 1.92 billion RINs that would be required to meet the 1.28 billion gallon Biomass-based Diesel volume requirement and the proposed 14 million ethanol-equivalent gallon Cellulosic Biofuel volume requirement.

> through a combination of these sources. Therefore, we believe that there is no reason to reduce the required volume of 2.75 bill gal advanced biofuel on the basis of available volumes. As noted above, maintaining the 2.75 bill gal advanced biofuel volume set forth in the statute will result in reduced GHG emissions from the transportation sector and could also contribute to energy security objectives.

78 Fed. Reg. at 9300. The record amply supports EPA's determination. Indeed, even if EPA decides to further reduce Cellulosic Biofuel, there is ample evidence to indicate that the entire Advanced Biofuel volume still can be met.

1. EPA need only determine that there may be volumes available to meet the 2.75 billion gallons not to project actual volumes or define the uncertainties in those projections.

The D.C. Circuit recently upheld EPA's decision not to reduce the applicable volume of renewable fuel and advanced biofuels for 2012. *API v. EPA*, 706 F.3d 474 (D.C. Cir. 2013). For 2012, EPA determined "[b]ased on our assessment of the availability of volumes of advanced biofuel beyond those required to meet the cellulosic biofuel and biomass-based diesel standards, we do not believe that the advanced biofuel standard need be lowered below the 2.0 billion gallon level specified in the Act. Thus, we are not reducing the applicable volume of advanced biofuel for 2012." 77 Fed. Reg. 1320, 1333 (Jan. 9, 2012). The D.C. Circuit upheld EPA's analysis finding that EPA "adequately grounded its determination in historical data on sugarcane ethanol imports and biodiesel production, as well as governmental and non-governmental projections for future production of those fuels." *API*, 706 F.3d at 481 (citing 77 Fed. Reg. at 1331-1337). Thus, EPA need only determine there are sufficient volumes of Advanced Biofuels potentially available to retain the *statutory* volume, notwithstanding a reduced Cellulosic Biofuel production projection.

In particular, the court rejected attempts by the obligated parties to argue that EPA has to project actual production: "Nothing in the text of § 7545(o)(7)(D)(i), or any other applicable provision of the Act, plainly requires EPA to support its decision not to reduce the applicable volume of advanced biofuels with specific numerical projections." *API*, 706 F.3d at 481. Further, the court pointed to EIA's projection of 300 million gallons of sugarcane ethanol imports for 2012 and EPA's estimation of 2.4 billion gallons in U.S. biodiesel production capacity, which it found suggested "that some combination of the two sources of advanced biofuels will be available to make up for the shortfall in cellulosic biofuel." *Id.* "Moreover, in sharp distinction with cellulosic biofuel, there appears to be no great obstacle to the production of advanced biofuel generally; to the extent that estimates in the record are relatively low, that seems to be based on want of a market, which of course continued pressure will tend to solve." *Id.* (citing 77 Fed. Reg. at 1334-1335). The same is true for 2013.

Nonetheless, the 2013 RFS proposal identifies certain "uncertainties" that may affect actual volumes. This is beyond what EPA is required to do under the statute, and undermines the incentives Congress created under the program. While several factors may affect the market price and the fuels actually used to meet the 2.75 billion gallons, these "uncertainties" cannot be used to reduce the statutory mandates envisioned by Congress. Thus, as further described below, these "uncertainties" are irrelevant, and EPA must finalize the standards, as proposed, as soon as possible.

2. There is ample support that biodiesel can significantly contribute to the Advanced Biofuel volume requirement.

In September 2012, EPA set the Biomass-based Diesel volume for 2013 at 1.28 billion gallons.[3] 77 Fed. Reg. 59,458 (Sept. 27, 2012). Based on equivalence values, this represents at least 1.92 billion gallons of Advanced Biofuels. The vast majority of Biomass-based Diesel is biodiesel, and there is "no great obstacle" to production above the 1.28 billion gallons. *API*, 706 F.3d at 481. In fact, if the entire 2.75 billion gallons of Advanced Biofuels were filled by biodiesel only, then approximately 1.83 billion gallons of biodiesel would be required in 2013. Although more than enough biodiesel capacity, feedstock and infrastructure are available to produce this amount, it is more likely that both renewable diesel and sugarcane ethanol (other advanced biofuels) will assist in filling this volume requirement. In 2013, it is estimated that approximately 200 million gallons of renewable diesel and up to 600 million gallons of sugarcane ethanol will be available for RIN generation.[4]

The 2013 RFS proposal estimated that, in October 2012, the aggregate production capacity of biodiesel plants in the United States was over 2.1 billion gallons across 107 facilities. 78 Fed. Reg. at 9296; EIA, Monthly Biodiesel Production Report (Dec. 2012) (EPA-HQ-OAR-2012-0546-0012). EIA reported domestic production capacity has been as high as 2.140 billion gallons. *See* EIA, Monthly Biodiesel Production Report, With Data for January 2013 (Mar. 2013), *available at* http://www.eia.gov/biofuels/biodiesel/production/. This represents over 3 billion RINs (or ethanol-equivalent gallons). This shows more than sufficient capacity to meet the entire 2.75 billion gallon requirement for Advanced Biofuel.

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[3] This volume is not at issue in this proceeding, and any comments seeking to revise or reduce that volume are irrelevant and should be disregarded.

[4] Insights provided by Larry Schafer the Senior Advisor to the National Biodiesel Board, based on conversations with market participants.

The NBB analyzed all EPA registered biodiesel and renewable diesel facilities as of February 8, 2013 and the total registered capacity is more than 4.7 billion gallons[5]:

The Number of EPA Registered Producers = 245

The Number of EPA registered Domestic Producers = 211

The Number of EPA registered Foreign Producers = 34

Total Registered Capacity = 4,717,211,398 gallons per year

Domestic Registered Capacity= 3,220,455,400 gallons per year

Foreign Registered Capacity= 1,496,755,998 gallons per year

There also will be sufficient sources of qualifying renewable biomass to more than meet the needs of the U.S. biodiesel industry in 2013. Soybean remains a significant feedstock for the U.S. biodiesel industry. The USDA recently estimated that 2013 soybean production will exceed the prior record high in 2009, and supply will be the second highest ever. *See* Pete Riley, USDA, Farm Service Agency, *Grains and Oilseeds Outlook: 2013 Agricultural Outlook Forum*, at 14 (Feb. 22, 2013), *available at* http://www.usda.gov/oce/forum/presentations/Riley.pdf. Use of corn oil from ethanol production and of recycled greases has substantially increased since 2010. *See* EIA, Monthly Biodiesel Production Report, With Data for December 2012, Tables 3 and 3a (Feb. 2013) (referred to as "EIA Report"), *available at* http://www.eia.gov/biofuels/biodiesel/production/.[6] The EIA Report also shows that the biodiesel industry was able to increase production in 2012 from 2011, despite using less soybean oil, canola oil and animals fats.[7] Thus, the industry continues to become more efficient, and has increasingly diversified its feedstocks. EPA

[5] See Appendix B, attached to these comments.

[6] An analysis done to assess advancements toward meeting the California low carbon fuel standard and the RFS2 found continued and significant advancements in non-vegetable oil biodiesel production capacity is expected. *See* E2 Environmental Entrepreneurs, *Advanced Biofuel Market Report 2012: Meeting U.S. Fuel Standards* at 6 (2012) (hereinafter "E2 Report") (Attachment 1). It found that expansion has occurred despite various funding and regulatory uncertainties.

[7] This shows the biodiesel industry can adapt to feedstock availability, which shows the concerns of the oleochemical industry that increasing the Advanced Biofuel volume requirement will significantly impact the animal fat market are misplaced. In any event, animal waste and animal by-products are expressly listed as renewable biomass under the statute, and EPA has no authority to restrict or eliminate the use of animal fats as a feedstock option.

recently approved camelina as a feedstock for biodiesel. 78 Fed. Reg. 14,190 (Mar. 5, 2013). Additional feedstocks, such as cottonseed oil, are also available, pending EPA's approval. Moreover, in setting the 1.28 billion gallons, EPA did not include biodiesel from canola oil or other available feedstocks, such as edible tallow, lard, and poultry fats, 77 Fed. Reg. at 59,463 (Table III.B-1), indicating more than ample feedstock will be available to exceed the 1.28 billion gallons already required for Biomass-based Diesel.

As EPA has recognized, "the U.S. biodiesel industry has produced higher volumes when demand for it existed." 76 Fed. Reg. 38,844, 38,856 (July 1, 2011); *see also* 75 Fed. Reg. 76,790, 76,802 (Dec. 9, 2010) ("However, the biodiesel industry has demonstrated that it is capable of meeting historic demand for biodiesel, and is in a position to produce significantly more than it has in recent years."); 77 Fed. Reg. at 59,461. Biodiesel facilities have been able to increase production to meet demand, and idled facilities can come back on-line quickly. Despite doubts raised by obligated parties, from 2010 to 2011, the biodiesel industry was able to increase production by 600 million gallons to over 1 billion gallons, which is still not near total production capacity. 78 Fed. Reg. at 9296-9297; *see also* EPA, *2011 RFS Data* (Table: 2011 RIN Generation and Renewable Fuel Volume Production) (EPA-HQ-OAR-2012-0546-0008).

Indeed, biodiesel production in the United States has exceeded the mandated volumes every year (even accounting for early cases of fraud). In 2011, the biodiesel industry produced more than 250 million additional gallons, over 30% more than the required volume.[8] EPA, *2011 RFS Data* (Table: 2011 RIN Generation and Renewable Fuel Volume Production) (EPA-HQ-OAR-2012-0546-0008). In 2012, EPA EMTS data again shows over 1 billion gallons of biodiesel alone. *See* EPA, *2012 RFS Data*, http://www.epa.gov/otaq/fuels/rfsdata/2012emts.htm (Table: RIN Generation and Renewable Fuel Volume Production by Fuel Type) (current as of Mar. 7, 2013). The production in 2012 occurred even without the tax credit, which was not reinstated until the end of the year.

Although EPA need only consider the availability of biodiesel, EPA also has considered biodiesel distribution and blending infrastructure. But, Congress provided limited waiver authority to EPA, and it rejected consideration of "distribution capacity" as grounds to reduce

[8] EPA also allows that 20% of prior year RINs be used toward compliance. According to EPA's EMTS data (current as of March 7, 2013), there are over 400 million 2012 excess RINs available for use to meet the Advanced Biofuel volume in 2013. *See* EPA, *2012 RFS Data*, http://www.epa.gov/otaq/fuels/rfsdata/2012emts.htm (Table: Available RINs to Date).

the statutory volumes.[9] Indeed, elsewhere in Section 211, Congress included inadequate distribution capacity as potential grounds to waive statutory requirements. *See* 42 U.S.C. § 7545(m)(3).[10] Moreover, one of the purposes of phasing in the mandate is to promote improvements in infrastructure.[11] Indeed, the advances in distribution and blending infrastructure that have taken place further illustrate the benefits of steady increases in the RFS volumes. That obligated parties would prefer not to expend monies to expand the existing infrastructure should not be sufficient to reduce the volume mandates. The entire purpose of the mandate is to push fuels into the current petroleum fuels marketplace. Thus, any potential concerns regarding whether there is sufficient blending or distribution capability cannot support a reduction in the Advanced Biofuel statutory requirement for 2013.

In any event, there are no significant impediments to increased use of biodiesel to meet the overall 2.75 billion gallon requirement. As EPA found in setting the Biomass-based Diesel volume at 1.28 billion gallons for 2013, the blending and distribution infrastructure is available to meet any increased demands. Biodiesel can legally be used in transportation fuel at any blend level, including B100. 77 Fed. Reg. at 59,466. B5 is fungible with diesel fuel. While most use is at a B5 or below level, local and regional markets often use higher blends because biodiesel is currently being sold at a lower price than diesel fuel.[12] Most major engine

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[9] Initial proposals for an RFS program provided similar waiver authority as the program that was enacted except that EPA could consider whether there was inadequate domestic distribution capacity for renewable fuels. *See* S. Rep. No. 108-57 at 7, 76 (2003); *see also, infra* n.34.

[10] As further outlined below, NBB does not agree that Congress gave EPA no guidance or criteria in waiving the Advanced Biofuel volume under Section 211(o)(7)(D).

[11] *See* S. Rep. No. 108-57 at 6 ("This phase-in schedule is essential to the success of the program. The renewable fuels industry must be given an opportunity to ramp-up production capacity and the petroleum industry must be given an opportunity to make adjustments to the refining, supply and distribution system necessary to successfully implement the program."). *See also* S. Rep. No. 110-65 at 2-3.

[12] Biodiesel is lowering the price of diesel fuel for consumers. In recent years, with help from the RFS and the biodiesel tax incentive, biodiesel is generally purchased by fuel distributors at a lower price than petroleum diesel, resulting in estimated consumer savings of $120 million. This is evidenced by the following testimonials:

- Michael Whitney, Love's Travel Stops/Musket Corp.: "Over the course of the past year delivered biodiesel prices have been lower than diesel prices. Accordingly, wholesale marketers of diesel have been able to offer biodiesel blends at the rack at a discount to clear diesel (diesel without biodiesel). These discounts have varied over the course of the year from as little as $0.0025 (1/4 of a cent) to as much as 4-5 cents per gallon."

companies have stated that blends up to B20 will not void their warranties.[13] As EPA has recognized, a substantial number of retail stations offer biodiesel blends above B5. *Id.* Biodiesel is increasingly being used as heating oil as well.

State mandates and other incentives also are in place for the promotion of biodiesel. *See, e.g.,* 77 Fed. Reg. at 59,467. For example, in late 2012, New York City's requirement that all heating oil contain at least 2% biodiesel began. The steady growth of biodiesel use has allowed blending and distribution infrastructure to also increase at a steady pace to meet these demands.[14] This is because the real costs in expanding distribution and blending infrastructure came with the initial increase from 500 million gallons (2009 RFS2 requirement) to 1 billion (2012 RFS2 requirement). Incremental increases result in reduced costs, and benefits will continue to outpace costs. *See* 77 Fed. Reg. at 59,483; *see also* E2 Report at 18. Based on this review, there are no blend wall issues or geographic restrictions that are likely to come into play to limit the use of biodiesel. Thus, any potential concerns regarding blending and distribution infrastructure for the potential increase in demand for biodiesel is immaterial and, regardless, does not warrant reduction of the Advanced Biofuel volume for 2013. The program has operated as intended, and EPA must fully enforce the volumes as envisioned by Congress.

- Carlo Luri, General Manager of Bently Biofuels in Minden, Nev.: "The reason we invested in biofuels in the beginning is that we expected fuel prices to go up long term. When you have a commodity like fuel impacted by so many different things in the world, it's not just the continued escalation of prices, but price volatility. The price of fuel can jump up, but it also can come down just as fast. We have to be able to weather the upturns and the downturns. We've been able to sell biodiesel for less than petroleum for almost a year now."

[13] *See, e.g.,* NBB, *OEM Support* (Sept. 2012), *available at* http://www.biodiesel.org/docs/ffs-engine_manufacturers/oem-warranty-positions.pdf?sfvrsn=12.

[14] Several terminals have reopened or announced expansions and new terminals opened in response to the 2013 Biomass-based Diesel volume and New York heating oil mandates. *See, e.g.,* Gulf Hydrocarbon, *North Houston terminal to reopen for 24/7 biodiesel distribution*, Biodiesel Magazine (Feb. 11, 2013), http://biodieselmagazine.com/articles/8941/north-houston-terminal-to-reopen-for-24-7-biodiesel-distribution; Westmore Fuel Co. Press Release, *Westmore Biodiesel Grand Opening* (Oct. 10, 2012), http://www.westmorefuel.com/westmore-biodiesel-grand-opening.htm; Iowa Biodiesel Board, *Magellan Pipeline adds biodiesel infrastructure to major fuel hub*, Biodiesel Magazine (Sept. 14, 2012), http://biodieselmagazine.com/articles/8700/magellan-pipeline-adds-biodiesel-infrastructure-to-major-fuel-hub.

Moreover, increases in biodiesel use under the Advanced Biofuel mandate provides numerous additional benefits; for example, EPA found that increases in biodiesel volumes "will help to support rural economic growth and job creation, will increase energy security, and reduce emissions of GHGs." 77 Fed. Reg. at 59,483. EPA estimated energy security benefits for the incremental increase of 280 million gallons of biodiesel to be about $41 million ($0.15 per gallon). In addition, NBB estimates that one billion gallons of biodiesel production is estimated to support 64,044 jobs across the country, provide more than $3.2 billion in household income, and contribute more than $6 billion in GDP. *See* John Urbanchuk, *Economic Impact of Reinstating the Biodiesel Tax Credit through 2013*, at 6 (Nov. 27, 2012) (Attachment 2).

3. As confirmed by the D.C. Circuit, EPA need only answer whether sugarcane ethanol is an available source for meeting the Advanced Biofuel volume, which it is.

EPA also found that sugarcane ethanol from Brazil is available to meet the Advanced Biofuel volume. NBB agrees that imported sugarcane ethanol is a significant source of Advanced Biofuel that is available for meeting the RFS2 mandate.

In 2012, EPA determined that there are likely to be sufficient volumes of sugarcane ethanol and Biomass-based Diesel to make up the difference for Cellulosic Biofuel. 77 Fed. Reg. at 1332. For sugarcane ethanol, EPA considered various projections, which ranged from 300 million gallons to 728 million gallons. *Id.* EPA also recognized that ethanol imports averaged 380 million gallons over the prior five years with a high of 730 million gallons in 2006. *Id.* The D.C. Circuit upheld EPA's determination, rejecting, as noted above, claims that EPA had to provide "quantitative specificity." *API*, 706 F.3d at 481. The Court found "especially relevant EIA's projection of 300 million gallons of sugarcane ethanol imports for 2012 and EPA's estimation of 2.4 billion gallons in U.S. biodiesel production capacity." *Id.* (citing 77 Fed. Reg. at 1332, 1334). Projections considered by EPA for 2012 also showed increasing imports in 2013. *See* FAPRI-ISU 2011 World Agricultural Outlook at 117 (2011), *available at* http://www.fapri.iastate.edu/outlook/2011/tables/5_biofuels.pdf.[15] Thus, sugarcane ethanol remains available to show compliance with the Advanced Biofuel requirement for 2013.

Indeed, despite initial low sugarcane ethanol imports at the start of the year, EPA EMTS information indicates that almost 555 million ethanol-equivalent gallons of Advanced Biofuels

[15] More recent data may reflect that the United States is likely to be a net exporter of ethanol, and, thus, it is not clear the level of imports anticipated.

generated RINs under the program and were imported in 2012.[16] *See* EPA, *2012 RFS Data*, http://www.epa.gov/otaq/fuels/rfsdata/2012emts.htm (Table: RIN Generation by Producer Type) (current as of Mar. 7, 2013).[17] EIA data also shows that its 300 million gallon estimate of sugarcane ethanol imports for 2012 was too low. According to EIA data, 11,654 thousand barrels of ethanol were imported into the United States in 2012 (9,606 thousand barrels from Brazil). (See Attachment 3) This amounts to approximately 490 million gallons. *See also* Renewable Fuels Association, *Monthly U.S. Fuel Ethanol Production/Demand*, http://ethanolrfa.org/pages/monthly-fuel-ethanol-production-demand (2012 Monthly U.S. Fuel Ethanol Production/Demand). This was still below the level of imports in 2006 and 2008, before the Advanced Biofuel mandate was in place. While imports may have been lower in 2010 and 2011, Biomass-based Diesel alone met all or most of the Advanced Biofuel requirement for those years. In addition, UNICA data shows that, for the 2012/2013 harvest sugarcane production and anhydrous ethanol production increased from the 2011/2012 harvest. *See* Unica, *Harvest Update, Bi-Weekly Bulletin, Position until Mar. 1, 2013*, at Table 1.

While EPA correctly concludes that there is reason to believe that there will be sufficient volumes of sugarcane ethanol available in 2013, EPA incorrectly states that "666 mill gal of imported sugarcane ethanol would be needed to fulfill the advanced biofuel requirement of 2.75 bill gal." 78 Fed. Reg. at 9285. As noted, the D.C. Circuit held that "[n]othing in the text of § 7545(o)(7)(D)(i), or any other applicable provision of the Act, plainly requires EPA to support its decision not to reduce the applicable volume of advanced biofuels with specific numerical projections." *API*, 706 F.3d at 481. Thus, it is clear that sugarcane ethanol remains a viable source of Advanced Biofuels for the United States.

With the other sources of Advanced Biofuels available, this is sufficient basis to retain the statutory volume requirement of 2.75 billion gallons for Advanced Biofuels, even if there is some "uncertainty" as to whether actual imports will be 666 million gallons. Indeed, NBB believes significantly less than 666 million gallons of sugarcane ethanol will actually be required

[16] The lower imports in the beginning of the year may be due to the later harvest season for sugar, resulting in the bulk of supplies for export being available in the second half of the calendar year. Increased imports may also be due to the California low carbon fuel standard, which has provided incentives to increase imports of sugarcane ethanol.

[17] Over 582 million D5 RINs were generated for ethanol. *See* EPA, *2012 RFS Data*, http://www.epa.gov/otaq/fuels/rfsdata/2012emts.htm (Table: RIN Generation and Renewable Fuel Volume Production by Fuel Type) (current as of Mar. 7, 2013).

after accounting for prior-year RINs.[18] Also, the higher equivalence value and the reinstatement of the tax credit are likely to make biodiesel more attractive in 2013 than sugarcane ethanol imports. Additional imports may be likely to collect RINs for use in 2014. In any event, the statute already provides the flexibility needed to address potential shortfalls in allowing the carrying of a deficit.

4. EPA also recognized that other sources of Advanced Biofuels are available.

EPA "projected that domestic advanced biofuels are expected to grow steadily through 2013, and would include renewable diesel that does not qualify to be biomass-based diesel, heating oil, biogas used as CNG, and ethanol." 78 Fed. Reg. at 9285. Although EPA is not required to project how much actual volumes will be available, *API*, 706 F.3d at 481, it has estimated at least 150 million ethanol-equivalent gallons of domestically produced "other" advanced biofuels. Again, it is sufficient that these other biofuels are available. EPA need not specifically determine how much will be available for 2013.

As an initial matter, according to EPA EMTS data, biodiesel production alone exceeded the 1 billion Biomass-based Diesel requirement for 2012, and, as outlined above, can meet and exceed the entire 1.28 billion gallon requirement for 2013. Moreover, several types of renewable diesel have higher equivalence values than biodiesel, resulting in additional ethanol-equivalent volumes that can be applied toward the Advanced Biofuel requirement. In short, any renewable diesel production is likely to be in excess of the Biomass-based Diesel requirement.

Second, although EPA is not required to project a particular volume, there is ample evidence that renewable diesel production will continue to increase and contribute to the Advanced Biofuel requirement. Production of renewable diesel meeting the definition of Biomass-based Diesel has substantially increased since the RFS2 program was implemented. In 2010, EPA EMTS data showed less than 2 million D4 RINs and 12.7 million D5 RINs for non-ester renewable diesel.[19] In 2011, this number substantially increased to around 75 million D4 RINs and 27 million D5 RINs generated, and again substantially increased in 2012 to over 150 million

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[18] EPA indicates that the "recent reinstatement of the biodiesel tax credit introduced uncertainty around those projections." 78 Fed. Reg. at 9286. Thus, EPA recognizes that there may be more biodiesel produced than the required 1.28 billion gallons. This, however, is not "uncertainty," but merely illustrates why EPA need not identify a particular "projection" of how much sugarcane ethanol will be imported.

[19] This volume was for only half the year because the RFS2 program began July 1, 2010.

D4 RINs and over 20 million D5 RINs.[20] EPA has also approved additional company-specific pathways for renewable diesel. Advanced Biofuel RINs have also been generated for heating oil and biogas. In 2012, EPA approved certain production of ethanol from grain sorghum as Advanced Biofuels. 77 Fed. Reg. 74,592 (Dec. 17, 2012).

5. Additional pathways are being considered by EPA, and EPA should seek to expedite its consideration of new feedstocks for biodiesel.

NBB appreciates the work EPA has done to consider additional pathways for biodiesel. However, there are several petitions that have been pending for some time, including for feedstocks that are not primary agricultural products and thus, do not influence land use decisions. We encourage EPA to act more quickly and transparently on new pathways.

Ensuring a market for continued advancement and development of the domestic biodiesel industry is the purpose of the RFS2 program. *See, e.g.,* S. Rep. No. 110-65 at 2 ("As the nation's reliance on foreign supplies of petroleum has grown, so too has the need for federal policies that promote new technologies and more efficient use of energy, tap the potential for home-grown biofuels, and nurture America's talent for innovation. Such policies reinforce the security objectives of the United States, are consistent with principles of environmental stewardship, and hold the promise of new job-creation and enhanced competitiveness in an increasingly global economy."). Diversifying feedstocks beyond corn promotes regional diversity in biofuels and "spread[s] economic benefits to rural communities across the country and relieving pressure on corn commodity prices." *Id.* at 3. The expansion of the RFS and incentives for the diversification of feedstocks would address challenges to increasing use of renewable fuels, including providing incentives for investment in infrastructure. *See* 153 Cong. Rec. S7426-02, S7427 (June 11, 2007) (Sen. Bingaman). Thus, while the volume mandates are there, EPA must act more quickly to approve new feedstocks and new pathways to reward investment and innovation.

It also has been argued that retaining the Advanced Biofuel volume at 2.75 billion gallons for 2013 allows for the expansion of "food-based biofuels." As an initial matter, biodiesel is not a "food-based biofuel." Biodiesel uses secondary products from agricultural production (e.g., oil and animal fats) or waste products. Second, the mandate is required to ensure continued investment in new feedstocks, and EPA has determined that the approved feedstocks meet the 50% GHG reduction requirement. EPA has no authority to then exclude or

[20] While NBB agrees that Congress sought to increase domestic production of biofuels, it is unclear the extent to which the renewable diesel was domestically produced. In any event, EPA did not consider the potential for increased imports of renewable diesel, which may also be available in 2013.

reduce the ability of these fuels to participate in the program by reducing the statutory volumes. EPA has also found that total cropland in the United States is well below the 2007 baseline.[21] 78 Fed. Reg. at 9287. There is no empirical evidence that biodiesel production adversely affects food production or prices, and EPA has determined that biodiesel production has, in fact, reduced costs for soybean meal. 77 Fed. Reg. 70,752, 70,770 (Nov. 27, 2012). Finally, the increased mandate has allowed for a substantial expansion of use of waste oils and greases, precisely the effect that the program was intended to have. By creating uncertainty every year in whether EPA will retain or not retain the Advanced Biofuel volumes, investors will become more wary of investing in new feedstocks, such as algae. Thus, any calls to reduce the "food-based biofuel" mandate is simply outside EPA's authority, and undermines the purposes of the program.

C. While EPA Should Not Delay in Finalizing the 2013 Standards for the Entire Year, EPA Must Reject Any Calls to Reduce or Prospectively Apply the 2013 Volume Mandates.

NBB agrees with the comments of various speakers at the public hearing that EPA should finalize the 2013 RFS as soon as possible. Market certainty is better served if EPA meets its statutory deadlines. NBB rejects, however, any suggestion that EPA should not fully implement the required volumes for 2013 simply because it did not finalize the standards under Section 211(o)(3) before January 1, 2013. In particular, the Biomass-based Diesel volume has been final since September of 2012, and nothing in EPA's final determination would impact that requirement.

First, there is no authority for EPA to decline to implement the 2013 volumes in full simply because it did not finalize the standards prior to January 1, 2013. Because the suggestion is being raised in comments and the D.C. Circuit has already rejected similar claims questioning EPA's authority to set the standards after the statutory deadline,[22] the only authority for such a request is under the waiver provisions. *See NPRA v. EPA, supra*. Submitting comments on EPA's proposal does not meet the substantive or procedural requirements of the statute to grant such a waiver.

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[21] EPA's aggregate compliance approach has not been reopened by this proposal.

[22] EPA's proposal is solely focused on EPA's authority under Section 211(o)(7)(D). EPA did not request comments on whether it should only apply the standards prospectively. Obligated parties should not be allowed to continue to question EPA's timing of its decisions. Moreover, the only recourse for the obligated parties is to file a deadline suit under the CAA's citizen suit provision in the District Court. 42 U.S.C. § 7604. The obligated parties have not provided any notice to EPA regarding such suit, and, thus, these requests must be rejected.

Second, these requests are based on the assumption that EPA's final determination constitutes a "retroactive" application of the renewable volume obligations. For the reasons outlined by NBB in *NPRA v. EPA*, NBB does not believe that the imposition of standards applicable to the entire year renders EPA's final decision retroactive rulemaking.[23] The final "rule" here is merely a translation of the volume requirement into a percentage of the gasoline and diesel fuel expected to be sold.[24] A showing of compliance with these requirements is not due until February 28, 2014.

Third, D.C. Circuit precedent establishes that EPA must, as required by statute, ensure the volumes for calendar year 2013 are met. While the statute required EPA to issue its percentage standards by November 2012 for calendar year 2013, in *NPRA v. EPA* the D.C. Circuit upheld EPA's authority to ensure the entire calendar year volumes as outlined in the statute are met. The Court specifically recognized EPA's authority to act after the statutory deadline has passed. 630 F.3d at 155-57. The statute imposes the requirements here, and the November 30 date is not critical to implementing the statutory volumes. Separately, the statute imposes on EPA the authority to ensure the volumes are met, including ensuring compliance regardless of when its regulations are promulgated. 42 U.S.C. § 7545(o)(2). The requirement to translate the volumes into a percentage standard does not confer the authority to ensure the volumes are met. It only provides a mechanism to implement the volumes. Thus, the authorization to ensure the 2013 volumes are met is not affected by EPA's failure to issue the standards by November of 2012. The D.C. Circuit recognized that the Congress' purpose in expanding the renewable fuel program under the EISA is "better served" by ensuring the volumes are met. *NPRA*, 630 F.3d at 155-57.

Finally, while the Court declined to definitively determine whether EPA's delayed implementation of the 2010 standards was "retroactive," the Court recognized that EPA has authority under the statute to impose a standard that may have retroactive effects. *NPRA*, 630 F.3d at 158-63. As described above, the final determination in this case is not "retroactive" rulemaking. Nonetheless, the rationale for why the setting of the 2013 standards is not impermissibly retroactive here is even more compelling than was the case for 2009 and 2010 when EPA had yet to identify the fuels that would be eligible under the program. The concerns

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[23] NBB incorporates by reference its brief, opposition to petition for rehearing, and opposition to petition for certiorari filed with respect to *NPRA v. EPA*. These filings are attached as part of its comments.

[24] The Administrative Procedure Act is of limited application here. Section 307(d) of the CAA outlines the requirements for the promulgation or revision of any regulation pertaining to any fuel or fuel additive under Section 211 of the Act. 42 U.S.C. § 7607(d).

raised by obligated parties with respect to the 2009/2010 rule are simply not relevant today. The RFS2 program has now been in effect for 3 years, and the statutory volumes were clearly identified to the obligated parties well before January 2013. While EPA continues to approve additional fuels, EPA has approved numerous pathways, particularly those that make up the vast majority of the required volumes (i.e., ethanol and biodiesel), and RINs are being generated. The only real open question is how many Cellulosic Biofuel RINs would be required. This volume is based on projected production for the entire year, and waiver credits will be available at the end of the year if EPA's projection is incorrect. Also, it only benefits obligated parties to purchase RINs even before EPA finalizes the required volume, as excess RINs generated in 2013 can be used next year. Finally, any delay by EPA is largely for the benefit of the obligated parties, and, in fact, likely occurred as a result of delayed litigation brought by the obligated parties.[25] The statute does not require notice and comment when setting the percentages, but EPA has chosen to provide for notice and comment on setting the percentages under Section 211(o)(3) to implement the Cellulosic Biofuel waiver provision under Section 211(o)(7)(D). This approach has never been disputed by the obligated parties.[26]

III. CONTRARY TO EPA'S ASSERTIONS, CONGRESS DID GIVE EPA DIRECTION ON WHEN IT CAN REDUCE THE STATUTORY VOLUMES.

A. While EPA has Discretion to Retain the Volumes, its Authority to Reduce the Statutory Volumes, even under Section 211(o)(7)(D), is constrained.

Although not required by statute to set the percentage standards under Section 211(o)(3), the annual rulemaking undertaken by EPA was intended to give EPA more

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[25] Unlike for 2009/2010, the obligated parties did not seek expedited review of the 2011 or 2012 standards.

[26] EPA has also determined that the setting of the percentages is a "significant regulatory action" because it raises novel legal or policy issues, requiring review by the Office of Management and Budget (OMB) under Executive Orders 12866 and 13563. NBB is concerned by any further delay as a result of OMB review. The proposal sat at OMB for 6 months before it could be published. With the D.C. Circuit's decision and EPA's clear statutory mandate, there is no reason for EPA's final determination to be so delayed. The Executive Order cannot be used to delay implementation of the statutory requirements for Biomass-based Diesel, Advanced Biofuel or the overall Renewable Fuel Standard. *In re Paralyzed Veterans of America*, 392 Fed. Appx. 858, 860 (Fed. Cir. 2010) (finding agency had no discretion to delay issuance of regulation from statutory deadline pending OMB review under Executive Order 12866) (citation omitted); 58 Fed. Reg. 51,735 (Oct. 4, 1993) ("Nothing in this order shall be construed as displacing the agencies' authorities or responsibilities, as authorized by law."); 76 Fed. Reg. 3821, 3821 (Jan. 21, 2011). The orders must be implemented consistent with applicable law.

information to better estimate production of cellulosic biofuel. 76 Fed. Reg. at 38,846. For Cellulosic Biofuel, a waiver is required if the projected volume of cellulosic biofuel production for the next year is less than the minimum applicable volume required by the statute for that year. 42 U.S.C. §7545(o)(7)(D). In the event the mandate is reduced, the statute provides that EPA "may also reduce the applicable volume of renewable fuel and advanced biofuels requirement" by the same or a lesser volume of the waived amount. 42 U.S.C. §7545(o)(7)(D). While NBB does not dispute EPA's efforts to obtain more information regarding cellulosic biofuel production, it believes that EPA should *promote* production of Advanced Biofuels (and investment therein) and, thus, the notice should be limited solely to comments to help EPA better assess potential volumes in issuing the standards in November. This process should not be used by obligated parties to continue to question a clear policy choice by Congress.

EPA correctly states that it has discretion in determining whether the Advanced Biofuel volume should be reduced in light of the reduced Cellulosic Biofuel volume. EPA, however, then states that the statute "provides no explicit criteria or direction for making this determination." 78 Fed. Reg. at 9285. But Congress did provide criteria for reducing volumes, which includes substantive and procedural requirements that illustrate the limited authority Congress intended to convey on EPA to reduce the volumes. In any event, EPA has declined to reduce the Advanced Biofuel volume, and thus these issues need not delay issuing the final standards.

Any waiver of the overall annual requirement for Advanced Biofuels or Renewable Fuels must still comply with the general criteria in Section 211(o)(7)(A). *See* NBB Comments on RFS2 Proposed Rule, at 48-49 (EPA-HQ-OAR-2005-0161-2249).[27] EPA's response to NBB comments on this issue on the 2010 proposed standards only indicated that, while it was waiving a portion of the Cellulosic Biofuel standard for 2010, it was not adjusting the other standards. Response to Comments at 3-255 (EPA-HQ-OAR-2005-0161-3188). Although EPA is now claiming that the general waiver authority under Section 211(o)(7)(A) is "different" from the authority under Section 211(o)(7)(D), the criteria for reducing the Renewable Fuel and Advanced Biofuel volumes is provided in Section 211(o)(7)(A). Reading the provision as a whole indicates that EPA must consider whether there is inadequate domestic supply of Advanced Biofuels or Renewable Fuels or whether another criteria consistent with Section 211(o)(7)(A) is met.[28] *See New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008) (finding more specific provision related to

[27] These comments are incorporated by reference herein. *See also* NBB Comments on 2011 and 2012 RFS proposed rule, which are incorporated by reference herein (EPA-HQ-OAR-2010-0133-0070; EPA-HQ-OAR-2010-0133-0159).

[28] The reference to "domestic supply" includes not only biofuels produced domestically, but all biofuels supplied to the domestic market, including those produced overseas and imported here. Moreover, EPA has recognized it retains the authority to deny a waiver even if the conditions under Section 211(o)(7)(A) can be shown.

regulation of electric utilities under CAA Section 112(n) did not override more general provisions governing delisting of sources). There is no indication that the "may" in Section 211(o)(7)(D) overrides the criteria for a waiver of the Advanced Biofuel or overall Renewable Fuel standard in Section 211(o)(7)(A).[29] In fact, because they are nested standards, the provision merely makes clear that a reduction of the Cellulosic Biofuel volume does not automatically reduce the Advanced Biofuel or Renewable Fuel volumes. In other words, "may" simply refutes the idea that EPA "must" reduce these volumes. Thus, given the purpose of the statute, and taking the provision as a whole, the "may" here does not expand EPA's authority to waive the Advanced Biofuel or the Renewable Fuel volumes solely on the basis that EPA may have reduced the Cellulosic Biofuel volume. *See Ethyl Corp.*, 51 F.3d at 1059-60 (finding use of "may" did not broaden EPA's discretion to ignore conditions placed on EPA's authority by statute, but only referred to EPA's "decision whether to act or not").

In particular, NBB is concerned that EPA's proposal indicates that EPA may reduce the Advanced Biofuel volume to set the final standards based on comments submitted by the public. This would wholly undermine the protections Congress placed to ensure the statutory volumes are met, including the requirements to seek public comment and to consult with the Departments of Energy and Agriculture. To be meaningful, and in line with the CAA requirements, the public should know *in the proposal* the alleged grounds for reducing the volumes, so that it may adequately comment on why such reductions are not warranted.[30]

At a minimum, the factors identified in Section 211(o)(7)(A) should provide guidance to EPA's decision. As such, the statute clearly supports EPA's finding that "if we determined that sufficient Biomass-based Diesel was available, we could decide that the required volume of advanced biofuel need not be lowered, or that it should be lowered to a smaller degree than the required cellulosic biofuel volume." 74 Fed. Reg. 24,904, 24,914 (May 26, 2009); *see also* 75 Fed. Reg. at 76,792; 76 Fed. Reg. at 38,847, 38,853. As EPA has found, again and again, if other Advanced Biofuels are available, they should be allowed to make up the waived amount of Cellulosic Biofuel. EPA reiterates this in the 2013 RFS proposal: "However, in general we believe that it would not be consistent with the energy security and greenhouse gas reduction goals of the statute to reduce the applicable volume of advanced biofuel set forth in the statute if there are sufficient volumes of advanced biofuels available, even if those volumes do not include the amount of cellulosic biofuel that Congress may have desired." 78 Fed. Reg. at 9295. This is consistent with the criteria in Section 211(o)(7)(A), and would ensure that the GHG

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[29] A delegation of power cannot be presumed "merely because Congress has not expressly withheld such power." *Ethyl Corp. v. EPA*, 51 F.3d 1053, 1060 (D.C. Cir. 1995).

[30] Even if public comments supported a reduction of the Advanced Biofuel volume, a final rule based on a new analysis would not be a logical outgrowth of the proposal. *Envtl. Integrity Project v. EPA*, 425 F.3d 992, 998 (D.C. Cir. 2005) ("Whatever a 'logical outgrowth' of this proposal may include, it certainly does not include the Agency's decision to repudiate its proposed interpretation and adopt its inverse.").

emission reductions sought by Congress are still met, and the mandated volumes are sold, while giving the Cellulosic Biofuel industry time to continue to develop. Further, EPA and the D.C. Circuit have recognized that the statute requires "at least" the statutory listed volumes are met, thus, EPA should, and must, implement the program to *promote* renewable fuel use. As EPA recognizes, "the purpose of setting a mandate is to stimulate more rapid increases in the rate of production" than may occur absent such mandate. 76 Fed. Reg. at 38,853. Thus, EPA should clarify that its reference to "[n]o other criteria specified" was merely intended to indicate its discretion to retain the full volumes, not to indicate it had unfettered discretion and could subsequently decide to reduce the volumes based on comments submitted.

B. EPA Cannot Change Course in the Final Rulemaking Without Providing the Public a Meaningful Opportunity to Comment.

Even if it could be argued that Congress gave EPA no express criteria, EPA's discretion to reduce advanced biofuel volume is not unlimited. As described above, the limited circumstances allowing EPA to issue a waiver illustrates Congress' intent to cabin EPA's authority. In addition, EPA has already identified criteria and provides no reasoned explanation to change such criteria:

> Moreover, our authority to lower the advanced biofuel and/or total renewable fuel applicable volumes is discretionary, and we believe that actions to lower these volumes should only be taken if it appears that insufficient volumes of qualifying biofuel can be made available, based on such circumstances as insufficient production capacity, insufficient feedstocks, competing markets, constrained infrastructure, or the like.

75 Fed. Reg. at 76,799. As described above, there are no such constraints for Advanced Biofuels.

This is the approach EPA has taken to date, and it cannot suddenly change course and reduce the volumes without a reasoned explanation. *FCC v. Fox Television Stations, Inc.*, 129 S. Ct. 1800, 1811 (2009); *Greater Boston Television Corp. v. FCC*, 444 F.2d 841, 852 (D.C. Cir. 1970). Such explanation should be open to the public for review and comment. *Weyerhaeuser Co. v. Costle*, 590 F.2d 1011, 1028 (D.C. Cir. 1978) (Court will defer to agency "so long as we are assured that its promulgation process as a whole and in each of its major aspects provides a degree of public awareness, understanding, and participation commensurate with the complexity and intrusiveness of the resulting regulations.") (citations omitted).

C. EPA Cannot Waive Any Part of the Volume Requirement By Claiming an Exemption for Small Refineries.

Although EPA indicates that it has not granted any exemptions for small refineries or small refiners for 2013 and, thus, the 2013 volumes do not adjust for any small refiners/refineries, EPA nonetheless leaves open the possibility that entities can still seek such exemptions for 2013. 78 Fed. Reg. at 9303. EPA also requests comment "whether it is appropriate for the agency to make changes to the 2013 volumes if small refiner exemptions are granted after the final rule is issued." *Id.* As NBB explained in response to the 2011 and 2012 RFS proposals, if additional petitions are submitted after finalizing the standards, EPA cannot grant any additional exemptions without adjusting the obligated parties' renewable volume obligations. Any such action would circumvent the waiver provisions of the statute and be unlawful.[31]

Small refineries were granted temporary exemptions from the RFS program until December 31, 2010. 42 U.S.C. § 7545(o)(9)(A). DOE was tasked with conducting a study for EPA by December 31, 2008 to determine whether the RFS would impose a disproportionate economic hardship on small refineries. *Id.* If DOE found a disproportionate economic hardship, EPA was to extend the "temporary" exemption for not less than two additional years. However, the statute provides for a one time extension, not an ongoing ability to seek relief. Moreover, while the statute allows a small refinery to petition EPA "at any time" for such an extension, which must be acted on within 90 days, 42 U.S.C. § 7545(o)(9)(B), nothing in the provisions related to small refineries gives EPA authority to waive the statutory volumes to allow any extensions or to decline to adjust the RFS to, as required by statute, "ensure" the required volumes are met in the event of such a grant. *Id.* § 7545(o)(2)(A)(i). The exemption gives small refineries additional time to prepare for the requirements, not to come in years later and seek relief. EPA simply has no authority to waive the statutory volumes mid-year to account for the grant of any petitions. Any waiver must comply with Section 211(o)(7). Further, it is clear that Congress did not intend for small refineries to enter in and out of the program, even in the face of subsequent economic distress.[32] The statute provides for an

[31] Although EPA essentially waived approximately 2.5% of the statutory volumes of the RFS for 2011 based on its grant of small refiner/refinery exemptions without making any such adjustment, EPA is expressly reopening its determination. Moreover, EPA does not provide the public with adequate notice as to when it approves such exemptions, giving injured parties no ability to determine when it may have standing to challenge such a reduction.

[32] The 2011 DOE revised study notes that "EPA has concluded that it did not have the authority to extend the duration of the exemption period for all of the small refiners as defined under the original RFS rulemaking, but only those statutorily defined in EPAct 2005." EPA-HQ-OAR-2012-0546-0003 at vi n.2. To the extent EPA believes it can reduce the volumes mid-year through exemptions to small refineries, NBB agrees that EPA cannot give similar relief to small refiners for which no such exemption was provided under the statute or even considered by DOE.

"extension" of the exemption for at least two years. 42 U.S.C. § 7545(o)(9)(A)(ii). EPA's own regulations indicate that the small refinery may seek "an extension of its small refinery exemption," not a new exemption once it has entered the RFS program. 40 C.F.R. § 80.1441(e)(2).

Even if EPA had authority to continue to grant exemptions for small refineries, EPA's determination that it could grant exemptions anew and do so mid-year is arbitrary and capricious because alternative remedies are available that are consistent with the statute and purpose of the program. With the proposed rule, small refineries are now well aware of their potential obligations under the RFS. They have ample opportunity to submit a petition to EPA requesting an exemption. Moreover, EPA's regulations must contain compliance provisions to ensure the statutory volumes are met, and, thus, EPA has authority to limit when and how small refineries can seek exemption from the program. 42 U.S.C. §7545(o)(2)(A)(iii). Instead, EPA states that "we encourage" the filing of a petition. As an incentive to file petitions in time to be considered as part of the standard setting process, EPA could impose the exemption prospectively only, starting January 1 of the next applicable year, and allow the small refinery to carry the deficit over and give the small refinery two years to comply. EPA cannot simply waive away that obligated volume of renewable fuel.

IV. ANY CLAIMED "UNCERTAINTY" IN ACTUAL VOLUMES OF ADVANCED BIOFUELS THAT MAY BE AVAILABLE IS IMMATERIAL.

It bears repeating, the D.C. Circuit rejected claims that EPA must provide specific numerical projections regarding the total volumes of Advanced Biofuels expected to be produced or imported to meet the volume mandate, upholding EPA's determination that a reduction in the Advanced Biofuel volume for 2012 was not warranted based on its consideration of potential sources of supply. For 2013, EPA, nonetheless, raises a host of issues that indicate an alleged "uncertainty" in the actual amount of imports and the actual amount of production. As long as EPA's determination is adequately supported, which it is, none of these claims is relevant where the purpose of the statute is to *spur* action. The purpose of the RFS2 program is not merely to keep the status quo. While the D.C. Circuit found EPA was required to provide a more neutral analysis when projecting Cellulosic Biofuel volumes under Section 211(o)(7)(D), it found no such requirement with respect to the overall Advanced Biofuel volume. Thus, none of these issues need delay EPA's determination on the final standards. Regardless, none of these issues seriously calls into question to the potential for the Advanced Biofuels industry to meet the 2.75 billion gallon requirement.

A. Any Alleged Uncertainties in the Actual Imports of Sugarcane Ethanol Are Inadequate to Support A Reduction in the Advanced Biofuel volume.

Despite appropriately finding that sugarcane ethanol is an available source of Advanced Biofuels for 2013 as described above, EPA nonetheless seeks comments on various alleged "uncertainties" in the volumes of Brazilian sugarcane ethanol that could be imported into the

United States. None of these alleged uncertainties can support a reduction in the Advanced Biofuel volumes. The uncertainties largely relate to speculation as to events that *may* occur and *may* affect the supply and demand. One can speculate as there are many things that could impact production, but such "uncertainties" are always present in the marketplace and the marketplace continues to adjust. Moreover, EPA does not adequately explain what the uncertainty it is referring to or what potential shortfall may be attributed to these uncertainties. In any event, the mandate established by Congress was intended to address these uncertainties for the biofuel industry and promote continued investment. Thus, these "uncertainties," while possibly an interesting exercise to contemplate, are immaterial to EPA's consideration here, and it would be arbitrary, if not beyond EPA's authority, to even consider a reduction in the Advanced Biofuel volume based on such speculation.

First, EPA cites to the "potential" for increased domestic demand in Brazil if the 25% biofuel blending requirement is reinstated. 78 Fed. Reg. at 9286. But, the purpose of a mandate is to drive demand in the United States. As is the case with Brazil's own mandate, the RFS2 program is intended to create a stable market. Nowhere does the statute require EPA to determine and analyze government policies or predict the future market in Brazil. Second, EPA refers to the "possibility of poor sugarcane crop yields." *Id.* at 9285. But, EPA recognizes that "most projections" indicate a better harvest for 2013, and "sufficient sugarcane ethanol" for imports into the United States. *Id.* at 9285-9286; *see also id.* at 9298. Moreover, with the additional market in the United States, Brazilian interests may again replant existing fields that economic constraints may have prevented. *Id.* at 9298. This additional market gives incentives to maintain and improve production. Finally, EPA references the reduced imports into the United States in 2011 and the "two-way trade." As EPA recognized for the 2012 RFS, imports have varied, but prior years indicate Brazil can provide more than 666 million gallons of sugarcane ethanol to the United States. Imports/exports respond to demand.[33] Sugarcane ethanol imports substantially increased in the end of 2012, and have remained relatively high

[33] EPA also references increased exports of corn ethanol to Brazil, noting that this "engenders additional transport related emissions." 78 Fed. Reg. at 9299. It is inexplicable how this relates to EPA's determination. Congress expressed a policy decision to promote use of Advanced Biofuels *in the United States*, which by definition have 30% greater reductions in GHG emissions, and GHG emissions from the transport of imported fuel is already included in the lifecycle analysis. That Congress sought to move this country toward advanced biofuels is evidenced by the program's capping of the minimum amount of conventional biofuels required at 15 billion gallons. Moreover, U.S. exports of renewable fuel, like the so-called global rebound effect, are beyond the impacts Congress sought to include in the lifecycle analysis.

for the beginning of 2013. Thus, more recent trends show an increase in imports of sugarcane ethanol.

While all indications are that ethanol production and imports from Brazil will be higher than 2012, EPA nonetheless falsely states that an estimate of 500 million gallons based on continuation of existing weather conditions "is well short of the 666 mill gal that would be needed." 78 Fed. Reg. at 9299. Again, EPA need not have assurances that this actual amount is imported. While the alleged "shortfall" for 2012 due to the reduced Cellulosic Biofuel volume was 490 million gallons, the D.C. Circuit found particularly compelling the 300 million gallon estimate. The D.C. Circuit, therefore, recognized that these are estimates, and precision is not required. Indeed, as noted above, the 300 million gallon estimate was significantly lower than actual imports. The market responds to demand.

B. The Potential for an Ethanol Blendwall Is Immaterial to Ensuring the Statutory Advanced Biofuel Volumes are Fully Implemented.

EPA also discusses the so-called ethanol blendwall. Although finding that demand for physical gallons of ethanol in 2013 "will be significantly less than the E10 saturation point," EPA requests comment on whether the blendwall presents any difficulty in terms of compliance with the RFS volume requirements in 2013. 78 Fed. Reg. at 9301. Again, EPA misses the point. The mandate is intended to create a stable market to promote investment in production and infrastructure.

For the first time, EPA states that the statute gives EPA authority to "reduce both the total renewable and advanced biofuel volume together, not one or the other." 78 Fed. Reg. at 9295. EPA does so by referencing the "and" in Section 211(o)(7)(D) as "clear Congressional intent." *Id.* But, Congress uses "and" in more than one sense – "giving it a conjunctive meaning (requiring all items) in some places and giving it a disjunctive or cumulative meaning (allowing any of the items) in other places." *OfficeMax, Inc. v. U.S.*, 428 F.3d 583, 588 (2005); *see also Reese Bros., Inc. v. U.S.*, 447 F.3d 229, 235 (3d Cir. 2006) ("The Government contends – and we agree – that the word 'and' can be either conjunctive or disjunctive. *See, e.g., Slodov v. United States*, 436 U.S. 238, 98 S. Ct. 1778, 56 L.Ed.2d 251 (1978) (concluding that the word 'and' was used disjunctively in 26 U.S.C. § 6672 which imposed a tax penalty on '[a]ny person required to collect, truthfully account for, and pay over any tax imposed by this title.'); *Peacock v. Lubbock Compress Co.*, 252 F.2d 892 (5th Cir. 1958), *cert. denied*, 356 U.S. 973, 78 S. Ct. 1136, 2 L.Ed.2d 1147 (1958) (holding that 'and' was disjunctive in the context of a statute that required an employer to pay overtime wages to employees 'engaged in the ginning and compressing of cotton'). In fact, the word 'and' is used to mean 'or' within § 4252 itself."). In this context and to better effectuate the intent of Congress to develop Advanced Biofuels, the "and" is intended

to be disjunctive, as it distinguishes EPA's ability to reduce the Advanced Biofuel *or* Renewable Fuel volumes, but not the Biomass-based Diesel volume. Although the standards are nested, EPA and the statute treat these as four separate mandates.

Previously, EPA indicated that if it lowers the applicable volume of Advanced Biofuels it would also lower the applicable volume for Renewable Fuel. This makes sense given that the statute excludes certain renewable fuels from even being eligible as Advanced Biofuel even if it meets the 50% GHG reduction requirement. The same is not true, however, if there is a reason to lower the overall Renewable Fuel volume in light of the reduced Cellulosic Biofuel volume. Potential supply issues for conventional biofuels should not affect the Advanced Biofuel volumes. Thus, while NBB understands the concerns that sugarcane ethanol imports may replace some volume of conventional ethanol, the fact that sugarcane ethanol *may* fill in for domestically produced conventional biofuels is not sufficient grounds to reduce the Advanced Biofuel volume. This is particularly true when the bulk of the volume mandate can be met by *non-ethanol biofuels.*

V. EPA SHOULD CONTINUE TO INCREMENTALLY INCREASE THE BIOMASS-BASED DIESEL VOLUME AND RETAIN THE ADVANCED BIOFUEL VOLUME IN LATER YEARS.

A. EPA Should Issue its Proposal for the Biomass-based Diesel Volume for 2014 and 2015 As Soon as Possible.

In the proposal, EPA notes that it is not proposing an applicable volume of Biomass-based Diesel for 2014, but will do so in a separate proposal. NBB urges EPA to issue this proposal as soon as possible. In addition, to provide greater market certainty, EPA should include a proposal for setting the volumes for Biomass-based Diesel in later years, but at a minimum should include calendar year 2015. The volume for 2015 is due by November 1, 2013, and issuing at least a 2-year proposal allows EPA to be back in line with the deadlines in the statute.

In addition, as EPA itself recognizes, that it should "'promote predictability and reduce uncertainty.'" 77 Fed. Reg. at 1325. A 2-year proposal gives the market greater certainty to obtain additional investments to ensure continued expansion in production *and capacity* to better serve the Advanced Biofuel volumes in these and later years. EPA has previously recognized this to be the case: "We agree that specifying the required volumes of biomass-based diesel for more than one compliance year would provide greater certainty for both biofuel producers and obligated parties, stability for future investments and contracts, and could potentially reduce the need to waive a portion of the advanced biofuel requirement in future years." 77 Fed. Reg. at 59,483. EPA has another year of the program's implementation where biodiesel production exceeded all expectations, showing the incremental increases intended by Congress are working.

Contrary to statements raised by AFPM, the statute does not require EPA to conduct new analysis each year. *See, e.g.,* American Fuel & Petrochemical Manufacturers Petition for Reconsideration (AFPM Pet.) at 9-10 (Nov. 20, 2012). The statute merely requires that regulations be in place at least 14 months in advance. 42 U.S.C. § 7545(o)(2)(B)(ii) ("The Administrator shall promulgate rules establishing the applicable volumes under this clause no later than 14 months before the first year for which such applicable volume will apply."). That the regulations are required 14 months prior to the "first year" evidences the opposite of annual assessments. Moreover, a cost-benefit analysis is not required. If Congress intended to require annual cost-benefit analysis, it would have clearly said so. *Am. Textile Mfrs. Inst. v. Donovan*, 452 U.S. 490, 510 (1981); *see also Entergy Corp. v. Riverkeeper, Inc.,* 556 U.S. 208, 238 (2009) ("Because benefits can be more accurately monetized in some industries than in others, Congress typically decides whether it is appropriate for an agency to use cost-benefit analysis in crafting regulations. ... Accordingly, we should not treat a provision's silence as an implicit source of cost-benefit authority, particularly when such authority is elsewhere expressly granted and it has the potential to fundamentally alter an agency's approach to regulation.") (dissenting opinion). Instead, Congress provided a list of factors with no weights assigned. Indeed, a statutory mandate, by definition, is intended to influence market behavior and inherently includes increased costs.[34] In expanding the RFS, Congress understood there may be some costs, "though these costs may be offset in whole or in part by reducing energy consumption and our dependence on foreign oil." S. Rep. No. 110-65 at 18. While Congress required EPA to take several factors into account in identifying the appropriate increase, "any standard based on a balancing of costs and benefits by the [agency] that strikes a different balance than that struck by Congress would be inconsistent with the [statute.]" *Am. Textile Mfrs. Inst.*, 452 U.S. at 509. In light of the simple economics behind a mandate, it is clear that Congress could not have intended EPA to set volumes after the statutory mandates based solely on a traditional and wide-ranging cost-benefit analysis. That Congress included some cost considerations only indicates that the volumes would not be increased with no constraints on whether those increases were reasonable.

B. The Biomass-Based Diesel Volumes for 2014 and 2015 Should Show Continued Incremental Increases.

Historically, NBB has recommended that EPA set a volume of 1.6 billion gallons for 2014 and 1.9 billion gallons for 2015. This is consistent with the incremental increases Congress

[34] The original House-passed version of the Energy Policy Act of 2005 would have allowed EPA to waive the volumes based on a finding that there is an inadequate "distribution capacity to meet the requirement." *See also* H.R. 6 (Renewable Fuels, Consumer Protection, and Energy Efficiency Act of 2007, passed by Senate, June 25, 2007). This provision was not included in the final bill, indicating that Congress intended EPA to take this into account but did not intend this factor to be determinative. Similarly, Congress provided for a waiver based on costs to consumers solely for the first year of the program in 2006. 42 U.S.C. § 7545(o)(8).

anticipated, and, as outlined in NBB's comments on the 2013 Biomass-based Diesel volume,[35] can be supported by all the statutory factors EPA must consider. We note however that a number of recent analysis have predicted larger amounts in 2013 for biodiesel, which would lead to dramatically larger volumes in 2014 and 2105. *Please see* FarmdocDaily, *Domestic Biodiesel versus Brazilian Ethanol Revisited*, January 16, 2013, http://farmdocdaily.illinois.edu/2013/01/domestic-biodiesel-versus-brazilian.html; and a recent study showing the economic benefits of increased biodiesel production. Urbanchuk, *supra,* at 6.

The intent of the program is better served by instituting applicable volumes that provide for *increases* over time. That Congress anticipated increasing volumes of Biomass-based Diesel is evidenced by the increasing volumes for the years set by statute. It is a "fundamental canon of statutory construction that the words of the statute must be read in their context and with a view to their place in the overall statutory scheme." *Intercollegiate Broadcast System, Inc. v. Copyright Royalty Bd.*, 571 F.3d 69, 91 (D.C. Cir. 2009) (quoting *Davis v. Mich. Dep't of Treasury*, 489 U.S. 803, 809 (1989)). Starting in 2013, EPA is to set the volumes for biomass-based diesel "based on" the implementation of the program and an analysis of the statutory considerations listed. The "overall statutory scheme" is to steadily increase the use of renewable fuels.

This is also evidenced by the legislative history, which shows that Congress intended to have an ever growing presence of biofuels in the diesel fuel market. *See, e.g.,* 151 Cong. Rec. S11824-01, S11826-27 (Oct. 25, 2005) (Senator Obama indicated that Congress needed to provide "a far stronger signal," proposing a renewable diesel standard, which he referred to as a "small but bold step to create jobs in rural America, strengthen our economic security, and improve air quality."). "While not as large of a market as gasoline, petrodiesel is enormously significant to our economy, and reducing our reliance on foreign feedstocks for this diesel is of equal importance in our efforts to increase energy security." 152 Cong. Rec. S6285-01, S6288 (June 21, 2006). "This bill sends a signal to those entrepreneurs that a market is planned in the future for these domestically produced fuels, attracting the necessary investment to establish a national infrastructure of domestic fuel production capabilities." *Id.*; *see also* 151 Cong. Rec. S2998-01, S2999 (Mar. 17, 2005) (Sen. Lugar - S. 650) ("[T]his increased production and use will spur investment in critical infrastructure that will allow for the economical use of renewable fuels by all Americans."). The 1 billion gallon minimum, which Congress provided only for Biomass-based Diesel, evidences that it intended to have a specific, and increasing, "renewable diesel standard" within the overall RFS.

The proposed increases are, in fact, modest. Estimates at the time of the Energy Policy Act of 2005 showed that U.S. capacity may exceed the proposed statutory volumes. Thus, Congress gave EPA authority to increase those volumes after the initial statutory period.[36]

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[35] EPA-HQ-OAR-2010-0133-0159.

[36] Congress chose this approach over another approach that would have maintained the volumes at an amount that reflected the same ratio as in the final statutory year, which merely

Allowing EPA to increase volumes "will ensure that market demand for these fuels grows accordingly." 151 Cong. Rec. S2998-01, S3003 (Mar. 17, 2005) (Sen. Harkin - S. 650). Similarly, here, the proposed volumes for 2014 and 2015 remain well under existing capacity, and expected increases over time will ensure additional investment in production and capacity.

The NBB is looking forward to working with the EPA on the Biomass-based Diesel volume requirements for both 2014 and 2015 and are awaiting the proposed rule to further address these issues. As we prepare for the discussion our industry is updating its analysis for both capacity and EPA qualifying feedstocks.

C. EPA Should Ensure the Maximum Volume of Biomass-Based Diesel and Also Retain the Full 3.75 Billion Gallon Statutory Volume for 2014.

The Advanced Biofuel volume for 2014 increases to 3.75 billion gallons. This is to include 1.75 billion gallons of Cellulosic Biofuel. In the 2013 RFS proposal, EPA requests comment on whether a reduction of the Advanced Biofuel and Renewable Fuel volumes should be considered, the basis for such a reduction, and the amount of that reduction. For the same reasons noted above, NBB believes that there are no valid reasons to reduce the Advanced Biofuel volume for 2014 in light of any expected reduction in Cellulosic Biofuel volume.

EPA provides no indication as to what the Cellulosic Biofuel volume may be in 2014, even assuming zero production of Cellulosic Biofuel, there remains sufficient biodiesel capacity to meet the entire 3.75 billion gallons. Although operating capacity is around 3.15 billion ethanol-equivalent gallons and understanding not all of the capacity may be used, this does not include the increasing volumes of renewable diesel gallons, and sugarcane ethanol remains available to fill in the gaps. A recent study estimates continued increases in domestic capacity of Advanced Biofuels from new facilities in 2013 and 2014. *See* E2 Report at 7. This study found that the RFS2 Advanced Biofuel volumes could be met from new and existing facilities through 2015, but recognized that "continued support of these government programs is crucial." *Id.* at 18.

As described above, NBB believes that the Biomass-based Diesel volume should be increased to better insure the overall Advanced Biofuel volume is achieved. The expanded RFS "represents a major advance in our commitment to renewable, home grown fuels that reduce emissions, mitigate global warming, and improve farmer income. This is a strong market signal to ethanol, biodiesel, and other renewable energy investors that the Federal Government supports fuels that are more environmentally friendly and help to reduce our dependence on oil." 153 Cong. Rec. S15421, S15429 (Sen. Durbin). Thus, while NBB agrees that sugar ethanol

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allowed "increase at the growth in gasoline consumption thereafter." H.R. Rep. No. 109-215 at 220 (2005). The final bill turned this into a "*minimum* applicable volume," indicating Congress expected *increased* volumes based on consideration of *all* the listed factors.

remains a viable source of Advanced Biofuels, it also believes that steady increases in the Biomass-based Diesel requirement, in addition to ensuring increased use of biofuels in the diesel fuel market, better ensures that these benefits are realized. Any alleged concerns that sugarcane ethanol imports are exacerbating the blend wall impacts also can be alleviated by increasing the requirements for Biomass-based Diesel.

In any event, EPA must make sure that the volumes continue to support the goals of the statute, and should look to the criteria in Section 211(o)(7)(A) to determine if the volumes should be reduced and to what level. While NBB believes that available sources of Advanced Biofuels can meet the entire 3.75 billion gallon volumes, at a minimum, given the available capacity, EPA should provide for an increase in Advanced Biofuel use as envisioned by Congress from that in 2013. For 2013, EPA will be requiring 2.736 billion ethanol-equivalent gallons of non-cellulosic Advanced Biofuels -- 1.92 billion of which must be Biomass-based Diesel. This evidences that this is a minimum amount that EPA believes can be supplied to the United States. Further, as noted above, any potential concerns regarding a blend wall should not be used to unduly reduce the Advanced Biofuel volume for 2014.

COMMENTS OF THE NATIONAL BIODIESEL BOARD ON THE
REGULATION OF FUELS AND FUEL ADDITIVES:
2013 RENEWABLE FUEL STANDARDS; PROPOSED RULE,
78 Fed. Reg. 9282 (Feb. 7, 2013)

Docket ID No. EPA–HQ–OAR–2012–0546

APPENDIX A:

EPA SHOULD REJECT ANY CALLS TO ADJUST THE BIOMASS-BASED DIESEL VOLUME FOR 2013.

In September of 2012, EPA issued its final determination under Section 211(o)(2)(B)(ii) setting 1.28 billion gallons as the Biomass-based Diesel volume required for 2013. This was a final determination that cannot be reargued here. In the 2013 RFS proposal, EPA has not reopened that determination. In setting the standards, EPA is merely required to translate the volume requirements into a percentage for obligated parties to determine their individual requirements to effectuate the volume mandates. EPA does not have any discretion to adjust these volumes downward through the standard-setting process under Section 211(o)(3). The process for seeking such a reduction is provided under Section 211(o)(7), and includes numerous procedural and substantive requirements that must be complied with.

While immaterial to EPA's setting of the standard for Biomass-based Diesel, NBB understands that there are pending petitions for reconsideration on the 2013 Biomass-based Diesel volume. In an abundance of caution, NBB provides comments on these petitions, which it believes EPA should deny, and incorporates by reference its comments on the 2013 Biomass-based Diesel volume. (EPA-HQ-OAR-2010-0133-0159) The petitions raise no new information that could not have been raised during the public comment period and, in any event, such information is not of central relevance to EPA's determination. As such, they simply do not meet the requirements under Section 307.

First, the petitions for reconsideration point to the drought conditions in 2012, and the alleged "financial hardship" on animal producers. While the drought conditions arguably occurred after the close of the comment period, claims that increasing the required volumes of Biomass-based Diesel will increase soybean oil prices is not new. This issue was raised in comments (EPA-HQ-OAR-2010-0133-0153 at 5-6). In any event, these drought conditions did not affect the ability of biodiesel to be produced in 2012, and, moreover, biodiesel production provides financial benefits to the livestock/food industries. *See* NBB Comments on Waiver Requests (EPA-HQ-OAR-2012-0632-2233), which are incorporated herein by reference. EPA rejected requests for waiver of the 2012/2013 volumes based on drought conditions, particularly with respect to Biomass-based Diesel requirement; such denial was not challenged. 77 Fed. Reg. 70,752 (Nov. 27, 2012). Moreover, while the impact of the use of renewable fuels

on other factors, including the price and supply of agricultural commodities and food prices, is among the factors EPA is to consider, it did precisely that in setting the volume at 1.28 billion gallons. That is all the statute requires.[37] Further, given that the statute requires the volume to be set well in advance of the compliance year, it cannot be that EPA must reassess its determination any time prices may fluctuate. That there was a delay in issuing its final rule does not change the fact that statute does not require ongoing reassessment of the volumes.

Second, the petitions for reconsideration reference the three enforcement cases with respect to fraudulent RINs that were finalized in 2012, but that related to RINs generated prior to 2012. The petitions cite to no statutory factor to which the enforcement of the program relates, and, thus, EPA cannot base its determination on the potential for fraud. Moreover, these protests ring hollow given the numerous stakeholder meetings EPA undertook with respect to addressing these concerns, reflecting EPA was fully aware of this issue and the public had an opportunity to air its concerns to EPA.

In addition, the cases referenced have no impact on the ability of the biodiesel industry to produce the applicable volumes and then some. The enforcement actions taken by EPA in 2012 related to RINs generated from 2009-2011, and thus represent a small percentage of the overall volumes for those years and substantially less than the prior year RINs that were also available for use. Moreover, even accounting for these RINs, there was more Biomass-based Diesel produced than required in 2011.[38] This issue was also raised before the D.C. Circuit to call into question EPA's determination with respect to retaining the 2012 Advanced Biofuel volume to no avail. *See* Reply Brief for Petitioner API, *API v. EPA*, No. 12-1139, at 28-29 (D.C. Cir. Oct. 9, 2012). The enforcement actions also addressed RINs generated prior to the

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[37] The petition for reconsideration notes that EPA should not favor soybean biodiesel producers over the livestock/food industries and the U.S. consumer. While the premise that biodiesel use of soybean oil increases prices is demonstrably false, this ignores the fact that biodiesel producers face the same alleged increased costs as a result of the drought. It also ignores the benefits to the *farmer*, and industries supporting soybean and biodiesel production. In any event, if Congress intended EPA to weigh costs and impacts on the economy in setting the volumes under Section 211(o)(2)(B)(ii), it would have said so. That the waiver provisions require "severe" economic impacts evidences that this was not Congress' intent.

[38] *See* EPA, Response to the Petition of the American Petroleum Institute ("API") and the National Petrochemical and Refiners Association ("NPRA") for Reconsideration of Portions of the December 9, 2010 Rule Amending the Renewable Fuel Standard Program Regulations and Response to Petitions by API, NPRA, Western States Petroleum Association ("WSPA") and Coffeyville Resources Refining & Marketing, LLC ("Coffeyville") for a Waiver of the 2011 Cellulosic Biofuel Standard, at 12-13 (May 22, 2012).

obligated parties instituting any sort of due diligence mechanisms that became prevalent in 2012. Despite the program always being buyer beware, there was "widespread failure of obligated parties to conduct adequate oversight." 78 Fed. Reg. 12,158, 12,163 (Feb. 21, 2013). These failures cannot now be used as a basis to limit the volumes required under the statute. As EPA has recognized in its interim enforcement policy,[39] companies have now made "significant efforts" to ascertain the validity of the RINs purchased, and EPA has proposed a quality assurance program and affirmative defense to provide additional guidance and further promote oversight. The designation of the volumes is not the appropriate avenue to address these concerns, and thus this does not raise an issue of central relevance to the 2013 Biomass-based Diesel volume.

Third, the petitions for reconsideration attempt to call into question EPA's consideration of energy security impacts based on diesel fuel exports. As an initial matter, the petitions provide no explanation as to why this issue could not have been raised during the comment period. The same EIA data cited (http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MDIEXUS1&f=M) show similar exports of diesel fuel in 2010 and 2011. The mere fact that 2012 data is cited is not sufficient grounds for raising these issues late. Second, the statute requires consideration of the impact of *renewable fuels* on energy security, not decisions by obligated parties to export finished diesel fuel. Further, energy independence relates not merely to the amount of imports, but to the ability to rely on domestic sources of energy to meet the energy needs *of the United States*. While the petition cites to a study issued in September of 2011 regarding additional access to "North American" sources of energy, another key aspect of the EISA that is ignored by the petition is the intent to move this country away from using fossil fuels in general, not just imported fossil fuels. The additional oil resources cited involve resources in remote areas offshore and in the Arctic and include the oil sands from Canada. These resources "will require sustained investment, substantial advances in technology, and environmental risk management systems and approaches." National Petroleum Council, *Prudent Development: Realizing the Potential of North America's Abundant Natural Gas and Oil Resources*, at 13 (Sept. 2011). This assessment is beyond EPA's purview and the statutory factors. Moreover, if these resources are required to be considered for energy security, they must also be considered in assessing the environmental impacts of using renewable fuels over oil from these resources. Indeed, the cited report recognizes the country's goal of moving toward "a low-carbon energy mix." *Id.* at 16.

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[39] EPA's Second Interim Enforcement Response Policy is available at http://www.epa.gov/enforcement/documents/policies/erp/secondierp013113.pdf.

The remainder of the issues raised in the petitions could have been raised during the public comment period. These include comments on how EPA should apply the statutory factors when considering job creation, costs and impacts on the consumer, and potential carbon reductions. They raise no new information, but merely represent policy disagreements with EPA. As such, they cannot be grounds for reconsidering the 1.28 billion gallons.

The petition filed by American Fuel & Petrochemical Manufacturers, in particular, makes unsupported allegations, attempting to call into question data provided to EPA by NBB related to job creation. On job creation, the proposal clearly states that the increased volume is expected to increase employment and spur income expansion in rural areas and farming communities. 76 Fed. Reg. 38,844, 38,873 (July 1, 2011). While EPA provided additional information in support of that determination, the final rule's conclusion did not change nor is it based on a specific quantitative analysis. Nonetheless, the reconsideration petitions call into question the assumptions used by EPA, and indicate that EPA has relied on "biased information provided by NBB rather than conducting its own analysis." AFPM Pet. at 7. While providing no support for its claims that the study is biased, which it is not,[40] the D.C. Circuit has time and time again upheld EPA's reliance on information from industry, including rejecting similar claims that EPA cannot rely on statements by cellulosic biofuel producers in *API v. EPA*. *See also NRDC v. EPA,* 529 F.3d 1077, 1086 (D.C. Cir. 2008). Moreover, EPA's final rule clearly outlines the basis for its assumptions and the potential uncertainties with respect to reliance on the data provided. This is all EPA was required to do, and the petition makes nothing more than conclusory statements that cannot seriously call into question EPA's determination that increasing biodiesel production will provide additional jobs and income in the rural sector.[41]

Again, while outside the scope of the 2013 RFS proposal, NBB submits these comments as it expects similar claims to be raised by obligated parties in their comments. This is evidenced by testimony at the public hearing asking EPA to reduce all the volumes in the final rule. To the extent EPA does determine that a reduction may be required, it must follow the required procedures in Section 211(o)(7).

---

[40] EPA cites to a Presentation from NBB, "Biodiesel Forecasts, Infrastructure, and Economic Impacts", February 14, 2012. A more recent analysis confirms the substantial economic benefits of increased biodiesel production. John Urbanchuk, *Economic Impact of Reinstating the Biodiesel Tax Credit through 2013*, at 6 (Nov. 27, 2012); *see also* E2 Environmental Entrepreneurs, *Advanced Biofuel Market Report 2012: Meeting U.S. Fuel Standards* at 12, 18 (2012) (recognizing job creation as a result of increased Advanced Biofuel production).

[41] Aside from disagreeing with EPA's assumptions, the only "data" provided is one footnote referencing discussions with a "well-known biodiesel auditor."

Perkins Coie

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April 8, 2013

VIA ELECTRONIC SUBMISSION

Environmental Protection Agency
Air and Radiation Docket and Information Center
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

RE: Regulation of Fuels and Fuel Additives: Renewable Fuel Standards: Docket ID No. EPA-HQ-OAR-2012-0546

Perkins Coie LLP submits these comments on behalf of Coffeyville Resources Refining & Marketing, LLC (CRRM) and Wynnewood Refining Company, LLC (WRC) in response to the Environmental Protection Agency's (EPA) proposed rule entitled Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standard, 78 Federal Register 9282 (February 7, 2013) (the Proposed Rule). We support the American Fuel & Petrochemical Manufacturers' (AFPM) comments and we submit these comments to further address the impact the Proposed Rule would have on small and mid-size refiners of transportation fuel like CRRM and WRC.

As explained below, the proposed rule would require unrealistic Renewable Fuel Standards (RFS) volumes that would cause significant hardship to CRRM and WRC, harm consumers and the economy as a whole, and produce consequences inconsistent with the Energy Independence and Security Act of 2007 (EISA). Accordingly, we respectfully request that the Environmental Protection Agency (EPA) exercise its discretion to waive the entire RFS for 2013, provide an automatic hardship waiver for small refiners, and extend hardship relief to mid-size and other refineries that lack ethanol production/blending capabilities and must purchase RINs for compliance. Alternatively, EPA should significantly lower the 2013 RFS volume requirements to levels that will avoid a collision with the "ethanol blendwall" and the perverse consequences highlighted below. Moreover, the Proposed Rule is in excess of EPA's statutory authority under the Clean Air Act (CAA) and its implementation would violate the applicable statutory deadline and fundamental principles of administrative law.

The Proposed Rule's Fuel Volume Obligations for 2013 are Not Based in Fact, would Produce Consequences at Odds with the Congressional Intent, and thus are in Excess of EPA's Statutory Authority.

The Proposed Rule contains proposed renewable-fuel volume obligations for 2013 that are not grounded in the reality of existing demand for gasoline, infrastructure, competition, and supply of ethanol.

The "E10 Blendwall"

As the mandated annual biofuel volumes continue to increase and demand for gasoline continues to decline, ethanol may have or will soon exceed the 10% compatibility limit of the overwhelming majority of vehicles and fuel retail infrastructure in the United States—the "ethanol blendwall" or "E10 blendwall." In fact, the severe impact of hitting the E10 blendwall is already being felt by CRRM and WRC in the exponential increase in Renewable Identification Number (RIN) prices. As explained in detail in AFPM's comments, the Proposed Rule clearly overestimates the ability of the market to accommodate the mandated RFS volume by failing to adequately address the impending E10 blendwall.

Cellulosic Biofuel Mandate

The Proposed Rule's cellulosic biofuel mandate is not grounded in market realities either, as has been the case every year since RFS2's inception. In fact, while the U.S. Energy Information Administration (EIA)—which itself has admitted that its estimates have been consistently inaccurate—originally estimated that there will be 9.6 million gallons of cellulosic biofuel produced in 2013, it has since lowered that estimate almost by half to 5 million gallons. EPA has failed to revise its proposed RFS standards in light of this most recent EIA data, which itself remains unreliable. Rather than relying on aspirational estimates provided during "interviews" with ethanol and other biofuels companies motivated to drive demand for their product beyond its very limited and extremely unreliable supply, EPA must set the required volume using actual plant production volumes for the last three months of 2012 and significantly decrease volumetric requirements.

The Proposed Rule is Inconsistent with EISA

CRRM has a limited ability to blend a small amount of ethanol at its refinery rack and WRC has no blending capabilities. Therefore, each relies almost entirely on the purchase of RINs for compliance. The price of RINs has skyrocketed because the market is hitting the E10 blendwall. In fact, because RIN trading is restricted, if not impossible, until the ethanol for which RINs are a proxy has been physically blended into gasoline, reaching the blendwall means that there will be insufficient quantities of RINs or they will be unaffordable. In other words, compliance with RFS will be all but impossible. Thus, if the Proposed Rule is adopted, CRRM,

WRC, and other companies may be unable to acquire enough RINs to meet their RFS obligations at current production levels in 2013 and beyond.

In addition, absent available and economically viable RINs, some refiners may choose to export their gasoline overseas because exports are exempted from RFS and they can avoid purchasing RINs. Unfortunately, CRRM and WRC do not have the ability to export gasoline. Moreover, as other refiners export gasoline, the unrealistic situation presented by the Proposed Rule and current RFS regime will only be exacerbated each year as the statutory volumes go up while increasing exports put upward pressure on domestic consumer prices and downward pressure on domestic demand. Even for these other refiners with export capacity, exporting is only a limited option. There is a finite demand for gasoline abroad because most other countries operate in a diesel-based economy. When that demand is saturated, the only option left to meet RFS is for refineries to curtail production. The result will be that an even higher volume of ethanol will be required to be blended into an even more limited supply of domestic gasoline, pushing us further beyond the blendwall and creating economic havoc in the United States.

Both situations produce consequences inconsistent with EISA. First, the extremely high RIN prices caused by the Proposed Rule's unrealistic RFS volume requirements will have a particularly detrimental impact on small and mid-size refiners that do not own ethanol production/blending plants and are not vertically integrated. Small and mid-size refiners cannot produce and blend their own ethanol and thus have not been able to create and bank RINs as larger refiners that own ethanol production/blending facilities have been able to do. Because small and mid-size refiners are not vertically integrated, they cannot spread the high cost of complying with unrealistic RFS volume requirements across a larger business portfolio that includes company-owned fuel distribution and marketing outlets where RINs are separated. The result is that, absent relief from the proposed standard, small and mid-size refiners could be driven out of business, decreasing competition in the refining industry. Ultimately, the decrease in competition and the higher cost of compliance through the purchase of RINs will significantly hurt the economy and retail consumers through higher-priced fuel, contrary to EISA's intent and EPA's public statements.

Second, by driving U.S. refiners to export gasoline because RINs are unavailable or unreasonably expensive, the Proposed Rule could have an impact on the available supply of transportation fuels domestically, thus undermining EISA's purpose of furthering energy independence and national security.

Third, by leaving the advanced biofuel standard at the statutory volume, the Proposed Rule creates an incentive to import sugarcane ethanol from Brazil, contrary to EISA's purposes of furthering U.S. energy independence and reducing greenhouse-gas (GHG) emissions. At the same time, Brazil will replace sugarcane ethanol volumes by importing U.S. corn ethanol and/or gasoline. Shipping ethanol from the United States to Brazil at the same time indistinguishable ethanol is shipped from Brazil to the United States clearly does not reduce GHG emissions.

More generally, the EPA has not adequately examined whether the Brazilian sugarcane ethanol industry achieves sufficient GHG emissions reductions to further EISA's intent.

EPA Must Amend the Proposed Rule to Reflect Market Conditions and Avoid Consequences Contrary to EISA

In light of the market conditions and effects of implementing the Proposed Rule discussed above, CRRM and WRC respectfully request that EPA exercise its discretion to waive the entire RFS for 2013. If EPA does not waive the entire RFS for 2013 we request that it significantly lower the 2013 RFS volume requirements to levels that will avoid a collision with the E10 blendwall and the perverse consequences discussed above.

To this end, EPA must promulgate the 2013 RFS volumes at levels that recognize the significant reduction in gasoline demand and the technological limits on the amount of ethanol that may be blended into the gasoline pool. At a minimum, EPA must reduce the advanced and total RFS volume so that the quantity of ethanol mandated is sufficiently under 10% of gasoline demand to avoid the severe economic consequences of approaching the E10 blendwall. EPA must also reduce cellulosic biofuel requirements to zero until it has developed the ability to reliably predict production volumes. The CAA provides EPA with "tools" to adjust the volumes of renewable fuels in response to the market conditions discussed above and prevent consequences that undermine EISA.

Having Missed the Statutory Deadline, EPA Cannot Now Implement 2013 RFS

Under the CAA, EPA was required to have finalized the 2013 RFS standards by November 30, 2012. This statutory deadline serves important purposes, including allowing refiners and ethanol producers to plan ahead and thus stabilize RIN markets, the refining industry, and the larger economy. Having failed to meet the deadline, the RIN market has been extremely volatile and industry has been faced with unprecedented uncertainty.

EPA is without statutory authority to now promulgate the Proposed Rule a half year after the deadline. Accordingly, EPA should withdraw the Proposed Rule and instead begin to work on the 2014 RFS so it can be proposed in a timely manner and finalized by November 30, 2013, in compliance with the CAA. Adopting the Proposed Rule now and implementing it retroactively would violate the CAA, the Administrative Procedure Act, rulemaking and public notice requirements, and other fundamental principles of administrative law.

If the EPA insists on unlawfully adopting the Proposed Rule after the statutory deadline, it should, at a minimum, reduce the required RFS volumes by at least 40% to reflect that the Proposed Rule will not be finalized until May at the earliest, almost halfway through the year. If the rule is delayed any longer, the reduction should be adjusted to match the percentage of the year that has passed before the rule becomes final.

Hardship Waivers Provided to Small Refiners Should be Extended to Small and Mid-Size Refiners Similarly Impacted by the Proposed RFS

If EPA does not waive the RFS for 2013, CRRM and WRC respectfully request that the EPA automatically extend the hardship waiver to small refineries like WRC and also extend hardship relief to similarly situated mid-size refiners like CRRM. CCRM's refining business includes a 115,000 barrel-per-day refinery in Coffeyville, Kansas. WRC's business includes a 70,000 barrel-per-day refinery operated by Wynnewood Refining Company in Wynnewood, Oklahoma. The WRC facility qualifies as a "small refinery." *See* 40 CFR 80.1401 (defining "small refiner"). While the CRRM facility does not qualify as a "small refinery" under EPA's regulations, it is not far from the small-refiner threshold.

Like small refiners, and unlike larger refiners, CRRM and WRC are not vertically integrated and do not own ethanol production facilities. Without ethanol production, like small refiners, CRRM and WRC cannot produce and blend their own ethanol and have not been able to control the RIN and ethanol market and bank RINs. The CRRM facility is only able to blend a small amount of ethanol. The WRC facility cannot blend any. Because, like small refiners, CRRM and WRC are not vertically integrated, they cannot spread the high cost of complying with unrealistic RFS volume requirements across a larger business portfolio. Additionally, like most small refiners, CRRM and WRC's locations do not allow for the export of gasoline. Thus, CRRM and WRC have no options to turn to given the scarcity or absence of RINs. The result is that the Proposed Rule threatens to cause as much hardship to small and mid-size refiners like CRRM and WRC as it does to other small refiners. In fact, the Proposed Rule could drive these important parts of the industry, which provide jobs and increase competition, out of business. Accordingly, EPA should extend the hardship waiver to other mid-size and small refiners, like CRRM and WRC, which are not sufficiently capitalized to have had acquired ethanol or cellulosic biofuel production facilities, therefore must rely almost entirely on purchasing RINs to satisfy RFS, and thus will be disproportionately impacted by the Proposed Rule.

CRRM and WRC note that small refineries are not receiving hardship relief as contemplated and mandated by Congress. Relief was to be granted to small refineries if compliance with the RFS would cause a disproportionate economic hardship. *See* 42 U.S.C. § 7545 (o)(9)(ii)(II); 40 C.F.R § 80.1441(e)(2). In granting and denying hardship relief, EPA assumes that refineries that must purchase RINs for compliance suffer a disproportionate economic impact relative to larger refiners with the capital to purchase renewable fuels plants and/or the infrastructure to blend in lieu of purchasing RINs. However, EPA only grants hardship if, in addition to suffering a disproportionate economic impact, the small refinery would not remain economically viable without hardship relief. But the fact that a small refiner may be able to stay afloat in the short term has no bearing on whether it will suffer disproportionate hardship relative to others in the industry. Indeed, CRRM and WRC have already suffered disproportionate hardship due to their inability to acquire RINs at economically viable prices and

their inability to export gasoline—the only options available given the impending blendwall. Thus, EPA's implementation of hardship relief is not in accordance with the statutory mandate.

The RFS Program is Broken

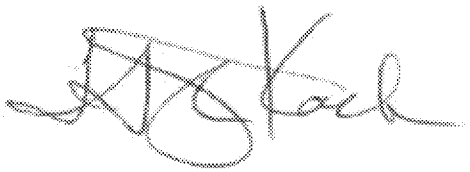
Like AFPM and other commenters, CRRM and WRC believe that the RFS Program is broken and in need of a major overhaul. Two primary factors have rendered RFS unworkable and contrary to EISA's intent. First, the market conditions that existed when Congress passed EISA in 2007 are now obsolete. EISA's statutory volumes were based on increasing gasoline demand and very aggressive renewable fuels production projections that have not come to pass. Second, EPA has structured the system for RIN generation and compliance is a way that encourages RIN speculation, arbitrage, and volatility that harms the RFS Program, the transportation fuels industry, and thus the economy. Specifically, EPA has created a bifurcated process under which the Renewable Volume Obligation (RVO) applies at the refinery gate, but RINs are generated downstream by the biofuel producer and blenders. Transferring the RVO to blenders would help stabilize the RIN market and reduce arbitrage because blenders control the sale of biofuel production and are thus better positioned to understand the supply and demand for biofuels.

Conclusion

CRRM and WRC are not opposed to renewable fuels and understand that developing multiple energy sources is important to meeting our nation's needs. We are committed to compliance with rules established by EPA, but we are concerned that the reality of market conditions will make compliance with the proposed standards nearly impossible and will produce effects counter to Congressional intent.

In light of these circumstances, EPA should waive the entire RFS mandate for at least 2013. If EPA insists on issuing RFS Standards for 2013 over a half a year later than required by law, it should significantly reduce required RFS volumes in order to ensure that the economy does not collide with the E10 blendwall. In reducing required RFS volumes, EPA should also be sure to avoid producing consequences that would be inconsistent with EISA. At a minimum, EPA must reduce the 2013 volumetric standards by approximately 40% to reflect the number of days the rule will be late in being finalized. EPA should also extend the harship waiver provided for small refiners to similarly situated mid-size refiners. The failure to waive or significantly reduce RFS volume requirements would exponentially increase the cost of complying with RFS, increase the amount of biofuels imported into the United States, decrease domestic gasoline supply, increase global GHG emissions, and decrease U.S. energy independence and security.

Respectfully submitted,



LeAnn M. Johnson

Message

From: Cohen, Janet [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D94B854E69CD4F9E80DB946BF9D1C1B2-COHEN, JANET]
Sent: 11/14/2017 7:28:48 PM
To: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
Subject: updated Deliberative Process / Ex. 5
Attachments: 11_14_15 update 10_5_17 small refinery discussion FINAL.pptx

Ben and Byron –
I updated the Mandy briefing so it's close to ready if we get a fast opportunity to talk with Bill. Please review if you have time, Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

- J. -

Message

From: Grundler, Christopher [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D3BE58C2CC8545D88CF74F3896D4460F-GRUNDLER, CHRISTOPHER]
Sent: 12/14/2017 1:03:53 PM
To: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]
CC: Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
Subject: Re: 10 am with Bill

Thx

Christopher Grundler, Director
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
202.564.1682 (Washington DC)
734.214.4207 (Ann Arbor MI)
734.645.5221 (mobile)
www.epa.gov/otaq

On Dec 14, 2017, at 7:56 AM, Hengst, Benjamin <Hengst.Benjamin@epa.gov> wrote:

Deliberative Process / Ex. 5

On Dec 14, 2017, at 7:49 AM, Cohen, Janet <cohen.janet@epa.gov> wrote:

We left off **Deliberative Process / Ex. 5**

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5 - J. -

On Dec 13, 2017, at 9:13 PM, Grundler, Christopher <grundler.christopher@epa.gov> wrote:

Let me know Thur am where we left off/where we will begin with Bill tomorrow on small Refinery exemptions. I don't remember.
Thx

C--

Christopher Grundler, Director
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
202.564.1682 (Washington DC)
734.214.4207 (Ann Arbor MI)
734.645.5221 (mobile)

www.epa.gov/otaq

Message

From: Cohen, Janet [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D94B854E69CD4F9E80DB946BF9D1C1B2-COHEN, JANET]
Sent: 11/29/2017 5:42:09 PM
To: Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
Subject: FW: small refinery briefing for 10 am fuels meeting
Attachments: **Deliberative Process / Ex. 5**

fyi

From: Cohen, Janet
Sent: Wednesday, November 29, 2017 12:35 PM
To: OTAQ Materials <OTAQMaterials@epa.gov>
Subject: RE: small refinery briefing for 10 am fuels meeting

Deliberative Process / Ex. 5 – j. -

From: Hengst, Benjamin
Sent: Wednesday, November 29, 2017 11:44 AM
To: Cohen, Janet <cohen.janet@epa.gov>
Cc: Sutton, Tia <sutton.tia@epa.gov>; Burch, Julia <Burch.Julia@epa.gov>
Subject: RE: small refinery briefing for 10 am fuels meeting

Janet—when you have a final version, can you please re-circulate to OTAQ Materials? Chris said he'll look at it 1pm today, so he may have edits after that.

From: Cohen, Janet
Sent: Wednesday, November 29, 2017 9:43 AM
To: OTAQ Materials <OTAQMaterials@epa.gov>
Cc: Davis, Theresa <Davis.Theresa@epa.gov>; Schmittou, Kim <schmittou.kim@epa.gov>; Boylan, Thomas <boylan.thomas@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Master, Barbora <Master.Barbora@epa.gov>; McKenna, Chris <McKenna.Chris@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Nelson, Karen <nelson.karen@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Piotrowski, Greg <piotrowski.greg@epa.gov>; Stahle, Susan <Stahle.Susan@epa.gov>; Sutton, Tia <sutton.tia@epa.gov>; Tom White <Thomas.White@hq.doe.gov>; Weihrauch, John <Weihrauch.John@epa.gov>
Subject: small refinery briefing for 10 am fuels meeting

Ben et al,
Can you please print this out for Chris.

Kim/Theresa, can you please print 6 copies for me.

Thanks! – j. -

Message

From: Cohen, Janet [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D94B854E69CD4F9E80DB946BF9D1C1B2-COHEN, JANET]
Sent: 6/27/2017 7:25:26 PM
To: Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
Subject: start on new briefing concept?
Attachments: 6_27_17 draft past deadline briefing OGC + paul +lauren new.pptx

Byron – I started playing with what I now understand you to want. Please check out slides 5-10 – maybe this is more what you were looking for?

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 11/7/2018 2:39:29 PM
To: Master, Barbora [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2c813860457b42019078b33089aaeee5-bjemelko]; Boylan, Thomas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=32e90a8aa3b04741a8ffb43f7e8814f5-Boylan, Tho]; Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
CC: Le, Madison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9297d8b52bcb41319ba40d11142ab307-Le, Madison]
Subject: FW: Agenda for Wednesday's fuels weekly with Chris - PBR rule
Attachments: Agenda for Fuels Weekly with Chris, Nov 7 2018.docx

Hey y'all,
Just an FYI that Ben let me know last night that he'd like for us

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

-Tia

From: Hengst, Benjamin
Sent: Tuesday, November 06, 2018 8:48 PM
To: Anderson, Robert <Anderson.Robert@epa.gov>; Borgert, Kyle <borgert.kyle@epa.gov>; Boylan, Thomas <boylan.thomas@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Burch, Julia <Burch.Julia@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Charmley, William <charmley.william@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Garfinkle, Stacey <garfinkle.stacey@epa.gov>; Greenglass, Nora <Greenglass.Nora@epa.gov>; Korotney, David <korotney.david@epa.gov>; Larson, Ben <Larson.Ben@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Levy, Aaron <Levy.Aaron@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Master, Barbora <Master.Barbora@epa.gov>; McKenna, Chris <McKenna.Chris@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Nelson, Karen <nelson.karen@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Patulski, Meg <patulski.meg@epa.gov>; Sargeant, Kathryn <sargeant.kathryn@epa.gov>; Shelby, Michael <Shelby.Michael@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>; Sobel, Aaron <Sobel.Aaron@epa.gov>; Stahle, Susan <Stahle.Susan@epa.gov>; Sutton, Tia <sutton.tia@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>
Subject: Agenda for Wednesday's fuels weekly with Chris

Please see attached. Thanks, Ben

Message

From: Cohen, Janet [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D94B854E69CD4F9E80DB946BF9D1C1B2-COHEN, JANET]
Sent: 6/14/2017 7:30:48 PM
To: Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
CC: Pugliese, Holly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e59863cb0b4b48ae197c4c44f064b0-Pugliese, Holly]
Subject: RE: response to RFS hardship exemptions control
Attachments: 6_14_17 rewrite AL-17-000-7238 RFS hardship.docx

Thanks Byron. **Deliberative Process / Ex. 5**

Deliberative Process / Ex. 5

From: Bunker, Byron
Sent: Wednesday, June 14, 2017 3:22 PM
To: Cohen, Janet <cohen.janet@epa.gov>
Cc: Pugliese, Holly <pugliese.holly@epa.gov>
Subject: RE: response to RFS hardship exemptions control

Thanks Janet.

Deliberative Process / Ex. 5

Thanks,

Byron

****
Byron Bunker
Director Compliance Division
Office of Transportation and Air Quality
Environmental Protection Agency
2000 Traverwood Drive
Ann Arbor, MI 48105
Bunker.Byron@epa.gov
Phone: (734) 214-4155
Mobile: (734) 353-9623
****

From: Cohen, Janet
Sent: Wednesday, June 14, 2017 3:20 PM
To: Bunker, Byron <bunker.byron@epa.gov>
Cc: Pugliese, Holly <pugliese.holly@epa.gov>
Subject: RE: response to RFS hardship exemptions control

Byron, here's a rewrite. Does this work better? - j. -

From: Bunker, Byron
Sent: Tuesday, June 06, 2017 3:23 PM
To: Cohen, Janet <cohen.janet@epa.gov>
Subject: RE: response to RFS hardship exemptions control

Thanks Janet.

Deliberative Process / Ex. 5

Thanks,

Byron

****
Byron Bunker
Director Compliance Division
Office of Transportation and Air Quality
Environmental Protection Agency
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****

From: Cohen, Janet
Sent: Tuesday, June 06, 2017 1:21 PM
To: Bunker, Byron <bunker.byron@epa.gov>
Subject: RE: response to RFS hardship exemptions control

Deliberative Process / Ex. 5

- J. -

From: Bunker, Byron
Sent: Tuesday, June 06, 2017 1:00 PM
To: Pugliese, Holly <pugliese.holly@epa.gov>
Cc: Cohen, Janet <cohen.janet@epa.gov>
Subject: RE: response to RFS hardship exemptions control

Hi Janet,

Deliberative Process / Ex. 5

Let's discuss.

Thanks,

Byron

****
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Phone: (734) 214-4155
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From: Pugliese, Holly
Sent: Monday, June 05, 2017 2:24 PM
To: Bunker, Byron <bunker.byron@epa.gov>
Cc: Cohen, Janet <cohen.janet@epa.gov>
Subject: response to RFS hardship exemptions control

Hi Byron. Attached is the draft response to this control. It has been reviewed by OGC and is to be signed by Sarah. If you have any questions or edits, please let us know.

Thanks.

Holly Pugliese
Office of Transportation and Air Quality
US EPA
pugliese.holly@epa.gov

Message

From: Cohen, Janet [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D94B854E69CD4F9E80DB946BF9D1C1B2-COHEN, JANET]
Sent: 6/14/2017 7:19:32 PM
To: Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]
CC: Pugliese, Holly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e59863cb0b4b48ae197c4c44f064b0-Pugliese, Holly]
Subject: RE: response to RFS hardship exemptions control
Attachments: 6_14_17 rewrite AL-17-000-7238 RFS hardship.docx

Byron, here's a rewrite. Does this work better? - j. -

From: Bunker, Byron
Sent: Tuesday, June 06, 2017 3:23 PM
To: Cohen, Janet <cohen.janet@epa.gov>
Subject: RE: response to RFS hardship exemptions control

Thanks Janet.

Deliberative Process / Ex. 5

Thanks,

Byron

****
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Deliberative Process / Ex. 5

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Byron

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Subject: response to RFS hardship exemptions control

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Thanks.

Holly Pugliese
Office of Transportation and Air Quality
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pugliese.holly@epa.gov

The EPA Administrator, Scott Pruitt, signed the following rule on 11/30/2017, and EPA is submitting it for publication in the Federal Register (FR). While we have taken steps to ensure the accuracy of this Internet version of the rule, it is not the official version of the rule. Please refer to the official version in a forthcoming FR publication, which will appear on the Government Printing Office's FDSys website (www.gpo.gov/fdsys/search/home.action) and on Regulations.gov (www.regulations.gov) in Docket No. EPA-HQ-OAR-2017-0091. Once the official version of this document is published in the FR, this version will be removed from the Internet and replaced with a link to the official version.

6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 80

[EPA-HQ-OAR-2017-0091; FRL-XXXX-XX-OAR]

[RIN 2060-AT04]

Renewable Fuel Standard Program: Standards for 2018 and Biomass-Based Diesel Volume for 2019

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Under section 211 of the Clean Air Act, the Environmental Protection Agency (EPA) is required to set renewable fuel percentage standards every year. This action establishes the annual percentage standards for cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel that apply to gasoline and diesel transportation fuel produced or imported in the year 2018. Relying on statutory waiver authority that is available when projected cellulosic biofuel production volumes are less than the applicable volume specified in the statute, the EPA is establishing volume requirements for cellulosic biofuel, advanced biofuel, and total renewable fuel that are below the statutory volume targets. In this action, we are also establishing the applicable volume of biomass-based diesel for 2019.

DATES: This final rule is effective on [**insert date 60 days after publication in the Federal Register**].

ADDRESSES: The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2017-0091. All documents in the docket are listed on the http://www.regulations.gov web site. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through http://www.regulations.gov.

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

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SUPPLEMENTARY INFORMATION:

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

Category	NAICS[1] Codes	SIC[2] Codes	Examples of Potentially Regulated Entities
Industry	324110	2911	Petroleum Refineries
Industry	325193	2869	Ethyl alcohol manufacturing
Industry	325199	2869	Other basic organic chemical manufacturing
Industry	424690	5169	Chemical and allied products merchant wholesalers
Industry	424710	5171	Petroleum bulk stations and terminals
Industry	424720	5172	Petroleum and petroleum products merchant wholesalers
Industry	221210	4925	Manufactured gas production and distribution
Industry	454319	5989	Other fuel dealers

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

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your entity would be regulated by this action, you should carefully examine the applicability criteria in 40 CFR part 80. 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.

Outline of this preamble

I. Executive Summary 5
A. Purpose of This Action 6
B. Summary of Major Provisions in This Action 10
1. Approach to Setting Volume Requirements 10
2. Cellulosic Biofuel 11
3. Advanced Biofuel 12
4. Total Renewable Fuel 13
6. 2019 Biomass-Based Diesel 13
7. Annual Percentage Standards 14
II. Authority and Need for Waiver of Statutory Applicable Volumes 16
A. Statutory Authorities for Reducing Volume Targets 16
1. Cellulosic Waiver Authority 16
2. General Waiver Authority 18

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B. Treatment of Carryover RINs 19
1. Updated Projection of Carryover RIN Volume 20
2. EPA's Decision Regarding the Treatment of Carryover RINs 21

III. Cellulosic Biofuel Volume for 2018 23

A. Statutory Requirements 24
B. Cellulosic Biofuel Industry Assessment 24
1. Potential Domestic Producers 27
2. Potential Foreign Sources of Cellulosic Biofuel 27
3. Summary of Volume Projections for Individual Companies 28

C. Projection from the Energy Information Administration 31
D. Cellulosic Biofuel Volume for 2018 31
1. Liquid Cellulosic Biofuel 31
2. CNG/LNG Derived from Biogas 37
3. Total Cellulosic Biofuel in 2018 40

IV. Advanced Biofuel and Total Renewable Fuel Volumes for 2018 42

A. Volumetric Limitation on Use of the Cellulosic Waiver Authority 44
B. Reasonably Attainable Volumes of Advanced Biofuel 45
1. Imported Sugarcane Ethanol 46
2. Biodiesel and Renewable Diesel 48
3. Other Advanced Biofuel 57
4. Total Advanced Biofuel 58

C. Exercise of Cellulosic Waiver Authority for Advanced Biofuel 58
D. Exercise of Cellulosic Waiver Authority for Total Renewable Fuel 60
E. Impacts of 2018 Standards on Costs 60
1. Illustrative Cost Savings Associated with Reducing Statutory Cellulosic Volumes 61
2. Illustrative Cost Analysis of Advanced Biofuels Using 2017 as the Baseline 63

V. Consideration of Additional Reductions Using Other Waiver Authorities 66

A. Inadequate Domestic Supply 66
B. Severe Economic Harm 69
C. Severe Environmental Harm 70
D. Biomass-Based Diesel Waiver Authority 70

VI. Final Biomass-Based Diesel Volume for 2019 72

A. Statutory Requirements 72
B. Determination of the 2019 Applicable Volume of Biomass-Based Diesel 73
C. Consideration of Statutory Factors set forth in CAA Section 211(o)(2)(B)(ii)(I)-(VI) for 2019 77

VII. Percentage Standards for 2018 79

A. Calculation of Percentage Standards 79
B. Small Refineries and Small Refiners 80
C. Final Standards 81

VIII. Administrative Actions 84

A. Assessment of the Domestic Aggregate Compliance Approach 84

This document is a prepublication version, signed by EPA Administrator Scott Pruitt on 11/30/2017. We have taken steps to ensure the accuracy of this version, but it is not the official version.

B. Assessment of the Canadian Aggregate Compliance Approach 85
C. RIN Market Operation 85
IX. Public Participation 87
X. Statutory and Executive Order Reviews 88
A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review 88
B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs 88
C. Paperwork Reduction Act (PRA) 88
D. Regulatory Flexibility Act (RFA) 88
E. Unfunded Mandates Reform Act (UMRA) 91
F. Executive Order 13132: Federalism 91
G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments 91
H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks 91
I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use 92
J. National Technology Transfer and Advancement Act (NTTAA) 92
K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations 92
L. Congressional Review Act (CRA) 92
XI. Statutory Authority 93

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I. Executive Summary

The Renewable Fuel Standard (RFS) program began in 2006 pursuant to the requirements in Clean Air Act (CAA) section 211(o) that were added through the Energy Policy Act of 2005 (EPAct). The statutory requirements for the RFS program were subsequently modified through the Energy Independence and Security Act of 2007 (EISA), leading to the publication of major revisions to the regulatory requirements on March 26, 2010.[1] EISA's stated goals include moving the United States (U.S) toward "greater energy independence and security [and] to increase the production of clean renewable fuels." Today, nearly all gasoline used for transportation purposes contains 10 percent ethanol (E10), and on average diesel fuel contains more than 4 percent biodiesel and/or renewable diesel.[2]

The statute includes annual volume targets, and requires EPA to translate those volume targets (or alternative volume requirements established by EPA in accordance with statutory waiver authorities) into compliance obligations that obligated parties must meet every year. In this action, we are establishing the annual percentage standards for cellulosic biofuel, biomass-based diesel (BBD), advanced biofuel, and total renewable fuel that would apply to all gasoline and diesel produced or imported in 2018. We are also establishing the applicable volume of BBD for 2019.

Real-world challenges, in particular the slower-than-expected development of the cellulosic biofuel industry, has slowed progress towards meeting Congressional goals for renewable fuels. Given the nested nature of the standards, the shortfall in cellulosic biofuels has made the volume targets established by Congress for 2018 for advanced biofuels and total renewable fuels beyond reach. On July 21, 2017, EPA published a proposed rulemaking, containing proposed volume requirements for the RFS Program's four categories of renewable fuels that would apply in 2018 (and 2019 for BBD).[3] On August 1, EPA hosted a public hearing on the proposed rule, and EPA received over 235,000 written comments on the proposed rule as well. On October 4, 2017, EPA published an "Availability of Supplemental Information; Request for Further Comment," (hereinafter, "October 4 notice") seeking further comment on the possible use of other waiver authorities in the final rule. Transcripts of the public hearing, along with all the comments received on the proposed rule and the October 4 notice are available in the docket. After careful review of the information before us we are finalizing volume requirements for 2018 for cellulosic biofuel, advanced biofuel and total renewable fuel that are lower than the statutory targets, but nevertheless will ensure these renewable fuels will continue to play a critical role as a complement to our petroleum-based fuels. The final rule modifies the volume requirements slightly relative to the proposed rule, and in this notice we explain where and why such modifications were made.

In this action, we are finalizing volume requirements for cellulosic biofuel at the level we project to be available for 2018. We are using the "cellulosic waiver authority" provided by the statute to finalize volume requirements for advanced biofuel and total renewable fuel that are

[1] 75 FR 14670, March 26, 2010.
[2] Average biodiesel and/or renewable diesel blend percentages based on EIA's October 2017 Short Term Energy Outlook (STEO).
[3] 82 FR 34206, July 21, 2017.

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lower than the statutory targets by the same magnitude as the reduction in the cellulosic biofuel reduction (i.e., the volumes we are finalizing for cellulosic biofuel, advanced biofuel, and total renewable fuel are all 6.71 billion gallons lower than the statutory volumes). We are not reducing volumes through use of the general waiver authority or the biomass-based diesel waiver authority.[4] We note that while we are reducing the required volume of total renewable fuel, advanced biofuel and cellulosic biofuel below statutory levels, the required volumes in this rule would achieve the implied statutory volumes for conventional biofuel[5] and non-cellulosic advanced biofuel[6] for 2018.

The final volume requirements for 2018 are shown in Table I-1 below. Relative to the levels finalized for 2017, the 2018 volume requirements for advanced biofuel and total renewable fuel are higher by 10 million gallons. EPA is reducing the advanced biofuel and total renewable fuel statutory volumes by the same amount as we are reducing the cellulosic biofuel volume. These reductions effectively preserve the implied statutory volumes for conventional renewable fuel and non-cellulosic advanced biofuels. We are establishing the volume requirement for BBD for 2019 at the proposed volume of 2.1 billion gallons.

Table I-1
Final Volume Requirements[a]

	2018	2019
Cellulosic biofuel (million gallons)	288	n/a
Biomass-based diesel (billion gallons)	2.1[b]	2.1
Advanced biofuel (billion gallons)	4.29	n/a
Renewable fuel (billion gallons)	19.29	n/a

[a] All values are ethanol-equivalent on an energy content basis, except for BBD which is biodiesel-equivalent.
[b] The 2018 BBD volume requirement was established in the 2017 final rule (81 FR 89746, December 12, 2016).

A. Purpose of This Action

The national volume targets of renewable fuel that are intended to be achieved under the RFS program each year (absent an adjustment or waiver by EPA) are specified in CAA section 211(o)(2). The statutory volume targets for 2018 are shown in Table I.A-1, along with the 2017 targets for comparison. The cellulosic biofuel and BBD categories are nested within the advanced biofuel category, which is itself nested within the total renewable fuel category. This means, for example, that each gallon of cellulosic biofuel or BBD that is used to satisfy the individual volume requirements for those fuel types can also be used to satisfy the requirements for advanced biofuel and total renewable fuel.

[4] See 42 USC 7545(o)(7)(A)(i-ii). See also the discussion of the general waiver authority in Section II.A.2. below.
[5] Throughout this final rule conventional biofuel refers to biofuel that qualifies as renewable fuel, but does not qualify as an advanced biofuel. RINs generated for conventional biofuels have a D code of 6.
[6] Throughout this final rule non-cellulosic advanced biofuel refers to biofuel that qualifies as advanced biofuel, but does not qualify as cellulosic biofuel. RINs generated for non-cellulosic advanced biofuels have a D code of 4 or 5.

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Table I.A-1
Applicable Volume Targets Specified in the Clean Air Act (billion gallons)[a]

	2017	2018
Cellulosic biofuel	5.5	7.0
Biomass-based diesel	≥1.0	≥1.0
Advanced biofuel	9.0	11.0
Renewable fuel	24.0	26.0

[a] All values are ethanol-equivalent on an energy content basis, except values for BBD which are given in actual gallons.

Under the RFS program, EPA is required to determine and publish annual percentage standards for each compliance year. The percentage standards are calculated to ensure use in transportation fuel of the national "applicable volumes" of the four types of biofuel (cellulosic biofuel, BBD, advanced biofuel, and total renewable fuel) that are set forth in the statute or established by EPA in accordance with the Act's requirements. The percentage standards are used by obligated parties (generally, producers and importers of gasoline and diesel fuel) to calculate their individual compliance obligations. Each of the four percentage standards is applied to the volume of non-renewable gasoline and diesel that each obligated party produces or imports during the specified calendar year to determine their individual volume obligations with respect to the four renewable fuel types. The individual volume obligations determine the number of Renewable Identification Numbers (RINs) of each renewable fuel type that each obligated party must acquire and retire to demonstrate compliance.

EPA is establishing the annual applicable volume requirements for cellulosic biofuel, advanced biofuel, and total renewable fuel for 2018, and for BBD for 2019.[7] Table I.A-2 lists the statutory provisions and associated criteria relevant to determining the national applicable volumes used to set the percentage standards in this final rule.

Table I.A-2
Statutory Provisions for Determination of Applicable Volumes

Applicable volumes	Clean Air Act reference	Criteria provided in statute for determination of applicable volume
Cellulosic biofuel	211(o)(7)(D)(i)	Required volume must be lesser of volume specified in CAA 211(o)(2)(B)(i)(III) or EPA's projected volume.
	211(o)(7)(A)	EPA in consultation with other federal agencies may waive the statutory volume in whole or in part if implementation would severely harm the economy or environment of a State, region, or the United States, or if there is an inadequate domestic supply.

[7] The 2018 BBD volume requirement was established in the 2017 final rule.

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Biomass-based diesel	211(o)(2)(B)(ii) and (v)	Required volume for years after 2012 must be at least 1.0 billion gallons, and must be based on a review of implementation of the program, coordination with other federal agencies, and an analysis of specified factors.
	211(o)(7)(A)	EPA in consultation with other federal agencies may waive the statutory volume in whole or in part if implementation would severely harm the economy or environment of a State, region, or the United States, or if there is an inadequate domestic supply.
	211(o)(7)(E)	EPA in consultation with other federal agencies shall issue a temporary waiver of applicable volumes of BBD where there is a significant feedstock disruption or other market circumstance that would make the price of BBD fuel increase significantly. When exercising this authority, EPA is also authorized to reduce the applicable volumes of advanced and total renewable fuel by the same or a lesser volume.
Advanced biofuel	211(o)(7)(D)(i)	If applicable volume of cellulosic biofuel is reduced below the statutory volume to the projected volume, EPA may reduce the advanced biofuel and total renewable fuel volumes in CAA 211(o)(2)(B)(i)(I) and (II) by the same or lesser volume. No criteria specified.
	211(o)(7)(A)	EPA in consultation with other federal agencies may waive the statutory volume in whole or in part if implementation would severely harm the economy or environment of a State, region, or the United States, or if there is an inadequate domestic supply.
	211(o)(7)(E)	If applicable volume of biomass-based diesel is reduced, EPA may reduce the advanced biofuel and total renewable fuel volumes in CAA 211(o)(2)(B)(i)(I) and (II) by the same or lesser volume.

Total renewable fuel	211(o)(7)(D)(i)	If applicable volume of cellulosic biofuel is reduced below the statutory volume to the projected volume, EPA may reduce the advanced biofuel and total renewable fuel volumes in CAA 211(o)(2)(B)(i)(I) and (II) by the same or lesser volume. No criteria specified.
	211(o)(7)(A)	EPA in consultation with other federal agencies may waive the statutory volume in whole or in part if implementation would severely harm the economy or environment of a State, region, or the United States, or if there is an inadequate domestic supply.
	211(o)(7)(E)	If applicable volume of biomass-based diesel is reduced, EPA may reduce the advanced biofuel and total renewable fuel volumes in CAA 211(o)(2)(B)(i)(I) and (II) by the same or lesser volume.

As shown in Table I.A-2, the statutory authorities allowing EPA to modify or set the applicable volumes differ for the four categories of renewable fuel. Under the statute, EPA must annually determine the projected volume of cellulosic biofuel production for the following year. If the projected volume of cellulosic biofuel production is less than the applicable volume specified in CAA section 211(o)(2)(B)(i)(III) of the statute, EPA must lower the applicable volume used to set the annual cellulosic biofuel percentage standard to the projected production volume. In Section III of this final rule, we present our analysis of cellulosic biofuel production and the applicable volume for 2018. This analysis is based primarily on the estimate of cellulosic biofuel production for 2018 conducted by the Energy Information Administration (EIA),[8] information reported to EPA through our Electronic Moderated Transaction System (EMTS), comments received on our proposed rule, and an evaluation of producers' production plans and progress to date following discussions with cellulosic biofuel producers.

With regard to BBD, CAA section 211(o)(2)(B) specifies the applicable volumes of BBD to be used in the RFS program only through year 2012. For subsequent years the statute sets a minimum volume of 1 billion gallons, and directs EPA, in coordination with the U.S. Departments of Agriculture (USDA) and Energy (DOE), to determine the required volume after review of implementation of the renewable fuels program and consideration of a number of factors. The BBD volume requirement must be established 14 months before the year in which it will apply. In the 2017 final rule we established the BBD volume for 2018. In Section VI of this preamble we discuss our assessment of statutory and other relevant factors and our final volume requirement for BBD for 2019, which has been developed in coordination with USDA and DOE. We are establishing an applicable volume of 2.1 billion gallons of BBD for use in deriving the

[8] "Letter from EIA to EPA on 2018 projected volumes," available in docket EPA-HQ-OAR-2017-0091.

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BBD percentage standard in 2019. This volume is equal to the applicable volume of BBD established in a prior rulemaking for 2018, and would provide continued support to an industry that is a significant contributor to the pool of advanced biofuel, while at the same time setting the volume requirement in a manner anticipated to provide a continued incentive for the development of other types of advanced biofuel.

Regarding advanced biofuel and total renewable fuel, Congress provided several mechanisms through which the statutory targets could be reduced if necessary. If we reduce the applicable volume of cellulosic biofuel below the volume specified in CAA section 211(o)(2)(B)(i)(III), we also have the authority to reduce the applicable volumes of advanced biofuel and total renewable fuel by the same or a lesser amount. We refer to this as the "cellulosic waiver authority." We may also reduce the applicable volumes of any of the four renewable fuel types using the "general waiver authority" provided in CAA section 211(o)(7)(A) if EPA, in consultation with USDA and DOE, finds that implementation of the statutory volumes would severely harm the economy or environment of a State, region, or the U.S., or if there is inadequate domestic supply. We are also authorized under CAA section 211(o)(7)(E) to reduce the applicable volume of BBD established for 2018, and to make equal or lesser reductions in the 2018 applicable volumes of advanced biofuel and total renewable fuel, if we determine that there is a significant renewable feedstock disruption or other market circumstance that would make the price of BBD increase significantly. Sections II and IV of this final rule describe our use of the cellulosic waiver authority alone to derive the volumes of advanced biofuel and total renewable fuel that are below the statutory target volumes, and our assessment that the resulting volumes can be met. We believe that reductions in the statutory targets for cellulosic biofuel, advanced biofuel and total renewable fuel for 2018 are necessary. However, in light of our review of available information, we are making those reductions under the cellulosic waiver authority alone and are not reducing them further under other waiver authorities. Thus, the reductions in both the advanced and total renewable fuel standards are directly attributable to the significant shortfall in cellulosic biofuel production, as compared to the statutory targets. A discussion of our consideration of the general waiver authority and biomass-based diesel waiver authority to further reduce the required biofuel volumes in 2018 can be found in Section V.

B. Summary of Major Provisions in This Action

This section briefly summarizes the major provisions of this final rule. We are establishing applicable volume requirements and associated percentage standards for cellulosic biofuel, advanced biofuel, and total renewable fuel for 2018; for BBD we are establishing the percentage standard for 2018 and the applicable volume requirement for 2019.

1. Approach to Setting Volume Requirements

The approach we have taken in this final rule of using the cellulosic waiver authority to reduce advanced biofuel and total renewable fuel by the same amount as the reduction in the required volume of cellulosic biofuel is the same approach as in our proposed rule, but is a departure from our approach to using the cellulosic biofuel waiver authority in previous years.

In previous years we have used the cellulosic waiver authority to reduce the advanced biofuel and total renewable fuel volume requirements by a lesser amount than the reduction in the cellulosic biofuel volume requirement to allow reasonably attainable volumes of advanced biofuels to partially backfill for missing cellulosic biofuel volumes. However, the approach we have taken for 2018 does not result in a reduction in the volume requirement for non-cellulosic advanced biofuel. While the implied statutory volume for non-cellulosic advanced biofuel increased by 500 million gallons from 2017 to 2018, through our 2017 action we effectively required early use of approximately 0.5 billion gallons of non-cellulosic advanced volume that Congress envisioned would be first used in 2018.[9] Therefore, despite using the cellulosic waiver authority to reduce the volume of advanced biofuel by the same amount as cellulosic biofuel, the advanced biofuel volume requirement for 2018 is 10 million gallons higher than the advanced biofuel volume requirement in 2017. In this rule we are reducing all three volume requirements by the same amount after considering the greenhouse gas (GHG), energy security benefits, and anticipated costs of advanced biofuels that would occur at levels beyond those being finalized today.

Section II provides a general description of our approach to setting volume requirements in today's rule, including a review of the statutory waiver authorities and our consideration of carryover RINs. Section III provides our assessment of the 2018 cellulosic biofuel volume, based on a projection of production that reflects a neutral aim at accuracy. Sections IV and V describe our assessments of advanced biofuel and total renewable fuel, and consideration of the general and biomass-based diesel waiver authorities. Finally, Section VI provides our determination regarding the 2019 BBD volume requirement, and reflects an analysis of a set of factors stipulated in CAA section 211(o)(2)(B)(ii).

2. Cellulosic Biofuel

In the past several years the cellulosic biofuel industry has continued to make progress towards increased commercial scale production. Cellulosic biofuel production reached record levels in 2016 and has continued to grow throughout 2017, driven largely by compressed natural gas (CNG) and liquefied natural gas (LNG) derived from biogas. Liquid cellulosic biofuels, while produced in much smaller quantities than CNG/LNG derived from biogas, have been produced at steady but relatively small volumes throughout 2017. In this rule we are establishing a cellulosic biofuel volume requirement of 288 million ethanol-equivalent gallons for 2018 based on our production projection. Our projection reflects consideration of a production estimate from EIA, RIN generation data available to EPA through EMTS, comments we received on the proposed rule, the information we have received regarding individual facilities' capacities, production start dates and biofuel production plans, a review of cellulosic biofuel production relative to EPA's projections in previous annual rules, and EPA's own engineering judgment. To

[9] The statutory advanced biofuel and cellulosic biofuel requirements for 2018 are 11.0 and 7.0 billion gallons respectively. This implies a non-cellulosic advanced biofuel statutory volume of 4.0 billion gallons. The statutory advanced biofuel and cellulosic biofuel requirements for 2017 are 9.0 and 5.5 billion gallons respectively. This implies a non-cellulosic advanced biofuel statutory volume of 3.5 billion gallons. In 2017 EPA established required volumes of advanced biofuel and cellulosic biofuel of 4.28 billion and 311 million gallons respectively, implying a non-cellulosic advanced biofuel volume of 3.97 billion gallons.

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project cellulosic biofuel production for 2018 we used the same basic methodology described in the proposed rule. However, we have used updated data to derive percentile values used in our production projection for liquid cellulosic biofuels and to derive the year-over-year change in the rate of production of CNG/LNG derived from biogas that is used in the projection for CNG/LNG. (See Section III for further detail on the methodology used to project cellulosic biofuel production).

In estimating the volume of liquid cellulosic biofuel that will be made available in the U.S. in 2018, we considered all potential production sources by company and facility. This included facilities still in the commissioning or start-up phases, as well as facilities already producing some volume of cellulosic biofuel.[10] From this universe of potential liquid cellulosic biofuel sources, we identified the subset that is expected to produce commercial volumes of qualifying liquid cellulosic biofuel for use as transportation fuel, heating oil, or jet fuel by the end of 2018. To arrive at projected volumes, we collected relevant information on each facility. We then developed projected production ranges based on factors such as progress towards construction and production goals, facility registration status, production volumes achieved, and other significant factors that could potentially impact fuel production or the ability of the produced fuel to qualify for cellulosic biofuel RINs. We also used this information to group these companies based on production history and to select a value within the aggregated projected production ranges that we believe best represents the most likely production volume from each group of companies in 2018.

For 2018, we are using an industry wide, rather than a facility-by-facility approach to project the production of CNG/LNG derived from biogas. We believe this approach is appropriate due to the mature state of this technology, the large number of facilities that are registered to produce cellulosic biofuel RINs for these fuels, and the fact that their volumes are likely to be affected more by market wide factors than individual company situations. Further discussion on our projection of cellulosic biofuel production in 2018, including the factors considered and the way these factors were used to determine our final cellulosic biofuel projection, can be found in Section III.

3. Advanced Biofuel

We are finalizing required advanced biofuel requirements using the same approach used in the July proposed rulemaking. As was the case at the time of proposal, the conditions that compelled us to reduce the 2017 volume requirement for advanced biofuel below the statutory target remain relevant in 2018. As for 2017, we investigated the ability of volumes of non-cellulosic advanced biofuels to backfill unavailable volumes of cellulosic biofuel in 2018. We took into account the various constraints on the ability of the market to make advanced biofuels available, the ability of the standards we set to bring about market changes in the time available, the potential impacts associated with diverting biofuels and/or biofuel feedstocks from current

[10] Facilities primarily focused on research and development (R&D) were not the focus of our assessment, as production from these facilities represents very small volumes of cellulosic biofuel, and these facilities typically have not generated RINs for the fuel they have produced.

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use to the production of advanced biofuel used in the U.S., the fact that the biodiesel tax credit is currently not available for 2018, the proposed countervailing duties on imports of biodiesel from Argentina and Indonesia, as well as the cost of advanced biofuels. Based on these considerations we have decided to reduce the applicable volume of advanced biofuel by the same amount as we are reducing the applicable volume of cellulosic biofuels. This results in an advanced biofuel volume for 2018 that is 10 million gallons higher than the advanced biofuel volume for 2017. Although we determined that a small amount of reasonably attainable volumes of advanced biofuel could be used to backfill a portion of the missing cellulosic biofuel, for reasons described in Section IV, we are not exercising the discretion provided under the cellulosic waiver authority in a manner that would lead to that result.

As mentioned above, we are exercising our cellulosic waiver authority to reduce the statutory applicable volume of advanced biofuel to a volume requirement of 4.29 billion gallons for 2018. This applicable volume for 2018 is 10 million gallons higher than the applicable volume for advanced biofuel for 2017.

4. Total Renewable Fuel

Following our determination of the appropriate volume reduction for advanced biofuel for 2018 using the cellulosic waiver authority, we calculated what the total renewable fuel volume would be if we provide the same level of reduction using the cellulosic waiver authority. The resulting volume is 19.29 billion gallons.

5. Other Waiver Authorities.

We have evaluated whether additional reductions in cellulosic biofuel, biomass-based diesel, advanced biofuel, or total renewable fuel are warranted for 2018 using either the general waiver authority or the BBD waiver authority and have determined that additional reductions are not warranted at this time.

6. 2019 Biomass-Based Diesel

In EISA, Congress specified increasing applicable volumes of BBD through 2012. Beyond 2012 Congress stipulated that EPA, in coordination with DOE and USDA, was to establish the BBD volume taking into consideration implementation of the program to date and various specified factors, providing that the required volume for BBD could not be less than 1.0 billion gallons. For 2013, EPA established an applicable volume of 1.28 billion gallons. For 2014 and 2015 we established the BBD volume requirement to reflect the actual volume for each of these years of 1.63 and 1.73 billion gallons.[11] For 2016 and 2017, we set the BBD volume

[11] The 2015 BBD standard was based on actual data for the first 9 months of 2015 and on projections for the latter part of the year for which data on actual use was not available at the time.

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requirements at 1.9 and 2.0 billion gallons respectively. Finally, for 2018 the BBD volume requirement was set a 2.1 billion gallons. We proposed to maintain this level for 2019.

Given current and recent market conditions, the advanced biofuel volume requirement is driving the production and use of biodiesel and renewable diesel volumes over and above volumes required through the separate BBD standard, and we expect this to continue. For 2019, EPA continues to believe that it would still be appropriate to provide a floor above the statutory minimum of 1 billion gallons to provide a guaranteed level of support for the continued production and use of BBD. However, we also believe that the volume of BBD supplied in previous years demonstrates that the advanced biofuel standard is capable of incentivizing additional supply of these fuels above the volume required by the BBD standard. Thus, based on a review of the implementation of the program to date and all the factors required under the statute, and in coordination with USDA and DOE, we are finalizing an applicable volume of BBD for 2019 at the proposed volume of 2.1 billion gallons.

7. Annual Percentage Standards

The renewable fuel standards are expressed as a volume percentage and are used by each producer and importer of fossil-based gasoline or diesel to determine their renewable fuel volume obligations.

Four separate percentage standards are required under the RFS program, corresponding to the four separate renewable fuel categories shown in Table I.A-1. The specific formulas we use in calculating the renewable fuel percentage standards are contained in the regulations at 40 CFR 80.1405. The percentage standards represent the ratio of the national applicable volume of renewable fuel volume to the national projected non-renewable gasoline and diesel volume less any gasoline and diesel attributable to small refineries granted an exemption prior to the date that the standards are set. The volume of transportation gasoline and diesel used to calculate the percentage standards was based on a letter provided to the EPA by EIA, as required by statute.[12] The percentage standards for 2018 are shown in Table I.B.7-1. Detailed calculations can be found in Section VII, including the projected gasoline and diesel volumes used.

Table I.B.7-1
Final 2018 Percentage Standards

Cellulosic biofuel	0.160 %
Biomass-based diesel	1.74 %
Advanced biofuel	2.37 %
Renewable fuel	10.67 %

8. Assessment of Aggregate Compliance

[12] "Letter from EIA to EPA on 2018 projected volumes," available in docket EPA-HQ-OAR-2017-0091.

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By November 30 of each year we are required to assess the status of the aggregate compliance approach to land use restrictions under the definition of renewable biomass for both the U.S. and Canada. In today's action we are providing the final announcements for these administrative actions. As described in Section VIII.A, based on data provided by the USDA and using the methodology in place since 2014, we have estimated that U.S. agricultural land totaled approximately 376 million acres in 2017 and thus did not exceed the 2007 baseline acreage. This assessment means that the aggregate compliance provision can continue to be used in the U.S. for calendar year 2018.

On September 29, 2011, EPA approved the use of a similar aggregate compliance approach for planted crops and crop residue grown in Canada. As described in Section VIII.B, based on data provided by Canada, we have estimated that Canadian agricultural land totaled approximately 117.8 million acres in 2017 and thus did not exceed the 2007 baseline acreage. This assessment means that the aggregate compliance provision can continue to be used in Canada for calendar year 2018.

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II. Authority and Need for Waiver of Statutory Applicable Volumes

The CAA provides EPA with the authority to enact volume requirements below the applicable volume targets specified in the statute under specific circumstances. This section discusses those authorities.

A. Statutory Authorities for Reducing Volume 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, and for BBD through 2012, and authorized EPA to set volume requirements for subsequent years in coordination with USDA and DOE, and after consideration of specified factors. However, Congress also recognized that under certain circumstances it would be appropriate for EPA to set volume requirements at a lower level than reflected in the statutory volume targets, and thus provided waiver provisions in CAA section 211(o)(7).

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 specified in the statute, that EPA must reduce the applicable volume of cellulosic biofuel required to the projected production volume for that calendar year. In making this projection, EPA may not "adopt a methodology in which the risk of overestimation is set deliberately to outweigh the risk of underestimation" and must make a projection that "aims at accuracy." *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 volumes for each year since 2010. As described in Section III.D, the projected volume of cellulosic biofuel production for 2018 is less than the 7.0 billion gallon volume target in the statute. Therefore, for 2018, we are setting the cellulosic biofuel volume requirement at a level lower than the statutory applicable volume, in accordance with this provision.

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 it reduces the applicable volume of cellulosic biofuel under that provision. The reduction must be less than or equal to the reduction in cellulosic biofuel. For 2018, we are also reducing the applicable volumes of advanced biofuel and total renewable fuel under this authority.

The cellulosic waiver authority is discussed in detail in the preamble to the 2017 final rule and that discussion is incorporated by reference.[13] 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 (D.C. Cir. 2014) (affirming EPA's broad discretion under the cellulosic waiver authority to reduce volumes of advanced biofuel and total renewable fuel),

[13] See 81 FR 89752-89753 (December 12, 2016).

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and *Americans for Clean Energy v. EPA* ("*ACE*"), 864 F.3d 691 (D.C. Cir. 2017) (discussed below).

In *ACE*, the court evaluated EPA's use of the cellulosic waiver authority in the 2014-2016 annual rulemaking to reduce the advanced biofuel and total renewable fuel volumes for 2014, 2015, and 2016. There, EPA used the cellulosic waiver authority to reduce the standard for advanced biofuel to a volume that was reasonably attainable, and then provided a comparable reduction under this authority for total renewable fuel.[14] The Court of Appeals for the District of Columbia, relying on the analysis in *Monroe Energy*, reaffirmed that EPA enjoys "broad discretion" under the cellulosic waiver authority "to consider a variety of factors—including demand-side constraints in the advanced biofuels market."[15] The Court noted that the only textual limitation on the use of the cellulosic waiver authority is that it cannot exceed the amount of the reduction in cellulosic biofuel.[16] The Court contrasted the general waiver authority under CAA section 211(o)(7)(A) and the biomass based diesel waiver authority under CAA section 211(o)(7)(E), which "detail the considerations and procedural steps that EPA must take before waiving fuel requirements," with the cellulosic waiver authority, which identifies no factors regarding reductions in advanced and total renewable fuel other than the limitation that any such reductions may not exceed the reduction in cellulosic biofuel volumes.[17] The Court also concluded that the scope of EPA's discretionary authority to reduce advanced and total volumes is the same under the cellulosic waiver provision whether EPA is declining to exercise its authority to waive volumes, or choosing to do so.[18]

In this action we are reducing the statutory volume targets for advanced biofuels and total renewable fuel by equal amounts, as was our approach in using the cellulosic waiver authority in setting the 2014-2017 standards. EPA's reasoning for an equal reduction is explained in the 2017 final rule.[19] We have made a determination, as described in Section IV, that the applicable volume for advanced biofuels specified in the statute for 2018 cannot be achieved and we are exercising our cellulosic waiver authority to lower the applicable volume of advanced biofuel, and to provide an equal reduction in the applicable volume of total renewable fuel. In addition, we have determined that there is likely to be adequate supply to satisfy the total renewable fuel volume derived through applying an equal volume reduction as for advanced biofuel as discussed in Section V. Therefore, we have determined that no further reductions of the total renewable fuel volume requirement are necessary to address supply concerns.[20] The resulting volumes of advanced and total renewable fuel resulting from this exercise of the cellulosic waiver authority provide for an implied volume allowance for conventional biofuel of fifteen billion gallons, equal to that envisioned by Congress for 2018.

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[14] See 80 FR 77433-34 (December 14, 2015).
[15] *ACE* at 730.
[16] *Id.* at 733.
[17] *Id.*
[18] *Id.*
[19] See 81 FR 89752 – 89753 (December 12, 2016). See also, 78 FR 49809 –49810 (August 15, 2013); 80 FR 77434 (December 14, 2015).
[20] As described in the Response to Comments document accompanying this action, we have also determined that additional waivers are not appropriate to address either severe economic or severe environmental harm.

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2. 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 on his own motion. 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.

In the October 4 notice, EPA sought comment on the possible use of the general waiver authority to reduce volumes of advanced biofuel and total renewable fuel for the 2018 standards below the levels proposed in the 2018 NPRM.[21] The October 4 notice provided information on historic domestic production, imports, and exports of advanced biofuel, as well as additional information, and sought comment on how that information could inform a potential determination of inadequate domestic supply or severe economic harm.

Based on an evaluation of supply and potential economic impact of the volumes of advanced and total renewable fuel that result after use of the cellulosic waiver authority, comments from stakeholders, and as further discussed in Section V, EPA is not using the general waiver authority on the basis of severe economic or environmental harm or inadequate domestic supply to further reduce those volumes for 2018. EPA's response to comments addressing possible use of the general waiver authority are provided in a memorandum to the docket[22] and in the Response to Comments (RTC) document accompanying this action.

3. Biomass-Based Diesel Waiver Authority

Section 211(o)(7)(E)(ii) of the CAA provides that if EPA determines that there is a significant renewable feedstock disruption or other market circumstance that would make the price of BBD increase significantly, EPA shall, in consultation with the Secretary of Energy, and the Secretary of Agriculture, issue an order to reduce, for up to a 60-day period, the annual volume requirement for BBD by an appropriate quantity that does not exceed 15 percent. The statute also stipulates that EPA is authorized to reduce applicable volumes of advanced biofuel and total renewable fuel by the same or a lesser volume than the reduction in BBD.

In the October 4 notice, EPA sought comment on potential interpretations of this authority, as well as the potential use of the BBD waiver authority to reduce the 2018 volume requirement for BBD by as much as 315 million gallons, and to concurrently reduce the advanced biofuel and total renewable fuel volume requirements by as much as 473 million gallons. The notice provided information on the price of biodiesel in light of the expiration of the

[21] See 82 FR 46174 (October 4, 2017).
[22] "Assessment of waivers for severe economic harm or BBD prices for 2018," memorandum from David Korotney to docket EPA-HQ-OAR-2017-0091.

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federal tax credit, and the potential imposition of new duties on imports of biodiesel from Argentina and Indonesia.

As described in the RTC document, EPA has determined that it would not be appropriate at this time to use the BBD waiver authority. Based on information provided in comments, as well its own analysis discussed in Section V, EPA believes that there is an insufficient basis to support a finding that the biomass based diesel prices currently in the marketplace, or reasonably anticipated in the immediate future, represent a "significant" increase in prices that would justify use of this waiver authority.

B. Treatment of Carryover RINs

Consistent with our approach in the 2013, 2014-16, and 2017 final rules, we have also considered the availability and role of carryover RINs in evaluating whether we should exercise our discretion to use the cellulosic waiver authority in setting the cellulosic, advanced, and total volume requirements for 2018. Neither the statute nor EPA regulations specify how or whether EPA should consider the availability of carryover RINs in exercising the cellulosic waiver authority.[23] As noted in the context of the rules establishing the 2014-16 and 2017 RFS standards, we believe that a bank of carryover RINs is extremely important in providing obligated parties compliance flexibility in the face of substantial uncertainties in the transportation fuel marketplace, and in providing a liquid and well-functioning RIN market upon which success of the entire program depends.[24] Carryover RINs provide flexibility in the face of a variety of circumstances that could limit the availability of RINs, including weather-related damage to renewable fuel feedstocks and other circumstances potentially affecting the production and distribution of renewable fuel.[25] On the other hand, carryover RINs can be used for compliance purposes, 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.[26] EPA's approach to the consideration of carryover RINs in exercising our cellulosic waiver authority was affirmed in *Monroe Energy* and *ACE*.[27]

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[23] CAA section 211(o)(5) requires that EPA establish a credit program as part of its RFS regulations, and that the credits be valid to show compliance for 12 months as of the date of generation. EPA implemented this requirement though the use of RINs, which 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 use of these carryover RINs is limited to 20% 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, if the volume of the collective carryover RIN bank is to remain unchanged from 2017 to 2018, then all of the vintage 2017 carryover RINs must be used for compliance in 2018, or they will expire. However, the same volume of 2018 RINs can then be "banked" for use in the next year.

[24] See 80 FR 77482-87 (December 14, 2015) and 81 FR 89754-55 (December 12, 2016).

[25] See id., and 72 FR 23900 (May 1, 2007).

[26] See 79 FR 49794 (August 15, 2013).

[27] *Monroe Energy v. EPA*, 750 F.3d 909 (D.C. Cir. 2014), *ACE* at 713.

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In the 2018 NPRM, EPA estimated that the size of the carryover RIN bank was then approximately 2.06 billion carryover RINs (including all D codes).[28] We proposed that in light of this relatively limited volume and the important functions provided by the RIN bank, that we would not set the volume requirements for 2018 in a manner that would intentionally lead to a drawdown in the bank of carryover RINs. In their comments on the 2018 NPRM, parties generally expressed two opposing points of view. Commenters representing obligated parties supported EPA's proposed decision to not assume a drawdown in the bank of carryover RINs in determining the appropriate volume requirements. These commenters reiterated the importance of maintaining the carryover RIN bank in order to provide obligated parties with necessary compliance flexibilities, better market trading liquidity, and a cushion against future program uncertainty. Commenters representing renewable fuel producers, however, contended that carryover RINs represent actual supply and should be accounted for when establishing the annual volume standards. These commenters stated that not accounting for carryover RINs goes against Congressional intent of the RFS program, deters investment in next-generation biofuels, and ignores other programmatic buffers and flexibilities such as carry-forward deficits and small refinery hardship exemptions.[29]

1. Updated Projection of Carryover RIN Volume

Based on currently available information, our estimate of the carryover RIN bank has increased to 2.22 billion RINs, an increase of 160 million RINs from the previous estimate of 2.06 billion carryover RINs in the 2018 NPRM.[30] Part of the update considers small refinery hardship exemptions for 2016 that were granted since the 2018 NPRM was issued. These additional small refinery hardship exemptions led to the return to the RIN marketplace of approximately 125 million 2016 RINs that would otherwise have been required for compliance by the small refineries granted an exemption for 2016.

The carryover RIN volume is 11.5 percent of the total renewable fuel volume requirement that EPA is finalizing for 2018, which is less than the 20 percent maximum limit permitted by the regulations to be carried over for use in complying with the 2018 standards.[31] However, there remains considerable uncertainty surrounding this number for a number of reasons, including the possible impact of an action to address the remand in *ACE*, the possibility of additional small refinery exemptions, and the impact of 2017 RFS compliance on the bank of carryover RINs. In addition, 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

[28] This was an increase of 520 million RINs from the previous estimate of 1.54 billion carryover RINs in the 2017 final rule. This increase in the carryover RIN bank compared to that projected in the 2017 final rule was not due to an underestimate by EPA in the amount of gasoline, diesel fuel, or ethanol that was consumed in 2016, but rather was driven almost entirely by a combination of over-compliance by biodiesel producers facing an expiring biodiesel tax credit at the end of 2016 and approximately 390 million RINs that small refineries granted a hardship exemption for 2016 were not required to retire.

[29] A full description of comments received, and our detailed responses to them, is available in the Response to Comments document in the docket.

[30] The calculations performed to estimate the number of carryover RINs currently available can be found in the memorandum, "Carryover RIN Bank Calculations for 2018 Final Rule," available in the docket.

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

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invalid RINs and/or the failure to retire RINs for exported renewable fuel. Future enforcement actions could have similar results, and require that obligated parties and/or renewable fuel exporters settle past enforcement-related obligations in addition to the annual standards, thereby potentially creating demand for RINs greater than can be accommodated through actual renewable fuel blending in 2018. Collectively, the result of satisfying RFS obligations in 2017 and settling enforcement-related accounts could be an effective reduction in the size of the collective bank of carryover RINs. In light of these uncertainties, it is possible that the net result would be a bank of carryover RINs larger or smaller than 11.5 percent of the final 2018 total renewable fuel volume requirement.

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

EPA has decided to maintain the proposed approach, and not set the volume requirements in the final rule with the intention or expectation of drawing down the current bank of carryover RINs. In addition, we do not believe that the availability of carryover RINs, together with the potential supply of renewable fuel in volumes higher than we are requiring though this final rule, should lead us to increase the volume requirements. In finalizing this approach, we carefully considered the comments received, including on the role of carryover RINs under our waiver authorities and the policy implications of our decision. While we have not assumed an intentional drawdown in the overall bank of carryover RINs owned by obligated parties collectively in establishing the volume requirements for 2018, we understand that some obligated parties may choose to sell or use all or part of their individual banks of carryover RINs. To the extent that they do, other obligated parties would be in a position to bank carryover RINs by using available renewable fuel or purchasing RINs representing such fuel, with the expected net result that the standards adopted in this action will have no effect on the size of the overall bank of carryover RINs that is owned collectively by obligated parties.[32]

We believe that a balanced consideration of the possible role of carryover RINs in achieving the statutory volume objectives for advanced and total renewable fuels, versus maintaining an adequate bank of carryover RINs for important programmatic functions, is appropriate when EPA exercises its discretion under the cellulosic waiver authority, and that the statute does not specify the extent to which EPA should require a drawdown in the bank of carryover RINs when it exercises this authority.

An adequate RIN bank serves to make the RIN market liquid. Just as the economy as a whole functions best when individuals and businesses prudently plan for unforeseen events by maintaining inventories and reserve money accounts, we believe that the RFS program functions best 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 no 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

[32] We expect that any renewable fuel produced in the U.S. that is not used to satisfy the 2018 renewable fuel standards will be exported, thereby not leading to an increase in the bank of 2018 RINs or carryover RINs.

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to all volumes of transportation fuel, including the unexpected volumes) could lead to the need for a new waiver of the standards, undermining the market certainty so critical to the RFS program. However, a significant drawdown of the carryover RIN bank leading to a scarcity of RINs may stop the market from functioning in an efficient manner (i.e., one in which there are a sufficient number of reasonably available RINs for obligated parties seeking to purchase them), even where the market overall could satisfy the standards. For all of these reasons, the collective carryover RIN bank provides a needed programmatic buffer that both facilitates individual compliance and provides for smooth overall functioning of the program.[33] We have evaluated the volume of carryover RINs likely available for 2018, and we believe it is prudent not to intentionally draw down this volume of carryover RINs in establishing the 2018 standards. In addition, we have considered whether the current bank of carryover RINs, together with the additional supply of renewable fuel available in 2018 above the levels we are requiring be used, would justify reduced use of the cellulosic waiver authority. For the reasons described above and in Sections IV.C and D, we do not believe this to be the case.

Therefore, for the reasons noted above, and consistent with the approach we took in the 2014-2016 and 2017 final rules, we are making a determination that, under current circumstances, an intentional drawdown of the carryover RIN bank should not be assumed in establishing the 2018 volume requirements. In addition, we do not believe that the presence of the current bank of carryover RINs, together with additional potential supplies of renewable fuel in 2018, justifies reduced use of the cellulosic waiver authority in setting the 2018 advanced biofuel and total renewable fuel volumes. However, we note that we may or may not take a similar approach in future years; we will assess the situation on a case-by-case basis going forward, and take into account the size of the carryover RIN bank in the future and any lessons learned from implementing past rules.

[33] Here we use the term "buffer" as shorthand reference to all of the benefits that are provided by a sufficient bank of carryover RINs.

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III. Cellulosic Biofuel Volume for 2018

In the past several years the cellulosic biofuel industry has continued to make progress towards increased commercial-scale production. Cellulosic biofuel production reached record levels in 2016, driven largely by CNG and LNG derived from biogas. Production volumes have continued to increase in 2017.[34] While multiple large cellulosic ethanol facilities struggled to achieve production rates consistent with their nameplate capacity, several facilities consistently produced cellulosic ethanol from corn kernel fiber at a smaller scale during 2016 and 2017. This section describes our assessment of the volume of cellulosic biofuel that we project will be produced or imported into the U.S. in 2018, and some of the uncertainties associated with those volumes.

In the July NPRM, EPA proposed cellulosic volumes based on a methodology that differed in a couple of important ways from the approach we used in 2017. We proposed changes to the percentile values used to project liquid cellulosic biofuel production and a new industry-wide methodology for projecting the production of CNG/LNG derived from biogas. For this action, we are finalizing volumes for 2018 based on an approach that is similar, but not identical, to what we proposed. We discuss the changes we made from proposal to final below. In our RTC document, we respond to the multiple comments EPA received on the changes to the cellulosic projection methodology we proposed in July.

In order to project the volume of cellulosic biofuel production in 2018 we considered EIA's projection of cellulosic biofuel production,[35] comments received on the 2018 NPRM, data reported to EPA through EMTS, and information we collected through meetings with representatives of facilities that have produced or have the potential to produce qualifying volumes of cellulosic biofuel for consumption as transportation fuel, heating oil, or jet fuel in the U.S. in 2018. There are two main parts to this projection. To project the range of potential production volumes of liquid cellulosic biofuel we used the same methodology as the methodology used in the 2017 final rule. However, we have adjusted the percentile values used to select a point estimate within a projected production range for each group of companies based on recent information, and with the objective of improving the accuracy of the projections. To project the production of cellulosic biofuel RINs for CNG/LNG derived from biogas we use the methodology discussed in the proposed rule with updated data. This methodology reflects the mature status of this industry, the large number of facilities registered to generate cellulosic biofuel RINs from these fuels, and EPA's continued attempts to refine its methodology to yield estimates that are as accurate as possible. This methodology is an improvement on the methodology that EPA used to project cellulosic biofuel production for CNG/LNG derived from biogas in the 2017 final rule. EPA has updated the list of potential cellulosic biofuel producers, projected facility start-up dates, facility capacities, production volumes, and other relevant information with the most recent information available. The methodologies used to project the production of liquid cellulosic biofuels and cellulosic CNG/LNG derived from biogas are described in more detail in Sections III.D-1 and III.D-2 below.

[34] The majority of the cellulosic RINs generated for CNG/LNG are sourced from biogas from landfills; however, the biogas may come from a variety of sources including municipal wastewater treatment facility digesters, agricultural digesters, separated MSW digesters, and the cellulosic components of biomass processed in other waste digesters.
[35] "Letter from EIA to EPA on 2018 projected volumes," available in docket EPA-HQ-OAR-2017-0091.

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After a brief description of the statutory requirements in Section III.A, we discuss the companies the EPA reviewed in the process of projecting qualifying cellulosic biofuel production in the U.S. in 2018 in Section III.B. Section III.C discusses the projection of cellulosic biofuel production provided to EPA by EIA, and Section III.D discusses the methodologies used by EPA to project cellulosic biofuel production in 2018 and the resulting projection of 288 million ethanol-equivalent gallons.

A. Statutory Requirements

The volumes of renewable fuel to be produced and used as transportation fuel under the RFS program each year (absent an adjustment or waiver by EPA) are specified in CAA section 211(o)(2)(B)(i)(III). The volume of cellulosic biofuel specified in the statute for 2018 is 7.0 billion gallons. The statute provides that if EPA determines, based on a letter provided to the EPA by EIA, that the projected volume of cellulosic biofuel production in a given year is less than the statutory volume, then EPA shall reduce the applicable volume of cellulosic biofuel to the projected volume available during that calendar year.[36]

In addition, if EPA reduces the required volume of cellulosic biofuel below the level specified in the statute, the Act also indicates that we may reduce the applicable volumes of advanced biofuels and total renewable fuel by the same or a lesser volume, and we are required to make cellulosic waiver credits available.[37] Our consideration of the 2018 volume requirements for advanced biofuel and total renewable fuel is presented in Section IV.

B. Cellulosic Biofuel Industry Assessment

In order to project cellulosic biofuel production for 2018, we have tracked the progress of several dozen potential cellulosic biofuel production facilities. As we have done in previous years, we have focused on facilities with the potential to produce commercial-scale volumes of cellulosic biofuel rather than small research and development (R&D) or pilot-scale facilities. Larger commercial-scale facilities are much more likely to generate RINs for the fuel they produce and the volumes they produce will have a far greater impact on the cellulosic biofuel standard for 2018. The volume of cellulosic biofuel produced from R&D and pilot-scale facilities is quite small in relation to that expected from the commercial-scale facilities. R&D and demonstration-scale facilities have also generally not generated RINs for the fuel they have produced in the past. Their focus is on developing and demonstrating the technology, not producing commercial volumes. RIN generation from R&D and pilot-scale facilities in previous

[36] The U.S. Court of Appeals for the District of Columbia Circuit evaluated this requirement in *API v. EPA* 706 F.3d 474, 479-480 (DC Cir. 2013), in the context of a challenge to the 2012 cellulosic biofuel standard. The Court stated that in projecting potentially available volumes of cellulosic biofuel EPA must apply an "outcome-neutral methodology" aimed at providing a prediction of "what will actually happen."
[37] See 40 CFR 80.1456.

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years has not contributed significantly to the overall number of cellulosic RINs generated.[38] We have therefore not considered production from R&D and pilot-scale facilities in our projection of cellulosic biofuel production for 2018.

From this list of commercial-scale facilities we used information from EMTS, publicly available information (including press releases and news reports), comments on the 2018 NPRM, information from EIA, and information provided by representatives of potential cellulosic biofuel producers, to make a determination of which facilities are most likely to produce liquid cellulosic biofuel and generate cellulosic biofuel RINs in 2018. Each of these companies was investigated further in order to determine the current status of its facilities and its likely cellulosic biofuel production and RIN generation volumes for 2018. Both in our discussions with representatives of individual companies and as part of our internal evaluation process we gathered and analyzed information including, but not limited to, the funding status of these facilities, current status of the production technologies, anticipated construction and production ramp-up periods, facility registration status, and annual fuel production and RIN generation targets.

As an initial matter, it is useful to review the success of EPA's recent cellulosic biofuel projections. EPA used a consistent methodology to project cellulosic biofuel production in the final three months of 2015 and in 2016 and 2017.[39] The record of actual production indicates that EPA's projection was lower than the actual number of cellulosic RINs made available in 2015,[40] and higher than the actual number of RINs made available in 2016.[41] While we currently only have data available through September 2017, it appears likely that the number of cellulosic RINs made available in 2017 will fall short of EPA's projection in our 2017 final rule.[42] The fact that the projections made using this methodology have been somewhat inaccurate, under-estimating the actual number of RINs made available in 2015 and over-estimating in 2016 and (most likely) 2017, reflects the inherent difficulty with projecting cellulosic biofuel production. It also emphasizes the importance of continuing to make refinements to our projection methodology in an effort to produce accurate projections.

EPA's projections of liquid cellulosic biofuel were higher than the actual volume of liquid cellulosic biofuel produced in both 2015 and 2016, and appear likely to be higher than actual

[38] While a few small R&D and pilot scale facilities have registered as cellulosic RIN generators, total production from each of these facilities from 2011 through September 2017 has been less than 150,000 RINs. This is approximately 1% of all liquid cellulosic biofuel production through September 2017.

[39] This methodology is most recently described in the 2017 final rule. See 81 FR 89746, 89755 (December 12, 2016).

[40] EPA only projected cellulosic biofuel production for the final three months of 2015, since data on the availability of cellulosic biofuel RINs (D3+D7) for the first nine months of the year were available at the time the analyses were completed for the final rule.

[41] EPA projected that 123 million and 230 million cellulosic RINs would be generated in 2015 and 2016, respectively. The number of available cellulosic RINs in these years (RINs generated minus RINs retired for non-compliance reasons) was 140 and 190 million RINs. See "Assessment of the Accuracy of Cellulosic Biofuel Production Projections in 2015 and 2016 (June 2017 Update)," memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2017-0091 for more detail.

[42] Additional information on our current projection of cellulosic biofuel production for 2017 can be found in "Calculating the Percentile Values Used to Project Liquid Cellulosic Biofuel Production," memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2017-0091.

liquid cellulosic biofuel production in 2017. We believe this recent data warrants a change to the percentile values used to project liquid cellulosic biofuel from the percentile values used in prior years in an effort to take into account the most recent data available and make the projections for 2018 more accurate. We are therefore adjusting the percentile values used to project liquid cellulosic biofuel production based on actual liquid cellulosic biofuel production in 2016 and through September 2017. Use of this updated data also results in different percentile values than we proposed to use for 2018. We believe that the use of the methodology (described in the 2018 NPRM and in Section III.D.1 below), with the adjusted approach to developing the percentile values used to project production volumes for liquid cellulosic biofuels, results in a projection that reflects a neutral aim at accuracy since it accounts for expected growth in the near future by using historical data that is free of any subjective bias.

In previous years, we used the same general methodology for CNG/LNG derived from biogas as for liquid cellulosic biofuel, but used different percentile values to project CNG/LNG derived from biogas and liquid cellulosic biofuels, reflecting the more established nature of the CNG/LNG industry relative to liquid cellulosic biofuel production. For 2018, EPA proposed using an industry-wide approach, rather than an approach that projects volumes for individual companies or facilities, to project the production of CNG/LNG derived from biogas. This updated approach reflects the fact that this industry is far more mature than the liquid cellulosic biofuel industry, and that there are a large number of facilities registered to generate cellulosic biofuel RINs from biogas, rendering a facility-by-facility analysis difficult and unnecessary for purposes of accuracy.[43] As described in Section III.D.2 below, EPA is instead calculating a year-over-year rate of growth in the renewable CNG/LNG industry by comparing RIN generation for CNG/LNG derived from biogas from October 2015 – September 2016 to the RIN generation for these same fuels from October 2016 – September 2017 (the most recent month for which data are available. We then apply this year-over-year growth rate to the total number of cellulosic RINs available for compliance from CNG/LNG in 2016 (the most recent year for which complete data are available), to estimate the production of CNG/LNG derived from biogas in 2018.[44]

The remainder of this section discusses the companies and facilities EPA expects to be in a position to produce commercial-scale volumes of cellulosic biofuel by the end of 2018 and describes in more detail the methodology EPA is using to project cellulosic biofuel production in 2018 (including a review of cellulosic biofuel production and the accuracy of the projection methodology in previous years).

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[43] EPA received a large number of affidavits from companies that produce (or intend to produce) CNG/LNG derived from biogas as comments on our proposed rule. These affidavits are publicly available as part of the comments submitted by the Coalition for Renewable Natural Gas. EPA reviewed and considered the information contained in these affidavits in establishing the required volume of cellulosic biofuel for 2018. These affidavits confirmed that it was reasonable to believe that the relatively high year-over-year rate of growth used to project volumes of CNG/LNG derived from biogas for 2018 could be achieved based on a number of project expansions and new projects expected to begin producing CNG/LNG derived from biogas in 2018.

[44] Historically RIN generation for CNG/LNG derived from biogas has increased each year. It is possible, however, that RIN generation for these fuels in the most recent 12 months for which data are available could be lower than the preceding 12 months. We believe our methodology accounts for this possibility. In such a case, the calculated rate of growth would be negative.

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1. Potential Domestic Producers

There are a number of companies and facilities[45] located in the U.S. that have either already begun producing cellulosic biofuel for use as transportation fuel, heating oil, or jet fuel at a commercial scale, or are anticipated to be in a position to do so at some time during 2018. The financial incentive provided by cellulosic biofuel RINs,[46] combined with the facts that to date nearly all cellulosic biofuel produced in the U.S. has been used domestically[47] and all the domestic facilities we have contacted in deriving our projections intend to produce fuel on a commercial scale for domestic consumption and plan to use approved pathways, gives us a high degree of confidence that cellulosic biofuel RINs will be generated for any fuel produced by domestic commercial scale facilities. In order to generate RINs, each of these facilities must be registered with EPA under the RFS program and comply with all the regulatory requirements. This includes using an approved RIN-generating pathway and verifying that their feedstocks meet the definition of renewable biomass. Most of the domestic companies and facilities considered in our assessment of potential cellulosic biofuel producers in 2018 have already successfully completed facility registration, and many have successfully generated RINs.[48] A brief description of each of the domestic companies (or group of companies for cellulosic CNG/LNG producers) that EPA believes may produce commercial-scale volumes of RIN generating cellulosic biofuel by the end of 2018 can be found in a memorandum to the docket for this final rule.[49] General information on each of these companies or group of companies considered in our projection of the potentially available volume of cellulosic biofuel in 2018 is summarized in Table III.B.3-1 below.

2. Potential Foreign Sources of Cellulosic Biofuel

In addition to the potential sources of cellulosic biofuel located in the U.S., there are several foreign cellulosic biofuel companies that may produce cellulosic biofuel in 2018. These include facilities owned and operated by Beta Renewables, Enerkem, Ensyn, GranBio, and Raizen. All of these facilities use fuel production pathways that have been approved by EPA for cellulosic RIN generation provided eligible sources of renewable feedstock are used and other

[45] The volume projection from CNG/LNG producers does not represent production from a single company or facility, but rather a group of facilities utilizing the same production technology.
[46] According to data from Argus Media, the price for 2017 cellulosic biofuel RINs averaged $2.73 in 2017 (through September 2017). Alternatively, obligated parties can obtain a RIN value equivalent to a cellulosic biofuel RIN by purchasing an advanced (or biomass-based diesel) RIN and a cellulosic waiver credit. The price for 2017 advanced biofuel RINs averaged $1.00 in 2017 (through September 2017) while the price for a 2017 cellulosic waiver credit is $2.00.
[47] The only known exception was a small volume of fuel produced at a demonstration scale facility exported to be used for promotional purposes.
[48] Many of the facilities listed in Table III.B.3-1 are registered to produce cellulosic (D3 or D7) RINs with the exception of several of the producers of CNG/LNG derived from biogas, many of the facilities projected to produce cellulosic ethanol using Edeniq's technology, Enerkem's Edmonton facility, and Ensyn's Port-Cartier, Quebec facility.
[49] "Cellulosic Biofuel Producer Company Descriptions (November 2017)," memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2017-0091.

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regulatory requirements are satisfied. These companies would therefore be eligible to register their facilities under the RFS program and generate RINs for any qualifying fuel imported into the U.S. While these facilities may be able to generate RINs for any volumes of cellulosic biofuel they import into the U.S., demand for the cellulosic biofuels they produce is expected to be high in their own local markets.

EPA is charged with projecting the volume of cellulosic biofuel that will be produced or imported into the U.S.[50] For the purposes of this final rule we have considered all of the registered foreign facilities under the RFS program to be potential sources of cellulosic biofuel in 2018. We believe that due to the strong demand for cellulosic biofuel in local markets, the significant technical challenges associated with the operation of cellulosic biofuel facilities, and the time necessary for potential foreign cellulosic biofuel producers to register under the RFS program and arrange for the importation of cellulosic biofuel to the U.S., cellulosic biofuel imports from foreign facilities not currently registered to generate cellulosic biofuel RINs are generally highly unlikely in 2018. For purposes of our 2018 cellulosic biofuel projection we have, with two exceptions (described below), excluded potential volumes from foreign cellulosic biofuel production facilities that are not currently registered under the RFS program.

Cellulosic biofuel produced at four foreign facilities (Ensyn's Renfrew facility, GranBio's Brazilian facility, and the CNG/LNG facilities Complexe Enviro Progressive Ltee and Saint-Thomas Biomethane Plant) generated cellulosic biofuel RINs for fuel exported to the U.S. in 2017; projected volumes from each of these facilities are included in our projection of available volumes for 2018. EPA has also included projected volume from two foreign facilities (Enerkem's Canadian facility and Ensyn's Port-Cartier, Quebec facility) that are not currently registered to generate cellulosic biofuel RINs under the RFS program. We believe that it is appropriate to include volume from these facilities in light of their proximity to the U.S., the proven technology used by these facilities, the volumes of cellulosic biofuel exported to the U.S. by the company in previous years (in the case of Ensyn), and the company's stated intentions to market fuel produced at these facilities to qualifying markets in the U.S. One additional foreign facility (Raizen's Costa Pinto) has registered as a cellulosic biofuel producer, but has not yet generated any cellulosic RINs. EPA attempted to contact representatives from this facility to inquire about their intentions to export cellulosic biofuel to the U.S. in 2018, but received no response. We have therefore not projected any cellulosic biofuel exports from this facility to the U.S. in 2018. All of the facilities included in EPA's cellulosic biofuel projection for 2018 are listed in Table III.B.3-1 below.

3. Summary of Volume Projections for Individual Companies

[50] EPA has consistently interpreted the "projected volume of cellulosic biofuel production" required in CAA section 211(o)(7)(D) to include volumes of cellulosic biofuel likely to be made available in the United States, including from both domestic production and imports (see 80 FR 77420 (December 14, 2015) and 81 FR 89746 (December 12, 2016)). We do not believe it would be reasonable to include in the projection all cellulosic biofuel produced throughout the world, regardless of likelihood of import to the United States, since volumes that are not imported would not be available to obligated parties for compliance and including them in the projection would render the resulting volume requirement and percentage standards unachievable.

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General information on each of the cellulosic biofuel producers (or group of producers in the case of producers of CNG/LNG derived from biogas and liquid cellulosic biofuel facilities using Edeniq's technology) that factored into our projection of cellulosic biofuel production for 2018 is shown in Table III.B.3-1. This table includes both facilities that have already generated cellulosic RINs, as well as those that have not yet generated cellulosic RINs, but are projected to do so by the end of 2018. As discussed above, we have focused on commercial-scale cellulosic biofuel production facilities. Each of these facilities (or group of facilities) is discussed further in a memorandum to the docket.[51] In addition to the facilities (or groups of facilities) discussed in Table III.B.3-1 below, EPA is aware of an additional technology that may be used to produce qualifying cellulosic biofuel in 2018. Multiple companies, in addition to Edeniq and Quad County Corn Processors, are working to commercialize technology to convert corn kernel fiber to cellulosic ethanol at existing corn ethanol facilities. At this point, however, none of these other companies have successfully registered a facility to generate cellulosic RINs using their technology.[52] In light of the significant challenges associated with accurately and reliably determining the conversion of cellulosic feedstocks to biofuel in processes that simultaneously convert both cellulosic and non-cellulosic feedstocks, EPA has included volumes of cellulosic biofuel associated with the simultaneous conversion of corn kernel fiber and corn starch only in cases where the facilities intend to use a technology with a methodology for quantifying the volume of ethanol produced form the cellulosic fraction of corn fiber that has been approved by EPA (Quad County Corn Processors and facilities using Edeniq's technology).

[51] "Cellulosic Biofuel Producer Company Descriptions (November 2017)," memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2017-0091.

[52] A significant issue that must be resolved to register a facility to produce cellulosic biofuel from corn kernel fiber at an existing ethanol production facility is the quantification of the volume of ethanol produced from cellulosic feedstocks rather than non-cellulosic feedstocks such as starch. Until these companies develop a methodology for quantifying cellulosic biofuel production that is approved by EPA we do not believe it is appropriate to include an estimate of cellulosic biofuel production from these facilities in our projection of cellulosic biofuel production in 2018.

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Table III.B.3-1
Projected Producers of Cellulosic Biofuel by 2018

Company Name	Location	Feedstock	Fuel	Facility Capacity (Million Gallons per Year)[53]	Construction Start Date	First Production[54]
CNG/LNG Producers [55]	Various	Biogas	CNG/ LNG	Various	N/A	August 2014
Edeniq	Various	Corn Kernel Fiber	Ethanol	Various	Various	October 2016
Enerkem	Edmonton, AL, Canada	Separated MSW	Ethanol	10[56]	2012	September 2017[57]
Ensyn	Renfrew, ON, Canada	Wood Waste	Heating Oil	3	N/A	2014
Ensyn	Port-Cartier, QC, Canada	Wood Waste	Heating Oil	10.5	June 2016	January 2018
GranBio	São Miguel dos Campos, Brazil	Sugarcane bagasse	Ethanol	21	Mid 2012	September 2014
Poet-DSM	Emmetsburg, IA	Corn Stover	Ethanol	20	March 2012	4Q 2015
QCCP	Galva, IA	Corn Kernel Fiber	Ethanol	4	Late 2013	October 2014

[53] The Facility Capacity is generally equal to the nameplate capacity provided to EPA by company representatives or found in publicly available information. If the facility has completed registration and the total permitted capacity is lower than the nameplate capacity then this lower volume is used as the facility capacity. For companies generating RINs for CNG/LNG derived from biogas the Facility Capacity is equal to the lower of the annualized rate of production of CNG/LNG from the facility at the time of facility registration or the sum of the volume of contracts in place for the sale of CNG/LNG for use as transportation fuel (reported as the actual peak capacity for these producers).
[54] Where a quarter is listed for the first production date EPA has assumed production begins in the middle month of the quarter (i.e., August for the 3rd quarter) for the purposes of projecting volumes.
[55] For more information on these facilities see "November 2017 Assessment of Cellulosic Biofuel Production from Biogas (2018)," memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2017-0091.
[56] The nameplate capacity of Enerkem's facility is 10 million gallons per year. However, we anticipate that a portion of their feedstock will be non-biogenic MSW. RINs cannot be generated for the portion of the fuel produced from non-biogenic feedstocks. We have taken this into account in our production projection for this facility.
[57] This date reflects the first production of ethanol from this facility. The facility began production of methanol in 2015.

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C. Projection from the Energy Information Administration

Section 211(o)(3)(A) of the CAA requires EIA to "...provide to the Administrator of the Environmental Protection Agency an estimate, with respect to the following calendar year, of the volumes of transportation fuel, biomass-based diesel, and cellulosic biofuel projected to be sold or introduced into commerce in the U.S." EIA provided these estimates to EPA on October 11, 2017.[58] With regard to cellulosic biofuel, the EIA estimated that the available volume in 2018 would be 13 million gallons.

In their letter, EIA did not identify the facilities on which their estimate of cellulosic biofuel production was based. EIA did, however, indicate in their letter that they included neither estimates of cellulosic biofuel produced by foreign entities and imported into the U.S., nor estimates of cellulosic heating oil or CNG/LNG produced from biogas, which together represent approximately 96 percent of our projected cellulosic biofuel volume for 2017. When limiting the scope of our projection to the companies assessed by EIA, we note that while our volume projections are not identical, they are very similar. EPA projects approximately 10 million gallons of liquid cellulosic biofuel will be produced domestically in 2017 (when excluding heating oil, as EIA did in their estimate of cellulosic biofuel production). EIA did not provide detail on the basis of their projections, so we cannot say precisely why EPA and EIA's projections differ. We further note that if we used EIA's projections for domestic liquid cellulosic biofuel production without modification in place of our own assessment of these facilities the impact on the cellulosic biofuel standard overall for 2018 would be approximately 1%.[59]

D. Cellulosic Biofuel Volume for 2018

1. Liquid Cellulosic Biofuel

For our 2018 liquid cellulosic biofuel projection, we use the same general approach as we have in projecting these volumes in previous years. We begin by first categorizing potential liquid cellulosic biofuel producers in 2018 according to whether or not they have achieved consistent commercial scale production of cellulosic biofuel to date. Next we define a range of likely production volumes for 2018 for each group of companies. Finally, we use a percentile value to project from the established range a single projected production volume for each group of companies in 2018. As explained below, however, we are using a different approach to selection of the appropriate percentile values for purposes of this rule than we have used in prior years. In this final rule we have used the most recent data available to determine which facilities are likely to produce liquid cellulosic biofuel in 2018, categorize the companies according to whether or not they have consistently produced commercial scale volumes of liquid cellulosic biofuels, adjust the projected production range for each group of companies, and adjust the

[58] "Letter from EIA to EPA on 2018 projected volumes," available in docket EPA-HQ-OAR-2017-0091.
[59] If EPA increased our projection of liquid cellulosic biofuel produced in the United States in 2018 (excluding heating oil) to 13 million gallons to be consistent with EIA's projection our total projected volume of cellulosic biofuel would increase by 3 million gallons. This is approximately 1% of the total volume of cellulosic biofuel projected to be produced in 2018 (3/288 = 0.01).

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percentile values used for each group of companies. This methodology is briefly described here, and is described in detail in memos to the docket.[60]

Consistent with our approach in previous years, we separated the list of potential producers of cellulosic biofuel (listed in Table III.B.3-1) into two groups according to whether or not the facilities have achieved consistent commercial-scale production and cellulosic biofuel RIN generation. We next defined a range of likely production volumes for each group of potential cellulosic biofuel producers. The low end of the range for each group of producers reflects actual RIN generation data over the last 12 months for which data are available at the time our technical assessment was completed (October 2016 – September 2017). For potential producers that have not yet generated any cellulosic RINs, the low end of the range is zero. For the high end of the range of production volumes for companies expected to produce liquid cellulosic biofuel we considered a variety of factors, including the expected start-up date and ramp-up period,[61] facility capacity. The projected range for the groups of companies considered in our 2018 cellulosic biofuel projection are shown in Tables III.D.1-1 and III.D.1-2 below.[62]

Table III.D.1-1
2018 Production Ranges for Liquid Cellulosic Biofuel Producers without Consistent Commercial Scale Production (million gallons)

Companies Included	Low End of the Range	High End of the Range[a]
Facilities using Edeniq's technology (new facilities), Enerkem, Ensyn (Port Cartier facility)	0	47

[a]Rounded to the nearest million gallons.

[60] "November 2017 Liquid Cellulosic Biofuel Projections for 2018 CBI" and "Calculating the Percentile Values Used to Project Liquid Cellulosic Biofuel Production," memorandums from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2017-0091.

[61] As in our 2015-2017 projections, EPA calculated a high end of the range for each facility (or group of facilities) based on the expected start-up date and a six-month straight line ramp-up period. The high end of the range for each facility (or group of facilities) is equal to the value calculated by EPA using this methodology, or the number of RINs the producer expects to generate in 2018, whichever is lower.

[62] More information on the data and methods EPA used to calculate each of the ranges in these tables in contained in "November 2017 Liquid Cellulosic Biofuel Projections for 2018 CBI" memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2017-0091. Unlike in previous years, we have not shown the projected ranges for each individual company. This is because the high end of the range for some of these companies are based on the company's production projections, which they consider confidential business information (CBI). Additionally, the low end of the range for facilities that have achieved consistent commercial scale production is based on actual RIN generation data in the most recent 12 months, with is also claimed as CBI. EPA has included additional information on the calculations used to define the production ranges, including the production ranges for each individual company or facility, in a memo to the docket.

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Table III.D.1-2
2018 Production Ranges for Liquid Cellulosic Biofuel Producers with Consistent Commercial Scale Production (million gallons)

Companies Included	Low End of the Range[a]	High End of the Range[b]
Facilities using Edeniq's technology (active facilities), Ensyn (Renfrew facility), Poet-DSM, GranBio, Quad County Corn Processors	7	24

a Rounded to the nearest million gallons

After defining likely production ranges for each group of companies we next considered the percentile values to use in projecting a production volume for each group of companies. In the proposed rule, we used the 1st and 43rd percentile to project production from facilities that had not yet achieved consistent commercial scale production of liquid cellulosic biofuels and those that had, respectively, based on data indicating what percentile of production from within the 2016 projected range facilities included in our 2016 cellulosic biofuel projection actually achieved. However, for this final rule we are adjusting the percentile values used to project liquid cellulosic biofuel production from within the range of projected production values, by using data on actual liquid cellulosic biofuel production from both 2016 and 2017 (through September). We believe an adjustment to the percentile values used to generate a projected production volume from the range of potential production volumes for each group of facilities is warranted. EPA's estimates for liquid cellulosic biofuel exceeded actual production of liquid cellulosic biofuel in both 2015 and 2016.[63] Further, as discussed in the NPRM we are considering additional RIN generation data from 2017 that was not available for the NPRM in this final rule. While we currently only have cellulosic biofuel production data through September 2017, additional data available from months after the release of our proposed rule suggests that further changes to the percentile values used in the NPRM are likely to result in more accurate projections of cellulosic biofuel production in 2018. We believe that the adjusted percentile values used in this final rule will improve the accuracy of the production projection and will further EPA's objective to project volumes with a "neutral aim at accuracy."

The projected ranges for liquid cellulosic biofuel production in 2016, along with the percentile values used to project a production volume within the calculated ranges the actual number of cellulosic RINs generated in 2016 that are available for compliance, and the percentile values that would have resulted in a projection equal to the actual production volume are shown in Table III.D.1-3 below.

[63] EPA notes that once standards are set based on these projections, cellulosic biofuel RINs can be generated for either type of cellulosic biofuel. Cellulosic biofuel RINs generated for liquid biofuels and CNG/LNG derived from biogas can be used to satisfy an obligated party's cellulosic biofuel obligation. There are no separate standards for liquid and gaseous cellulosic biofuels.

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Table III.D.1-3
Projected and Actual Liquid Cellulosic Biofuel Production in 2016 (million gallons)

	Low End of the Range	High End of the Range	Percentile (2016 FRM)	Projected Production	Actual Production[64]	Actual Percentile
New Facilities	0	76	25th	19	1.06	1st
Consistent Producers[65]	2	5	50th	4	3.28	43rd

Since the actual production in 2016 was lower than the projected production for both new facilities and consistent producers, we determined that for the purposes of our proposed rule it would be appropriate to adjust the percentiles to attempt to make them more accurate. To this end, EPA calculated the percentile values that would have resulted in accurate production projections in 2016 based on the actual number of cellulosic biofuel RINs generated for liquid cellulosic biofuels and available for compliance in 2016. These calculated percentile values are the 1st percentile for new facilities (replacing in the NPRM the 25th percentile used for 2016 and 2017) and the 43rd percentile for consistent producers (replacing in the NPRM the 50th percentile used for 2016 and 2017). These percentile values, however, do not reflect the updated production data EPA has from liquid cellulosic biofuel producers in 2017.

EPA currently only has data on cellulosic biofuel production in 2017 through the end of September. While we believe that any final assessment of the accuracy of a projection method cannot be made until complete data for the year are available, we nevertheless believe it is appropriate to consider data from 2017 and adjust the percentile values used in the final rule as appropriate. To calculate the percentile values that would have resulted in a projection equal to the actual production volume for 2017 we first need to project the volume of cellulosic biofuel that will be produced in the 4th quarter of 2017 for each group of facilities.[66] EPA projected cellulosic biofuel production in the 4th quarter of 2017 by first comparing cellulosic biofuel production in the 4th quarter of 2016 to the cellulosic biofuel production in the first 3 quarters of 2016. In 2016, cellulosic biofuel production in the 4th quarter (1.25 million gallons) was 40 percent of cellulosic biofuel production in the first 3 quarters (3.09 million gallons). We then used this factor, together with actual production data from the first 3 quarters of 2017 to project

[64] Actual production is calculated by subtracting RINs retired for any reason other than compliance with the RFS standards from the total number of cellulosic RINs generated.
[65] In the 2014-2016 Annual Rule EPA categorized Ensyn and Quad County Corn Processors as consistent cellulosic biofuel producers for 2016. All other companies were categorized as new facilities. This is in contrast to 2018, for which EPA has categorized additional facilities as consistent cellulosic biofuel producers.
[66] Unlike in the case of CNG/LNG derived from biogas, discussed in Section III.D.2 below, EPA can only use calendar years, rather than consecutive 12 month periods to evaluate the accuracy of the percentile values used in our projections in previous years. This is because the percentile values are used in conjunction with the calculated ranges to produce production estimates. The ranges were defined for the purpose of projecting cellulosic biofuel production in the context of our annual rules and therefore are specific to calendar years. Since production in any calendar year is not expected to be consistent (i.e., with equal production volumes each month) it is not possible to use the projected ranges from two calendar years to generate a range for a 12 month period that spans two calendar years.

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cellulosic biofuel production in the 4th quarter of 2017.[67] The projected ranges for liquid cellulosic biofuel production in 2017, , along with the percentile values used to project a production volume within the calculated ranges, the actual number of cellulosic RINs generated in 2017 that are available for compliance, and the percentile values that would have resulted in a projection equal to the actual production volume are shown in Table III.D.1-4 below. Note that the percentile value that would have resulted in the projected volume of cellulosic biofuel in 2017 is negative, as the projected volume is lower than the low end of the range from the 2017 final rule.

Table III.D.1-4
Projected and Actual Liquid Cellulosic Biofuel Production in 2017 (million gallons) (through September)

	Low End of the Range	High End of the Range	Percentile (2017 FRM)	Projected Production (2017 FRM)	Projected Production (2018 FRM)[68]	Actual Percentile
New Facilities	0	33	25th	8	6.07	18th
Consistent Producers[69]	3.5	7	50th	5	2.85	-18th

The liquid cellulosic biofuel production data from 2017 indicates that adjustments to the percentile values used to project cellulosic biofuel production within the calculated range are appropriate. For this final rule EPA has projected cellulosic biofuel production from facilities that have not yet achieved consistent commercial scale production at the 10th percentile of the calculated range and projected cellulosic biofuel production from facilities that have achieved commercial scale production at the 12th percentile.[70] These percentiles are calculated by averaging the percentiles that would have produced cellulosic biofuel projections equal to the volumes produced by each group of companies in 2016 and 2017, as shown in Table III.D.1-5 below. We have not considered data from years prior to 2016, as prior to 2016 a different methodology was used to project available volumes of cellulosic biofuel. In determining the percentile values to use for 2018 we have decided to weight the observed actual percentile values

[67] More detail on these calculations can be found in "November 2017 Liquid Cellulosic Biofuel Projections for 2018 CBI" memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2017-0091.
[68] This number includes an updated projection of cellulosic biofuel production for each group of facilities in the 4th quarter of 2017 as described in the preceding paragraph. Note that the low end of the potential production range for companies that have achieved consistent commercial scale production (7 million gallons) is based on the most recent 12 months for which data is available (October 2016 – September 2017) while the projected production number in this table is our current projection for calendar year 2017 based on RIN generation data through September 2017.
[69] In the 2014-2016 Annual Rule, EPA categorized Ensyn and Quad County Corn Processors as consistent cellulosic biofuel producers for 2016. All other companies were categorized as new facilities. This is in contrast to 2018, for which EPA has categorized additional facilities as consistent cellulosic biofuel producers.
[70] The percentile value for 2018 for facilities that have not yet achieved consistent commercial scale production (10th percentile) is higher than the percentile used in the proposed rule (1st percentile) but lower than the percentile used in the 2017 rule (25th percentile). The percentile value for 2018 for facilities that have achieved consistent commercial scale production (12th percentile) is lower than both the percentile used in both the proposed rule (43rd percentile) and the percentile used in the 2017 rule (50th percentile).

from 2016 and 2017 equally. While the percentile value from 2017 represents the most recent data available, it is also dependent on a projection of the volume of cellulosic biofuel that will be produced in the 4th quarter of 2017. Conversely, the percentile values from 2016 are calculated using actual data for the full year, however this data is older and may not reflect the current state of cellulosic biofuel production technologies and commercial scale facilities as data from 2017. We believe that an average of these percentile values appropriately incorporate the data available to EPA at the time of this rulemaking to project liquid cellulosic biofuel production with a neutral aim at accuracy. We will continue to monitor the accuracy of our projection methodology and will use updated data to adjust the percentile values and/or other elements of our methodology as appropriate.[71]

Table III.D.1-5
Percentile Values that Would Have Produced Accurate Projection in 2016 and 2017

	2016	2017	Average (Used to Project Volume in 2018)
New Facilities	1st	18th	10th
Consistent Producers	43rd	-18th	12th

Finally, we used these percentile values, together with the ranges determined for each group of companies discussed above, to project a volume for each group of companies in 2018. These calculations are summarized in Table III.D.1-6 below.

Table III.D.1-6
Projected Volume of Liquid Cellulosic Biofuel in 2018
(million gallons)

	Low End of the Range[a]	High End of the Range[a]	Percentile	Projected Volume[a]
Liquid Cellulosic Biofuel Producers; Producers without Consistent Commercial Scale Production	0	47	10th	5
Liquid Cellulosic Biofuel Producers; Producers with Consistent Commercial Scale Production	7	24	12th	9
Total	N/A	N/A	N/A	14

[a] Volumes rounded to the nearest million gallons

EPA also considered whether it would be appropriate to modify other individual components of the past methodology for projecting liquid cellulosic biofuel based on a narrow consideration of each factor, but we do not believe that such changes are warranted. Making the adjustment to the percentile values used in the methodology while keeping other components of

[71] Additional information on the calculation of the percentile values for 2016 and 2017 can be found in "Calculating the Percentile Values Used to Project Liquid Cellulosic Biofuel Production," memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2017-0091.

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the methodology constant should, we believe, provide an appropriate refinement of the methodology that reflects recent experience. We acknowledge, however, that using the calculated percentile values from previous years to project liquid cellulosic biofuel production in future years does not eliminate the possibility that actual production will differ from our projections. This is especially true for the liquid cellulosic biofuel industry, which is currently in the early stages of commercialization. Nevertheless, based on the record before us, we believe the ranges of projected production volumes for each company (or group of companies for those using the Edeniq technology) are reasonable, and that projecting overall production in 2018 in the manner described above results in a neutral estimate (neither biased to produce a projection that is too high or too low) of likely liquid cellulosic biofuel production in 2018 (14 million gallons).

2. CNG/LNG Derived from Biogas

For 2018, EPA is using a new methodology to project production of CNG/LNG derived from biogas used as transportation fuel. We believe a new methodology is warranted for purposes of this rule for two primary reasons: the over-projection of CNG/LNG derived from biogas in 2016 (and the likely over-projection of CNG/LNG derived from biogas in 2017), and the relative maturity of the CNG/LNG industry relative to the liquid cellulosic biofuel industry. EPA's projection of the production of CNG/LNG derived from biogas in 2016 was 207 million ethanol-equivalent gallons. Actual production of cellulosic biofuel RINs for CNG/LNG derived from biogas that were available for compliance in 2016 was 185 million gallons, indicating that the approach we took to projecting CNG/LNG derived from biogas in 2016 resulted in an overestimate by 22 million ethanol-equivalent gallons (12 percent). Similarly, EPA's projection of the production of CNG/LNG derived from biogas in 2017 was 298 million ethanol-equivalent gallons. Actual production of cellulosic biofuel RINs for CNG/LNG derived from biogas that has been produced in 2017 (through the end of September, the most recent month for which data are available) is 151 million gallons. While data for all of 2017 are not available at this time, and despite the observed historical pattern of higher RIN generation for CNG/LNG derived from biogas in the latter months of the year relative to the earlier months of the year, the available data strongly suggests that actual RIN generation from CNG/LNG derived from biogas in 2017 is likely to fall short of our projections in the 2017 final rule. RIN generation of CNG/LNG derived from biogas from January 2017 – September 2017 is 22 percent higher than RIN generation in the same months in 2016. In order to meet the projected volume for 2017 (298 million gallons), however, RIN generation in the remainder of 2017 would need to be 58 percent higher in 2017 than the total RIN generation from these fuels in 2016.

EPA received many comments on our proposed approach to projecting production of CNG/LNG derived from biogas in 2018. Some commenters critiqued EPA's calculation of a year-over-year rate of growth based on production during the first five months of 2017 (relative to production in the first five months of 2016) and suggested that EPA use updated production data in the final rule, or that EPA calculate the annual rate of growth based on comparisons of time periods no less than 12 months. Many commenters characterized EPA's proposed approach as inappropriately "backwards looking," and claimed that while this approach may adequately project production from facilities that are currently producing CNG/LNG derived from biogas it

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did not adequately consider the new facilities the industry expects will begin production in 2018. Many of these commenters provided facility specific information on facilities capable of producing CNG/LNG derived from biogas in 2018 for both facilities that are currently producing CNG/LNG and those that expect to begin producing in 2018.[72] Many of these commenters requested that EPA use the facility by facility approach used by EPA in our 2017 final rule to project the production of CNG/LNG derived from biogas in 2018.

In this final rule EPA has used updated data in projecting the production of CNG/LNG derived from biogas, consistent with our stated intentions in the proposed rule and as requested by several commenters. At the time the analyses were performed for this final rule, EPA had data available through the end of September 2017. EPA has adjusted our calculated year-over-year rate of growth based on this new data. EPA also agrees with commenters who stated that it is more appropriate to calculate a year-over-year rate of growth using a full year's (12 months) worth of data, as this captures any seasonality and would (in future years) minimize the opportunity for producers of CNG/LNG derived from biogas to attempt to influence the projected growth rate for the next year by intentionally shifting production to particular months of the year.

For this final rule, EPA has calculated the year-over-year growth rate in CNG/LNG derived from biogas by comparing RIN generation from October 2016 – September 2017 (the most recent 12 months for which data are available) to RIN generation in the 12 months that immediately precede this time period (October 2015 – September 2016). These RIN generation volumes are shown in Table III.C.2-1 below.

Table III.D.2-1
Generation of Cellulosic Biofuel RINs for CNG/LNG Derived from Biogas (million gallons)

RIN Generation (October 2015 – September 2016)	RIN Generation (October 2016 – September 2017)	Year-Over-Year Increase
177.28	215.52	21.6%

EPA then applied this 21.6 percent year-over-year growth rate to the total number of 2016 cellulosic RINs generated for CNG/LNG that were available for compliance (185.14 million) to project the production of cellulosic RINs from these fuels in 2017, and then repeated the calculation to arrive at a projection for 2018. This methodology results in a projection of 273.6 million gallons of CNG/LNG derived from biogas in 2018.[73] We believe that projecting the production of CNG/LNG derived from biogas in this manner appropriately takes into consideration the actual recent rate of growth of this industry, and that this growth rate accounts

[72] The Coalition for Renewable Natural Gas collected and submitted a large number of affidavits from project owners and operators of facilities that are currently producing CNG/LNG derived from biogas, as well as those that anticipate beginning production in 2018. Many of these affidavits are publicly available in the docket, while others have claimed these submissions as confidential business information.

[73] To calculate this value, EPA multiplied the total number of 2016 RINs generated for CNG/LNG derived from biogas and available for compliance by 1.216 (representing a 21.6% year-over-year increase), and then multiplied the product by 1.216 a second time (to project the annual production volume in 2018, rather than 2017). The number 2016 of RINs generated for CNG/LNG derived from biogas and available for compliance (185.14) is based on EMTS data.

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for both the potential for future growth and the challenges associated with increasing RIN generation from these fuels in future years. While this methodology may not be appropriate to use once the projected volume of CNG/LNG derived from biogas approaches the total volume of CNG/LNG that is used as transportation fuel, this is not currently a constraint as our projection for 2018 is well below the total volume of CNG/LNG that is currently used as transportation fuel.[74] The comments submitted to EPA on our proposed rule contained information related to a number of production facilities expected to begin producing CNG/LNG derived from biogas in 2018 (and the final few months of 2017). Although commenters generally believed that this information supported a different approach for projecting production of CNG/LNG derived from biogas in 2018, we believe that these comments generally support our projection of CNG/LNG for 2018, insofar as they demonstrate that there is reason to expect that the significant rate of growth observed in the production of CNG/LNG derived from biogas in recent years will continue throughout 2018.

EPA disagrees with commenters who claimed that a facility-by-facility approach to projecting cellulosic RIN generation for CNG/LNG derived from biogas would necessarily result in a more accurate projection than an industry-wide projection methodology. We continue to believe that in case of nascent industries with a small number of participants, such as the liquid cellulosic biofuel industry, industry wide projection methodologies may be inappropriate as they do not capture the specific circumstances that may impact each participant. In industries where the number of participants is small, failing to adequately assess each individual participant can have a significant impact on the overall accuracy of industry projections. However, as the number of market participants grows the impact of any single participant on the overall performance of the industry decreases. In these cases, industry-wide projection methods are more accurate than a more individualized approach, especially as macro market and economic factors become more influential on total production than the success or challenges at any single facility.

Further, the accuracy of a facility by facility approach to projecting production is heavily dependent on the accuracy of the information available to EPA on the projected RIN generation volumes of each of the potential production facilities for 2018. Conversely, the market wide approach used by EPA in this final rule relies on actual RIN generation data, rather than individual company projections for 2018, to calculate a demonstrated rate of growth. As the number of potential production facilities increases, EPA's ability to verify the accuracy of the information we receive, and make a determination about the likelihood that the producers will produce CNG/LNG derived from biogas at the projected levels decreases. This is especially challenging in situations where there are a large number of potential producers that have previously overestimated the actual production from their facilities. In our 2017 final rule, EPA projected that 26 new facilities would begin producing CNG/LNG derived from biogas in 2017,

[74] EPA projects that 580 million ethanol-equivalent gallons of CNG/LNG will be used as transportation fuel in 2018 based on EIA's October 2017 Short Term Energy Outlook (STEO). To calculate this estimate, EPA used the Natural Gas Vehicle Use from the STEO Custom Table Builder (0.12 billion cubic feet/day in 2018). This projection includes all CNG/LNG used as transportation fuel from both renewable and non-renewable sources. EIA does not project the amount of CNG/LNG from biogas used as transportation fuel. To convert billion cubic feet/day to ethanol-equivalent gallons EPA used conversion factors of 1020 BTU per cubic foot of natural gas and 77,000 BTU of natural gas per ethanol-equivalent gallon.

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largely based on information we received from the renewable CNG/LNG industry through the Coalition for Renewable Natural Gas. While we currently only have data available for the first 9 months of 2017, to date only two new facilities have generated cellulosic RINs for CNG/LNG derived from biogas in 2017. While additional new facilities may generate cellulosic RINs for CNG/LNG derived from biogas in the final 3 months of 2017, many projected that they would be producing cellulosic RINs by this point in the year, and it is highly unlikely that all 26 of these facilities will successfully generate cellulosic RINs by the end of 2017. The failure of these new facilities to generate cellulosic RINs in 2017, together with the over-projection by many of the facilities that have generated cellulosic RINs in 2017 resulted in the facility specific approach recommended by many commenters appearing to have significantly over-estimated the production of CNG/LNG in 2017. EPA has therefore used an alternative methodology based on actual production data in previous years, rather than production projections by individual facilities, to project production of CNG/LNG derived from biogas in this final rule. We believe the production of CNG/LNG derived from biogas has matured to a point where an industry wide projection methodology is more appropriate than a facility by facility approach, and is likely to result in a more accurate projection. We will monitor the success of this new approach, and will make appropriate modifications in the future if warranted.

We also disagree with commenters who claim that our proposed projection methodology does not appropriately account for new facilities expected to begin producing CNG/LNG derived from biogas in 2018. The methodology used by EPA in this final rule compared the total projection of CNG/LNG derived from biogas from October 2016 – September 2017 to production in the 12 months that immediately precede this time period (October 2015 – September 2016). The production increases observed in October 2016 – September 2017, as compared to the preceding 12 months, were the result of both increased production from facilities that had previously produced CNG/LNG derived from biogas as well as production from facilities that had not previously produced this fuel. For example, from October 2015 – September 2016 a total of 34 facilities generated cellulosic RINs for CNG/LNG derived from biogas. From October 2016 – September 2017 the number of facilities that produced cellulosic RINs for CNG/LNG derived from biogas increased to 41. We believe, therefore, that while our projection methodology uses a growth rate based on historical data it adequately anticipates higher production volumes in future years, including both increased production from existing facilities as well as production from new facilities. In this way it is a forward, rather than backward looking methodology that satisfies our charge to project future cellulosic biofuel production in a reasonable manner, and with neutrality.

3. Total Cellulosic Biofuel in 2018

After projecting production of cellulosic biofuel from liquid cellulosic biofuel production facilities and producers of CNG/LNG derived from biogas, EPA combined these projections to project total cellulosic biofuel production for 2018. These projections are shown in Table III.D.3-1. Using the methodologies described in this section, we project that 288 million ethanol-equivalent gallons of cellulosic biofuel will be produced in 2018. We believe that projecting overall production in 2018 in the manner described above results in a neutral estimate

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(neither biased to produce a projection that is too high nor too low) of likely cellulosic biofuel production in 2018.

Table III.D.3-1
Projected Volume of Cellulosic Biofuel in 2018
(million gallons)

	Projected Volume[a]
Liquid Cellulosic Biofuel Producers; Producers without Consistent Commercial Scale Production	5
Liquid Cellulosic Biofuel Producers; Producers with Consistent Commercial Scale Production	9
CNG/LNG Derived from Biogas	274
Total	288

[a] Volumes rounded to the nearest million gallons

Further discussion of the individual companies we believe will produce cellulosic biofuel and make it commercially available in 2018 can be found in a memorandum to the docket.[75]

[75] "Cellulosic Biofuel Producer Company Descriptions (November 2017)," memorandum from Dallas Burkholder to EPA Air Docket EPA-HQ-OAR-2017-0091. In the case of cellulosic biofuel produced from CNG/LNG and facilities using Edeniq's technology we have discussed the production potential from these facilities as a group rather than individually.

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IV. Advanced Biofuel and Total Renewable Fuel Volumes for 2018

The national volume targets for advanced biofuel and total renewable fuel to be used under the RFS program each year through 2022 are specified in CAA section 211(o)(2)(B)(i)(I) and (II). Congress set annual renewable fuel volume targets that envisioned growth at a pace that far exceeded historical growth and, for years after 2011, prioritized that growth as occurring principally in advanced biofuels (contrary to previous growth patterns where most growth was in conventional renewable fuel, principally corn-ethanol). Congressional intent is evident in the fact that the portion of the total renewable fuel volume target in the statutory volume tables that is not required to be advanced biofuel is 15 billion gallons for all years after 2014, while the advanced volumes, driven by growth in cellulosic volumes, continue to grow through 2022 to a total of 21 billion gallons.

In this Section we discuss our use of the discretion afforded by the cellulosic waiver authority at CAA section 211(o)(7)(D)(i) to reduce volumes of advanced biofuel and total renewable fuel. We first discuss our assessment of advanced biofuel and the considerations, including comments received in response to the proposal and October 4 notice, which have led us to conclude that the advanced biofuel volume target in the statute should be reduced by the full amount permitted under the cellulosic waiver authority. We then address total renewable fuel in the context of our interpretation, articulated in previous annual rulemakings, that advanced biofuel and total renewable fuel should be reduced by the same amount under the cellulosic waiver authority. In Section V we discuss our consideration of additional reductions for both advanced biofuel and total renewable fuel beyond those permitted under the cellulosic waiver authority, using other waiver authorities provided by the statute.

To begin, we have evaluated the capabilities of the market and are making a finding that the 11.0 billion gallons specified in the statute for advanced biofuel cannot be reached in 2018. This is primarily due to the expected continued shortfall in cellulosic biofuel; production of this fuel type has consistently fallen short of the statutory targets by 95 percent or more, and as described in Section III, we project that it will fall far short of the statutory target of 7.0 billion gallons again in 2018. In addition, although for the 2016 and 2017 standards we determined that the projected reasonably attainable supply of non-cellulosic advanced biofuel and other considerations justified establishing standards that included a partial backfill of the shortfall in cellulosic biofuel with advanced biofuel, for reasons described in this section we are reducing the advanced biofuel applicable volume by the full amount of the shortfall in cellulosic biofuel for 2018.

In previous years when exercising the cellulosic waiver authority to determine the required volume of advanced biofuel, we have taken into account the availability of advanced biofuels, their energy security and GHG impacts, and the apparent intent of Congress as reflected in the statutory volumes tables to substantially increase the use of advanced biofuels over time, as well as factors such as increased costs associated with the use of advanced biofuels and the environmental and food competition concerns raised by some commenters. In considering these factors, in those years, we have concluded that it was appropriate to set the advanced biofuel standard in a manner that would allow the partial backfilling of missing cellulosic volumes with non-cellulosic advanced biofuels. For purposes of this final rule we have again taken these

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factors into consideration, but rely more heavily on consideration of cost as a result of a stronger policy focus on the economic impacts of the RFS program to conclude that such backfilling with non-cellulosic advanced biofuel volumes should not be required in 2018. In other words, we are reducing the statutory volume target for advanced biofuel by the same amount as the reduction in cellulosic biofuel. This results in the non-cellulosic component of the advanced biofuel volume requirement being equal to the implied statutory volume of 4.00 billion gallons. We believe this new approach to balancing relevant considerations and exercising our discretion under the cellulosic waiver authority is permissible under the statute, and consistent with the principles articulated in *FCC v. Fox TV Stations* (556 US. 502, 514-15 (2009)), regarding circumstances when an agency may appropriately depart from prior policy. In making this final determination for 2018, we have considered comments on the appropriate balancing of factors under the cellulosic waiver authority that were provided by stakeholders in response to the proposal and the October 4 notice, as discussed in the accompanying RTC document.

We note that the predominant non-cellulosic advanced biofuels available in the near term are advanced biodiesel and renewable diesel.[76] We expect a decreasing rate of growth in the availability of feedstocks used to produce these fuel types. In addition, we expect diminishing GHG benefits and higher per gallon costs as the required volumes of advanced biodiesel and renewable diesel increase. These outcomes are a result of the fact that the lowest cost and most easily available feedstocks are typically used first, and each additional increment of advanced biodiesel and renewable diesel requires the use of feedstocks that are incrementally more costly and/or more difficult to obtain. Moreover, to the extent that higher advanced biofuel requirements cannot be satisfied through growth in the production of advanced biofuel feedstocks, they would instead be satisfied through a re-direction of such feedstocks from competing uses. Parties that were formerly using these feedstocks are likely to replace the advanced biofuel feedstocks with the lowest cost alternatives, likely derived from palm or petroleum sources, leading to lower overall GHG emission benefits. There would also likely be market disruptions and increased burden associated with shifting feedstocks among the wide range of companies that are relying on them today and which have optimized their processes to use them. Higher advanced biofuel standards could also be satisfied by diversion of foreign advanced biofuel from foreign markets, and there would likely be diminished benefits associated with such diversions. Taking these considerations into account, we believe, as discussed in more detail below, that we should not exercise our discretion under the cellulosic waiver authority to set the advanced biofuel volume requirement at a level that would lead to such diversions.

Furthermore, two other factors have added uncertainty regarding advanced biofuel volumes that are reasonably attainable and appropriate. The first is the fact that the tax credit for biodiesel has not been renewed, and if renewed could be in the form of a producer's tax credit rather than a blender's tax credit.[77] The second is the preliminary determination by the Department of Commerce that countervailing duties should be imposed on biodiesel imports from Argentina and Indonesia.[78]

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[76] While sugarcane ethanol can also contribute to the supply of advanced biofuel, in recent years, supply of sugarcane ethanol has been considerably lower than supply of advanced biodiesel or renewable diesel.
[77] See American Renewable Fuel and Job Creation Act of 2017, S.944, 115th Cong. (2017).
[78] "Commerce Finds Countervailable Subsidization of Imports of Biodiesel from Argentina and Indonesia," available in EPA docket number EPA-HQ-OAR-2017-0091.

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We believe that the factors and considerations noted above are all appropriately considered in our exercise of the broad discretion provided under the cellulosic waiver authority, and that a comprehensive consideration of these factors supports our use of the authority. Some of the considerations discussed in this final rule are related to the availability of non-cellulosic advanced biofuels (e.g., historic data on domestic supply, expiration of the biodiesel blenders' tax credit, potential imports of biodiesel in light of the Commerce Departments preliminary determination on countervailing duties on biodiesel imports from Argentina and Indonesia, potential imports of sugarcane ethanol, and anticipated decreasing growth in production of feedstocks for advanced biodiesel and renewable diesel), while others focus on the potential benefits and costs of requiring use of available volumes (e.g., relative cost of advanced biofuels to the petroleum fuels they displace, GHG reduction benefits and energy security benefits). Having determined that we should not exercise the discretion afforded EPA under the cellulosic waiver authority so as to require the use of advanced biofuel volumes that would lead to diversion of advanced feedstocks from other uses or diversion of advanced biofuels from foreign sources, our analytical approach to identifying the appropriate volume requirement is to first identify volumes that we believe would be reasonably attainable in 2018 without such feedstock or fuel diversions, and then discuss whether or not other considerations, such as cost and GHG impacts, indicate that it would be appropriate to set the advanced biofuel volume requirement so as to require use of such volumes to partially backfill for missing cellulosic volumes.

The net impact of our exercise of the cellulosic waiver authority is that after waiving the cellulosic biofuel volume down to the projected available level, and applying the same volume reduction to the statutory volume target for advanced biofuel, the resulting volume requirement for advanced biofuel for 2018 is 10 million gallons more than the applicable volume used to derive the 2017 percentage standard. Furthermore, after applying the same reduction to the statutory volume target for total renewable fuel, the volume requirement for total renewable fuel is also 10 million gallons more than the applicable volume used to derive the 2017 percentage standard. The remainder of this section provides our justification for this approach to the determination of the volume requirements for advanced biofuel and total renewable fuel. Section V discusses our consideration of further reductions in either advanced biofuel or total renewable fuel using either the general waiver authority or the BBD waiver authority, and our justification for not applying such further reductions.

A. Volumetric Limitation on Use of the Cellulosic Waiver Authority

As described in Section II.A, when making reductions in advanced biofuel and total renewable fuel under the cellulosic waiver authority, the statute limits those reductions to no more than the reduction in cellulosic biofuel. As described in Section III.D, we are establishing a 2018 applicable volume for cellulosic biofuel of 288 million gallons, representing a reduction of 6,712 million gallons from the statutory target of 7,000 million gallons. As a result, 6,711 million gallons is the maximum volume reduction for advanced biofuel and total renewable fuel that is permissible using the cellulosic waiver authority. Use of the cellulosic waiver authority to

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this maximum extent would result in volumes of 4.29 and 19.29 billion gallons for advanced biofuel and total renewable fuel, respectively.[79]

Table IV.A-1
Lowest Permissible Volumes
Using only the Cellulosic Waiver Authority (million gallons)

	Advanced biofuel	Total renewable fuel
Statutory target	11,000	26,000
Maximum reduction permitted under the cellulosic waiver authority	6,712	6,712
Lowest 2018 volume requirement permitted using only the cellulosic waiver authority	4,288	19,288

We are authorized under the cellulosic waiver authority to reduce the advanced biofuel and total renewable fuel volumes "by the same or a lesser" amount as the reduction in the cellulosic biofuel volume. As discussed in Section II.A, EPA has broad discretion in using the cellulosic waiver authority in instances where its use is authorized under the statute, since Congress did not specify factors that EPA must consider in determining whether to use the authority or what the appropriate volume reductions (within the range permitted by statute) should be. This broad discretion was affirmed in both *Monroe* and *ACE*.[80] Thus, EPA could potentially set the 2018 advanced biofuel standard at a level that is designed to partially backfill for the shortfall in cellulosic biofuel. As discussed below, doing so would result in perhaps an additional 110 million gallons of advanced biofuel. However, based on our consideration of the factors described in more detail below, we are using the full extent of the cellulosic waiver authority in deriving volume requirements for 2018.[81]

B. Reasonably Attainable Volumes of Advanced Biofuel

It is appropriate to consider the availability of advanced biofuel, both to inform our exercise of the cellulosic waiver authority and to ascertain whether there might be an "inadequate domestic supply" justifying use of the general waiver authority. As the Court noted in *ACE*, EPA may consider demand-side considerations in addition to supply-side considerations when it assesses "reasonably attainable" volumes for purposes of its cellulosic waiver assessment. However, EPA may not consider demand-side factors in assessing whether there is an

[79] When expressing volumes in billion gallons, we use standard rounding methods to two decimal places, as done in previous annual standard-setting rulemakings. Volumes are sometimes shown in million gallons for clarity, but it is volumes in billion gallons that are used to calculate the applicable percentage standards.
[80] See *ACE* at 730-35.
[81] We specify the volume requirements as billion gallons with two decimal places to be consistent with the volume targets as given in the statute. The only exception is for cellulosic biofuel which we specify in million gallons due to the substantial reduction from the statutory target. However, calculations are typically shown in million gallons for all four standards for clarity.

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"inadequate domestic supply" that would justify use of the general waiver authority.[82] Our assessment of reasonably attainable volumes of advanced biofuel is described below.

In *ACE*, the Court noted that in assessing what volumes are "reasonably attainable," EPA had considered the availability of feedstocks, domestic production capacity, imports, and market capacity to produce, distribute, and consume renewable fuel.[83] We are taking a similar approach for 2018, with the added consideration of the possibility that higher volume requirements would lead to "feedstock switching" or diversion of advanced biofuels from use in other countries, which we took into account in setting the 2017 volume requirements and, we believe, are appropriate considerations under the broad discretion provided by the cellulosic waiver authority.

As noted above, a higher advanced biofuel volume requirement has a greater potential to increase the incentive for switching advanced biofuel feedstocks from existing uses to biofuel production. Such market reactions could cause disruptions and/or price increases in the non-biofuel markets that currently use these feedstocks. Increasing the required volumes of advanced biofuels without giving the market adequate time to adjust by increasing supplies could also result in diversion of advanced biofuels from foreign countries to the U.S. without increasing total global volumes. We believe it is likely that the parties that formerly used advanced biofuel feedstocks would seek to replace the advanced biofuel feedstocks with the cheapest alternatives, likely products derived from palm oil or petroleum, rather than forgoing the use of oil-based products. Increasing volumes of advanced biofuels used in the U.S. in this way (by shifting the end use of advanced feedstocks to biofuel production and satisfying the current markets for these advanced feedstocks with non-qualifying or petroleum based feedstocks, or by simply shifting advanced biodiesel or renewable diesel from foreign to domestic use – referred to for simplicity as "feedstock/fuel diversions") would therefore likely not produce the GHG benefits that would otherwise be expected. We have decided not to set the advanced biofuel volume requirement at a level that would require such feedstock/fuel diversions. Our individual assessments of reasonably attainable volumes of advanced biofuels reflect this approach. That is, while we refer to them as "reasonably attainable" volumes for convenience, they represent those volumes that are not likely to lead to feedstock/fuel diversions. Greater volumes could likely be made available if such diversions were not of concern.

1. Imported Sugarcane Ethanol

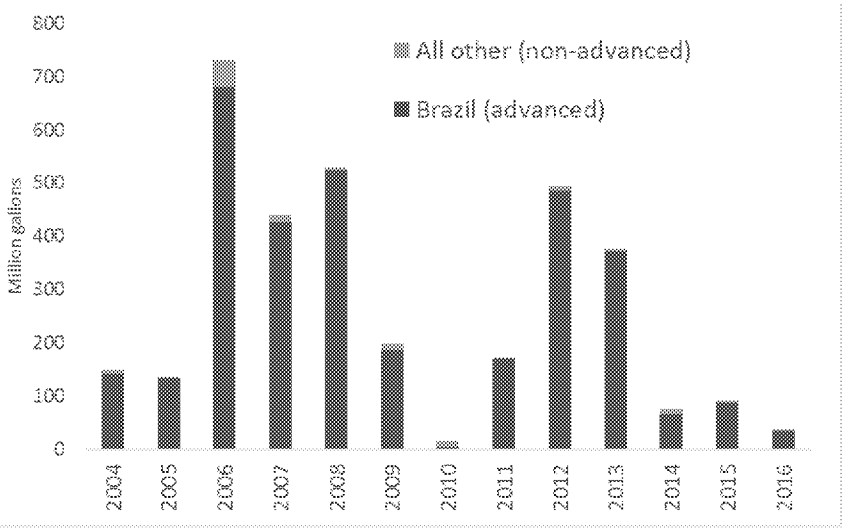
The predominant available source of advanced biofuel other than cellulosic biofuel and BBD is imported sugarcane ethanol. In setting both the 2016 and 2017 standards, we determined that 200 million gallons of imported sugarcane ethanol would be reasonably attainable. In deriving this estimate of sugarcane ethanol, we attempted to balance indications of lower potential imports from recent data with indications that higher volumes were possible based on older data. We also pointed to the high variability in ethanol import volumes in the past (including of Brazilian sugarcane ethanol, the predominant form of imported ethanol, and the only significant source of imported advanced ethanol), increasing gasoline consumption in

[82] See *ACE* at 734 and 696.
[83] *ACE* at 735-36.

Brazil, and variability in Brazilian production of sugar as reasons that it would be inappropriate to assume that sugarcane ethanol imports would reach the much higher levels suggested by some stakeholders.

The data on 2016 ethanol imports suggests that we overestimated the volume of sugarcane ethanol imports for that year. Despite the fact that the applicable standards for 2016 were set prior to the beginning of 2016, and despite suggestions from UNICA[84] that 2016 imports could reach as high as 2 billion gallons, total ethanol imports only reached 34 million gallons.

Figure IV.B.1-1
Historical Ethanol Imports[a]



Source: "US Imports of Fuel Ethanol from EIA," docket EPA-HQ-OAR-2017-0091.
[a] Imports from Brazil include those that are transmitted through the Caribbean Basin Initiative (CBI) and Central America Free Trade Agreement (CAFTA), and are produced from sugarcane. Imports from other countries are typically not produced from sugarcane and do not qualify as advanced biofuel.

Available data for imports in 2017 similarly suggests that imports are again likely to fall well below the 200 million gallons that we assumed when setting the 2017 standards; for January through August of 2017, total imports of sugarcane ethanol were 75 million gallons; by the end of 2017, total imports of sugarcane ethanol might be about 100 million gallons.[85] The combined experience for 2016 and 2017 suggests that 200 million gallons is too high for the purposes of projecting reasonably attainable volumes of advanced biofuel for 2018. At the same time, higher import volumes than those which occurred in 2016 are clearly possible, as reflected by imports seen in prior years. Taking all of these considerations into account, we are using 100 million gallons of imported sugarcane ethanol for the purposes of projecting reasonably attainable volumes of advanced biofuel for 2018. This level reflects a balancing of the information

[84] UNICA is the Brazilian Sugarcane Industry Association.
[85] "Imports of ethanol 2011 - 2017," available in docket EPA-HQ-OAR-2017-0091.

available to EPA at this time; both the lower import volumes that have occurred more recently with the higher volumes that are possible based on earlier years.

We note that the future projection of imports of sugarcane ethanol is inherently imprecise, and that actual imports in 2018 could be lower or higher than 100 million gallons. Factors that could result in import volumes below 100 million gallons include weather and harvests in Brazil, world ethanol demand and prices, and constraints associated with the E10 blendwall in the U.S. Also, global sugar consumption has continued to increase steadily, while production has decreased. If the trend continues, Brazilian production of sugar could increase, with a concurrent reduction in production of ethanol.[86] On the other hand, the world average price of sugar has been projected to remain relatively flat between 2016 and 2018, suggesting little change in sugar production and implying that ethanol production in Brazil might likewise remain unchanged.[87] After considering these factors, and in light of the high degree of variability in historical imports of sugarcane ethanol, we believe that 100 million gallons is a reasonable projection for 2018.

2. Biodiesel and Renewable Diesel

With regard to biodiesel and renewable diesel, there are many different factors that could potentially influence the *total* reasonably attainable volume of these fuels (including both advanced and non-advanced forms) used as transportation fuel or heating oil in the U.S.[88] These factors could include the availability of qualifying biodiesel and renewable diesel feedstocks, and the production capacity of biodiesel and renewable diesel facilities (both in the U.S. and internationally). The degree to which these and other factors may affect the total supply of both advanced and conventional forms of biodiesel and renewable diesel in 2018, is discussed in a memo to the docket.[89]

However, the primary considerations in our determination of the reasonably attainable volumes of *advanced* biodiesel and renewable diesel for 2018 are data on the use of advanced biodiesel and renewable diesel in previous years, the uncertain impact of the continued absence of the biodiesel tax credit and proposed tariffs on biodiesel from certain countries on biodiesel production and importation, the projected growth in production of advanced biodiesel and renewable diesel feedstocks in 2018.[90] A review of the volumes of advanced biodiesel and

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[86] "Sugar - World Markets and Trade," USDA, November 2016.
[87] "Commodity Markets Outlook," World Bank Group, January 2017.
[88] For a further discussion of the factors that influence the availability of biodiesel and renewable diesel see Section V.B.2 of the preamble and a further discussion of these factors from the 2017 final rule (81 FR 89781 – 89789, December 12, 2016).
[89] "Market impacts of biofuels," memorandum from David Korotney to docket EPA-HQ-OAR-2017-0091.
[90] Throughout this section we refer to advanced biodiesel and renewable diesel as well as advanced biodiesel and renewable diesel feedstocks. In this context, advanced biodiesel and renewable diesel refer to any biodiesel or renewable diesel for which RINs can be generated that satisfy an obligated party's advanced biofuel obligation (i.e., D4 or D5 RINs). An advanced biodiesel or renewable feedstock refers to any of the biodiesel, renewable diesel, jet fuel, and heating oil feedstocks listed in Table 1 to §80.1426 or in petition approvals issued pursuant to §80.1416, that can be used to produce fuel that qualifies for D4 or D5 RINs. These feedstocks include, for example, soy bean oil; oil from annual cover crops; oil from algae grown photosynthetically; biogenic waste oils/fats/greases; non-food grade corn oil; camelina sativa oil; and canola/rapeseed oil (See pathways F, G, and H of Table 1 to §80.1426).

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renewable diesel used in previous years is especially useful in projecting the potential for growth in the production and use of such fuels, since for these fuels there are a number of complex and inter-related factors beyond simply the total production capacity for biodiesel and renewable diesel and ability to distribute these fuels (including the availability of advanced feedstocks, the expiration of the biodiesel tax credit, and other market-based factors) that are likely to affect the total supply. We also believe the likely growth in production of feedstocks used to produce these fuels is an important factor to consider. This is because the energy security and GHG reduction value associated with the growth in the use of advanced biofuels is greater when that growth is associated with an increase in advanced feedstock production, rather than a switching of existing advanced feedstocks from other uses or the diversion of advanced biodiesel and renewable diesel from foreign markets if the parties that previously used the advanced biofuel or feedstocks replace these oils with low cost palm or petroleum derived products, as we believe would likely be the case in 2018. Such feedstock switching or fuel diversion could result in unintended negative consequences, such as market disruption in other markets where such oils are used, which could offset some of the anticipated benefits of the production and use of advanced biofuels.

The volume of advanced biodiesel and renewable diesel projected to be available based on a consideration of these factors is less than the maximum volume of biodiesel and renewable diesel we believe could be produced (based solely on an assessment of the available production capacity) or consumed (based on an assessment of the ability of the market to distribute and use biodiesel and renewable diesel). Production capacity and the ability for the market to distribute and use biodiesel and renewable diesel are therefore not constraining factors in our assessment of the reasonably attainable volume of advanced biodiesel and renewable diesel in 2018.

Before considering the projected growth in the production of qualifying feedstocks that could be used to produce advanced biodiesel and renewable diesel, it is helpful to review the volumes of biodiesel and renewable diesel that have been used in the U.S. in recent years. While historic data and trends alone are insufficient to project the volumes of biodiesel and renewable diesel that could be provided in future years, historic data can serve as a useful frame of reference in considering future volumes. Past experience suggests that a high percentage of the biodiesel and renewable diesel used in the U.S. (from both domestic production and imports) qualifies as advanced biofuel.[91] In previous years, biodiesel and renewable diesel produced in the U.S. has been almost exclusively advanced biofuel.[92] Imports of advanced biodiesel have increased in recent years, however, as seen in Table IV.B.2-1. Volumes of imported advanced biodiesel and renewable diesel have varied significantly from year to year, as they are impacted both by domestic and foreign policies, as well as economic factors.

[91] From 2011 through 2016 over 95% of all biodiesel and renewable diesel supplied to the U.S. (including domestically-produced and imported biodiesel and renewable diesel) qualified as advanced biodiesel and renewable diesel (9,372 million gallons of the 9,850 million gallons) according to EMTS data.
[92] From 2011 through 2016 over 99.9% of all the domestically produced biodiesel and renewable diesel supplied to the U.S. qualified as advanced biodiesel and renewable diesel (8,258 million gallons of the 8,265 million gallons) according to EMTS data.

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Table IV.B.2-1
Advanced (D4 and D5) Biodiesel and Renewable Diesel from 2011 to 2016
(Million Gallons)[a]

	2011	2012	2013	2014[b]	2015[b]	2016
Domestic Biodiesel (Annual Change)	967 (N/A)	1,014 (+47)	1,376 (+362)	1,303 (-73)	1,253 (-50)	1,633 (+380)
Domestic Renewable Diesel (Annual Change)	58 (N/A)	11 (-47)	92 (+81)	155 (+63)	175 (+20)	221 (+46)
Imported Biodiesel (Annual Change)	44 (N/A)	40 (-4)	156 (+116)	130 (-26)	261 (+131)	561 (+300)
Imported Renewable Diesel (Annual Change)	0 (N/A)	28 (+28)	145 (+117)	129 (-16)	121 (-8)	170 (+49)
Exported Biodiesel and Renewable Diesel (Annual Change)	48 (N/A)	102 (+54)	125 (+23)	134 (+9)	133 (-1)	129 (-4)
Total (Annual Change)	1021 (N/A)	991 (-30)	1,644 (+653)	1,583 (-61)	1,677 (+94)	2,456 (+779)

[a] All data for 2011-2016 from EMTS. EPA reviewed all advanced biodiesel and renewable diesel RINs retired for reasons other than demonstrating compliance with the RFS standards and subtracted these RINs from the RIN generation totals for each category in the table above to calculate the supply in each year.
[b] RFS required volumes for these years were not established until December 2015.

Table IV.B.2-2
Conventional (D6) Biodiesel and Renewable Diesel from 2011 to 2016 (Million Gallons)[a]

	2011	2012	2013	2014[b]	2015[b]	2016
Domestic Biodiesel (Annual Change)	0 (N/A)	0 (+0)	6 (+6)	1 (-5)	0 (+0)	0 (+0)
Domestic Renewable Diesel (Annual Change)	0 (N/A)	0 (+0)	0 (+0)	0 (+0)	0 (+0)	0 (+0)
Imported Biodiesel (Annual Change)	0 (N/A)	0 (+0)	31 (+31)	52 (+21)	74 (+22)	113 (+39)
Imported Renewable Diesel (Annual Change)	0 (N/A)	0 (+0)	53 (+53)	0 (-53)	106 (+106)	43 (-63)
Exported Biodiesel and Renewable Diesel (Annual Change)	0 (N/A)	0 (+0)	0 (+0)	0 (+0)	0 (+0)	1 (+1)
Total (Annual Change)	0 (N/A)	0 (+0)	90 (+90)	53 (-37)	180 (+127)	155 (-25)

[a] All data for 2011-2016 from EMTS. EPA reviewed all conventional biodiesel and renewable diesel RINs retired for reasons other than demonstrating compliance with the RFS standards and subtracted these RINs from the RIN generation totals for each category in the table above to calculate the supply in each year.
[b] RFS required volumes for these years were not established until December 2015.

Since 2011 the year-over-year changes in the volume of advanced biodiesel and renewable diesel in the U.S. have varied greatly, from a low of negative 61 million gallons from

2011 to 2012 to a high of 779 million gallons from 2015 to 2016. These changes were likely influenced by a number of factors such as the cost of biodiesel feedstocks and petroleum diesel, the status of the biodiesel blenders tax credit, growth in marketing of biodiesel at high volume truck stops and centrally fueled fleet locations, demand for biodiesel and renewable diesel in other countries, biofuel policies in both the U.S. and foreign countries, and the volumes of renewable fuels (particularly advanced biofuels) required by the RFS. This historical information does not indicate that the maximum previously observed increase of 779 million gallons of advanced biodiesel and renewable diesel would be reasonable to expect from 2017 to 2018, nor does it indicate that the low growth rates observed in other years represent the limit of potential growth in 2018. Rather, these data illustrate both the magnitude of the increases in advanced biodiesel and renewable diesel in previous years and the significant variability in these increases.

The historic data indicates that the biodiesel tax policy in the U.S. can have a significant impact on the supply of biodiesel and renewable diesel in any given year. While the biodiesel blenders tax credit has applied in each year from 2010 – 2016, it has only been in effect during the calendar year in 2011, 2013 and 2016, while other years it has been applied retroactively. The biodiesel blenders tax credit expired at the end of 2009 and was re-instated in December 2010 to apply retroactively in 2010 and extend through the end of 2011. Similarly, after expiring at the end of 2011, 2013, and 2014 the tax credit was re-instated in January 2013 (for 2012 and 2013), December 2014 (for 2014), and December 2015 (for 2015 and 2016). Each of the years in which the biodiesel blenders tax credit was in effect during the calendar year (2013 and 2016) resulted in significant increases in the supply of advanced biodiesel and renewable diesel over the previous year (653 million gallons and 779 million gallons respectively). However, following this large increase in 2013, the increase in the supply of advanced biodiesel and renewable diesel in 2014 and 2015 was minimal, only 33 million gallons from 2013 to 2015. This pattern is likely the result of both accelerated production and/or importation of biodiesel and renewable diesel in the final few months of 2013 to take advantage of the expiring tax credit as well as relatively lower volumes of biodiesel and renewable diesel production and import in 2014 and 2015 than would have occurred if the tax credit had been in place.[93]

We believe it is reasonable to anticipate a similar production pattern in 2016 through 2018 as observed in 2013 through 2015; that increases in the volumes of advanced biodiesel and renewable diesel will be modest in 2017 and 2018, following the significant increase in 2016. In 2013 the tax credit was in place through the entire year. This was followed by two years (2014 and 2015) in which the tax credit was not in place, but was eventually reinstated retroactively. Similarly, the tax credit in place through 2016, but at the time of this rulemaking not applicable to 2017 or 2018.[94] Available RIN generation data further supports this pattern. Very high volumes of advanced biodiesel and renewable diesel were supplied in the last quarter of 2016, likely driven by a desire to capture the expiring tax credit, while significantly smaller volumes of

[93] We also acknowledge that the fact that EPA did not finalize the required volumes of renewable fuel under the RFS program for 2014 and 2015 until December 2015 likely had an impact on the volume of advanced biodiesel and renewable diesel supplied in these years.

[94] At this time, it is uncertain whether the tax credit would be retroactively applied to 2017 or applied in any manner (prospectively or retroactively) in 2018.

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these fuels were supplied in the first quarter of 2017.[95] Data on advanced biodiesel and renewable diesel RIN generation in 2017 was available through September at the time the analyses were performed for this rulemaking. Our review of this data suggests that the generation of RINs for advanced biodiesel and renewable diesel in 2017 (through September) is slightly higher than RIN generation for these fuels during the same time period in 2016 (see Figure IV.B.2-1 below). Total 2016 RIN generation for advanced biodiesel and renewable diesel through September 2016 was 2.76 billion RINs, while total 2017 RIN generation for these fuels through September 2017 was 2.82 billion RINs. Total supply of advanced biodiesel and renewable diesel in 2016 was 2.46 billion gallons, suggesting that a total supply of approximately 2.5 billion gallons in 2017 (slightly higher than the volume supplied in 2016) is likely.[96] This is consistent with our projection of advanced biodiesel and renewable diesel in the 2017 rule (2.4 billion gallons) and expectations based on RIN generation patterns in previous years of modest increases in the supply of advanced biodiesel and renewable diesel in the years following the expiration of the biodiesel tax credit. This data also supports our expectation that the reasonably attainable volume of advanced biodiesel and renewable diesel in 2018 will reflect modest increases from the reasonably attainable volumes of these fuels in 2016 and 2017. It is not clear from this data whether or not higher RFS volume requirements alone would be sufficient to drive significant increases in the supply of advanced biodiesel and renewable diesel in the absence of a tax credit.

[95] According to data on EPA's public website, RINs were generated for 823 million gallons of biomass-based diesel in the last quarter of 2016 while RINs were generated for 444 million gallons of biomass-based diesel in the first quarter of 2017. The vast majority of advanced biodiesel and renewable diesel qualifies as biomass-based diesel.
[96] The supply of advanced biodiesel and renewable diesel in 2016 accounts for all RIN generation, as well as all RIN retirements for reasons other than compliance with the annual standards. At this time, we do not have sufficient data to compare RIN retirements for reasons other than compliance with the annual standards in 2017 to those in 2016, as this data often lags RIN generation by several months. However, at this time we have no reason to believe RINs retired for reasons other than compliance with the annual standards in 2017 would be significantly different that retirements for the same reasons in 2017.

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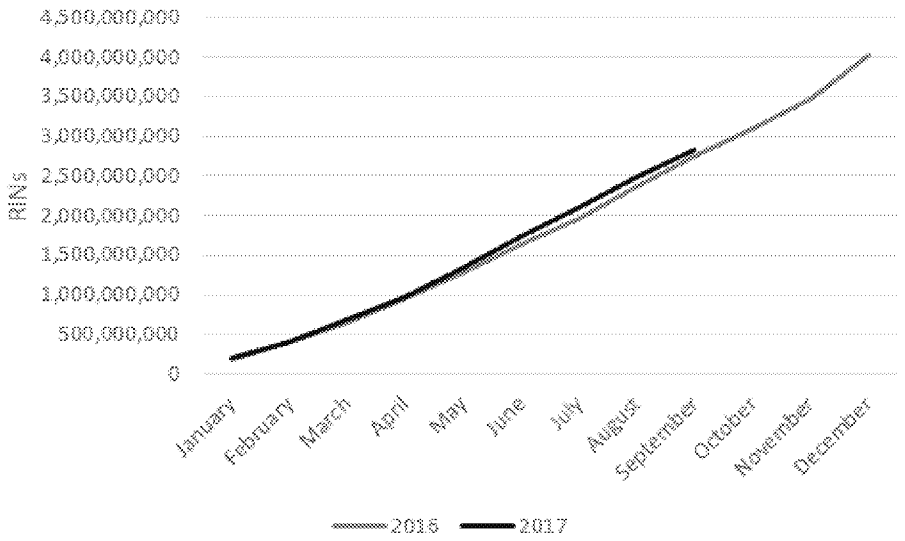
Figure IV.B.2-1
Cumulative RIN Generation for Advanced Biodiesel and Renewable Diesel (2016-2017)



After reviewing the historical supply of advanced biodiesel and renewable diesel and consideration of the possible impact of the expiration of the biodiesel tax credit (discussed above), EPA next considered the expected increase in the availability of advanced biodiesel and renewable diesel feedstocks in 2018. We acknowledge that an increase in the required use of advanced biodiesel and renewable diesel could be realized through a diversion of advanced feedstocks from other uses, or a diversion of advanced biodiesel and renewable diesel from existing markets in other countries. We perceive the net benefits associated with such increased advanced biofuel and renewable fuel volumes to be significantly less than the net benefits associated with the production of additional advanced biodiesel and renewable diesel with the use of newly-available advanced feedstocks due to the likelihood that parties that previously used advanced biofuel feedstocks will replace them with low cost palm or petroleum derived products. This is both because of the potential disruption and associated cost impacts to other industries resulting from feedstock switching, and a reduced GHG reduction benefit related to use of feedstocks for biofuel production that would have been used for other purposes and which must then be backfilled with other feedstocks with potentially greater GHG emissions. Similarly, increasing the supply of biodiesel and renewable diesel to the U.S. by diverting fuel that would otherwise have been used in other countries results in lesser GHG benefits than if the supply of these fuels was increased through additional biofuel production, especially if this diversion results in increased consumption of petroleum fuels in the countries that would have otherwise consumed the biodiesel or renewable diesel. By focusing our assessment of the potential growth in the reasonably attainable volume of biodiesel and renewable diesel on the expected growth in the production of advanced feedstocks (rather than the total supply of these feedstocks in 2018, which would include feedstocks currently being used for non-biofuel purposes), we are attempting to minimize the incentives for the RFS program to increase the supply of advanced biodiesel and renewable diesel through feedstock switching or diverting biodiesel and renewable diesel from foreign market to the U.S.

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Advanced biodiesel and renewable diesel feedstocks include both waste oils, fats and greases and oils from planted crops. While we believe a small increase in supply of waste oils, fats, and greases may be possible in 2018, we believe this increase is limited as most of these oils, fats, and greases are already being recovered and used in biodiesel and renewable diesel production or for other purposes. Many of the planted crops that supply vegetable oil for advanced biodiesel and renewable diesel production are primarily grown for purposes other than providing feedstocks for biodiesel and renewable diesel, such as for livestock feed with the oil that is used as feedstock for renewable fuel production a co-product or by-product.[97] This is true for soy beans and corn, which are the two largest sources of feedstock from planted crops used for biodiesel production in the U.S.[98] We do not believe that the increased demand for soybean oil or corn oil will result in an increase in soybean or corn prices large enough to induce significant changes in agricultural activity, at least for the relatively modest changes in advanced biodiesel and renewable diesel feedstock demand that we envision as a result of the RVOs we are finalizing in this rule. The vegetable oils produced are not the primary source of revenue for these crops, meaning that the planted acres of these crops are likely to be based on broader economic factors, rather than on demand for vegetable oil to produce biofuels or for other markets.

Increasing the demand for advanced biodiesel and renewable diesel beyond the volumes that could be made from the projected increase in the feedstocks used to produce these fuels would likely require diverting volumes of advanced biodiesel and renewable diesel (or the feedstocks used to produce these fuels) from existing markets to be used to produce biofuels supplied to the U.S. Increasing the short-term supply of advanced biodiesel and renewable diesel to the U.S. in this manner (simply shifting the end use of advanced feedstocks to biodiesel and renewable diesel production and meeting non-biofuel demand for these feedstocks with conventional renewable and/or petroleum based feedstocks or diverting advanced biodiesel and renewable diesel from foreign markets to the U.S.) may not advance the full GHG or energy security goals of the RFS program. In a worst case scenario, higher standards could cause supply disruptions to a number of markets as biodiesel and renewable diesel producers seek additional supplies of advanced feedstocks and the parties that previously used these feedstocks, both within and outside of the fuels marketplace, seek out alternative feedstocks. Similarly, advanced biodiesel and renewable diesel could be diverted to the U.S. from foreign countries and displaced with petroleum fuels. These actions could result in significant cost increases, for both biodiesel and renewable diesel as well as other products produced from renewable oils, with reduced GHG benefits.

We believe the most reliable source for projecting the expected increase in vegetable oils in the U.S. is USDA's World Agricultural Supply and Demand Estimates (WASDE). According to the September 2017 WASDE report, domestic vegetable oil production is expected to increase

[97] For example, corn oil is a co-product of corn grown primarily for feed or ethanol production, while soy and canola oil are primarily grown as livestock feed.

[98] According to EIA data 6,096 million pounds of soy bean oil and 1,306 million pounds of corn oil were used to produce biodiesel in the U.S. in 2016. Other significant sources of feedstock were yellow grease (1,389 million pounds), canola oil (1,130 million pounds), white grease (578 million pounds), tallow (332 million pounds), and poultry fat (220 million pounds). Numbers from EIA's February 2017 Monthly Biodiesel Production Report. Available at https://www.eia.gov/biofuels/biodiesel/production/archive/2016/2016_12/biodiesel.pdf.

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by 0.33 million metric tons in 2018, from 11.42 million metric tons in the 2016/2017 agricultural marketing year to 11.75 million metric tons in the 2017/2018 agricultural marketing year.[99] This quantity of vegetable oils (0.33 million metric tons) could be used to produce approximately 94 million gallons of advanced biodiesel or renewable diesel.[100]

In addition to virgin vegetable oils, we also expect increasing volumes of distillers corn oil[101] to be available for use in 2018. The WASDE report does not project distillers corn oil production, so EPA must use an alternative source to project the growth in the production of this feedstock. EPA is using the results of the World Agricultural Economic and Environmental Services (WAEES) model to project the growth in the production of distillers corn oil.[102] In assessing the likely increase in the availability of distillers corn oil from 2017 to 2018, the authors of the WAEES model considered the impacts of an increasing adoption rate of distillers corn oil extraction technologies at domestic ethanol production facilities, as well as increased corn oil extraction rates enabled by advances in this technology. The WAEES model projects that production of distillers corn oil in 2018 will increase by 316 million pounds, from 2,299 million pounds in agricultural marketing year 2016/2017 to 2,615 million pounds in agricultural marketing year 2017/2018. According to the WAEES model, this projected increase in the production of distillers corn oil, if devoted entirely to biofuel production, could be used to produce approximately 39 million gallons of biodiesel or renewable diesel in 2018. We believe that this is a reasonable projection. While the vast majority of the increase in advanced biodiesel and renewable diesel feedstocks produced in the U.S. from 2016 to 2017 is expected to come from virgin vegetable oils and distillers corn oil, increases in the supply of other sources of advanced biodiesel and renewable diesel feedstocks, such as biogenic waste oils, fats, and greases, may also occur. These increases, however, are expected to be modest, as many of these feedstocks that can be recovered economically are already being used for the production of biodiesel or renewable diesel, or in other markets. In total, we expect that increases in feedstocks produced in the U.S. are sufficient to produce approximately 150 million more gallons of advanced biodiesel and renewable diesel in 2018 relative to 2017.[103]

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[99] For this assessment we have assumed the vegetable oils produced in the 2017/2018 agricultural marketing year are the feedstocks most likely to be used to produce biodiesel and renewable diesel in 2018.

[100] To calculate this volume we have used a conversion of 7.7 pounds of feedstock per gallon of biodiesel. This is based on the expected conversion of soy oil (http://extension.missouri.edu/p/G1990), which is the largest source of feedstock used to produce advanced biodiesel and renewable diesel. We believe that it is also a reasonable conversion factor to use for all virgin vegetable oils.

[101] Distillers corn oil is non-food grade corn oil produced by ethanol production facilities

[102] For the purposes of this final rule, EPA relied on WAEES modeling results submitted as comments by the National Biodiesel Board on the 2018 final rule (Kruse, J., "Implications of an Alternative Advanced and Biomass Based Diesel Volume Obligation for Global Agriculture and Biofuels", August 21, 2017, World Agricultural Economic and Environmental Services (WAEES), EPA–HQ–OAR–2017-0091-3880).

[103] This projection includes a projected increase in the availability fats and oils other than virgin vegetable oils and distillers corn oil sufficient to produce approximately 15 million gallons of biodiesel. The WAEES model projects an increase in the quantity of "other fats and oils" (including inedible tallow, lard & white grease, yellow grease, brown grease, poultry fat, and other) sufficient to produce 31 million gallons of biodiesel. It is not clear from the WAEES model, however, if the projected increased use of other fats and oils as feedstock for biodiesel production is the result of increased production/collection of these feedstocks or diverting them from other uses. We therefore think our slightly more conservative projected increase in these feedstocks sufficient to produce 15 million gallons of biodiesel (without diverting feedstocks from existing uses) is appropriate. We note, however, using the slightly higher projection from the WAEES model (feedstock increase sufficient to produce 31 million gallons of biodiesel)

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We have also considered the expected increase in the imports of advanced biodiesel and renewable diesel produced in other countries. In previous years, significant volumes of foreign produced advanced biodiesel and renewable diesel have been supplied to markets in the U.S. (see Table IV.B.2-1 above). These significant imports were likely the result of a strong U.S. demand for advanced biodiesel and renewable diesel, supported by the RFS standards, the LCFS in California, the biodiesel blenders tax credit, and the opportunity for imported biodiesel and renewable diesel to realize these incentives. At this time the impact of the expiration of the biodiesel blenders tax credit on the volumes of foreign-produced biodiesel and renewable diesel imported into the U.S., is highly uncertain. Additionally, in August 2017 the Department of Commerce announced a preliminary determination that it would be appropriate to place countervailing duties of 41 percent to 68 percent on biodiesel imported from Argentina and Indonesia. According to data from EIA, biodiesel imports from Argentina were 10,679 thousand barrels in 2016 (approximately 449 million gallons) and 5,601 billion barrels (approximately 235 million gallons) through July 2017 (the most recent month for which data were available at the time of this assessment). Biodiesel imports from Indonesia were 2,554 thousand barrels in 2016 (approximately 107 million gallons), with no biodiesel imported in 2017 through July 2017. At this time, it is uncertain whether or not the preliminary determination by the Department of Commerce will be finalized, and it is uncertain what impact the finalization of these duties would have on overall imports of advanced biodiesel and renewable diesel to the U.S. In recent years imports of advanced biodiesel and renewable diesel have increased year-over-year, and absent these actions it may be reasonable to anticipate continued increases in the imported volume of these fuels. In light of this uncertainty, however, we do not believe it would be reasonable at this point to either increase or decrease our projection of the reasonably attainable volume of biodiesel and renewable diesel for 2018 as compared to the levels we projected for 2017.[104]

After a careful consideration of the factors discussed above, EPA has determined, for the purposes of this final rule, that approximately 2.55 billion gallons of advanced biodiesel and renewable diesel is reasonably attainable for use in our determination of the appropriate applicable volume of advanced biofuel to require for 2018. This volume is 150 million gallons higher than the volume of advanced biodiesel and renewable diesel determined to be reasonably attainable and appropriate for the purposes of deriving the advanced biofuel standard in 2017.

The 150 million gallon increase in advanced biodiesel and renewable diesel that we project will be reasonably attainable for 2018 represents a smaller annual increase in advanced biodiesel and renewable diesel than we assumed in deriving the 2017 advanced biofuel standard (approximately 300 million gallons over 2016 levels). We believe that this reflects that the circumstances presented with respect to 2018 are different from those we anticipated for 2017. The primary differences are a smaller projected increase in advanced feedstock production in the

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has a very minimal impact on our assessment of the reasonably attainable volume of advanced biodiesel and renewable diesel in 2018, and would have no impact on the required volume of advanced biofuel for 2018.

[104] We further note that there have been recent efforts to reinstate the biodiesel tax credit as a producers' tax credit, rather than a blenders tax credit. If the biodiesel tax credit were reinstated as a producers' tax credit it would not apply to foreign biodiesel producers, further limiting the likely supply of imported advanced biodiesel and renewable diesel.

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U.S., the continued absence of the biodiesel tax credit, and the preliminary determination placing duties on biodiesel imported from Argentina and Indonesia.

3. Other Advanced Biofuel

In addition to cellulosic biofuel, imported sugarcane ethanol, and advanced biodiesel and renewable diesel, there are other advanced biofuels that can be counted in the determination of reasonably attainable volumes of advanced biofuel for 2018. These other advanced biofuels include biogas, naphtha, heating oil, butanol, jet fuel, and domestically-produced advanced ethanol.[105] However, the supply of these fuels has been relatively low in the last several years.

Table IV.B.3-1
Historical Supply of Other Advanced Biofuels
(million ethanol-equivalent gallons)

	CNG	Heating oil	Naphtha	Renewable diesel[a]	Domestic Ethanol	Total
2013	26	0	3	64	23	116
2014	20	0	18	15	26	79
2015	0	1	24	8	25	58
2016	0	2	26	8	27	63

[a] Some renewable diesel generates D5 rather than D4 RINs as a result of being produced through co-processing with petroleum or being produced from the non-cellulosic portions of separated food waste or annual cover crops.

The downward trend over time in biogas as advanced biofuel with a D code of 5 is due to the re-categorization in 2014 of landfill biogas from advanced (D code 5) to cellulosic (D code 3).[106] Apart from biogas, total supply of advanced biofuel other than imported sugarcane ethanol has been relatively constant during 2014 - 2016. Based on this historical record, we find that 60 million gallons would be reasonably attainable in 2018.[107] This represents the approximate average of the two most recent years (2015 and 2016) for which complete data are available.

We recognize that the potential exists for additional volumes of advanced biofuel from sources such as jet fuel, liquefied petroleum gas (LPG), and liquefied natural gas (as distinct from compressed natural gas), as well as non-cellulosic biogas such as from digesters. However, since they have been produced in only de minimis and sporadic amounts in the past, we do not have a basis for projecting substantial volumes from these sources in 2018.[108]

[105] Advanced biofuel with a D code of 5.
[106] 79 FR 42128, July 18, 2014.
[107] For the purposes of determining the availability of total renewable fuel, we are using a volume of 40 million gallons of non-ethanol other advanced biofuel and 20 million gallons of advanced domestic ethanol (see discussion in Section V.B.2).
[108] For instance, no RIN-generating volumes of these other advanced biofuels were produced in 2016, and less than 1 mill gal total in prior years.

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4. Total Advanced Biofuel

The total volume of advanced biofuel that we believe is reasonably attainable in 2018 is the combination of cellulosic biofuel and the sources described above: imported sugarcane ethanol, biodiesel and renewable diesel which qualifies as BBD, and other advanced biofuels such as advanced biogas that does not qualify as cellulosic biofuel, heating oil, naphtha, domestic advanced ethanol, and advanced renewable diesel that does not qualify as BBD. Our assessment of the reasonably attainable volumes of these sources, discussed in the preceding sections, is summarized below. We note that the reasonably attainable volumes of each of these advanced biofuels cannot themselves be viewed as volume requirements. The volumes for each advanced biofuel type represent one significant factor that is considered in the analysis used to determine the reasonably attainable volumes of advanced biofuel. As discussed in more detail in a memorandum to the docket, there are many ways that the market could respond to the percentage standards we establish, including use of higher or lower volumes of these fuel types than discussed in this section.[109] In addition, as discussed below, we do not believe it would be appropriate to require use of all volumes we have determined to be reasonably attainable.

Table IV.B.4-1
Reasonably Attainable Volumes of Advanced Biofuel in 2018
(million ethanol-equivalent gallons except as noted)

Cellulosic biofuel	288
Advanced biodiesel and renewable diesel (ethanol-equivalent volume / physical volume)	3,953 / 2,550
Imported sugarcane ethanol	100
Other advanced	60
Total advanced biofuel	4,401

C. Exercise of Cellulosic Waiver Authority for Advanced Biofuel

Based on the information presented above, we believe that 4.40 billion gallons of advanced biofuel would be reasonably attainable in 2018. This volume is 110 million gallons higher than the 4.29 billion gallons that would result from reducing the applicable volume of advanced biofuel by the same amount as the reduction to the statutory applicable volume of cellulosic biofuel (see Section III for a discussion of the cellulosic biofuel volume requirement for 2018). In exercising the cellulosic waiver authority in past years, we determined it was appropriate to require a partial backfilling of missing cellulosic volumes with volumes of non-cellulosic advanced biofuel we determined to be reasonably attainable and appropriate, notwithstanding the increase in costs associated with this decision.[110] However, this year we are

[109] "Market impacts of biofuels," memorandum from David Korotney to docket EPA-HQ-OAR-2017-0091.
[110] See, e.g., Response to Comments Document for the 2014-16 Rule, pages 628-631, available at https://www.epa.gov/sites/production/files/2015-12/documents/420r15024.pdf.

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balancing the various considerations in a different manner in setting the 2018 standards, placing a greater emphasis on cost considerations.[111]

In Section IV.E we present illustrative cost projections for sugarcane ethanol and soybean biodiesel in 2018, the two advanced biofuels that would be most likely to provide the marginal increase in volumes of advanced biofuel in 2018 in comparison to 2017. Sugarcane ethanol results in a cost increase compared to gasoline that ranges from $0.61 - $1.56 per ethanol-equivalent gallon.[112] Soybean biodiesel results in a cost increase compared to diesel fuel that ranges from $0.95 - $1.30 per ethanol-equivalent gallon.[113] The cost of these renewable fuels is high as compared to the petroleum fuels they displace. In light of these comparative costs, we believe it is reasonable to forgo the marginal benefit that might be achieved by establishing the advanced biofuel standard to require an additional 110 million gallons. See Section IV.E for a further discussion of the projected cost of this final rule.

Based on consideration of the volumes that may be reasonably attainable in 2018, along with a balancing of the costs and benefits associated with the option of setting the advanced biofuel standard at a level that would require use of all volumes that we have estimated could be reasonably attainable, we are exercising our cellulosic waiver authority to reduce advanced biofuel volumes to 4.29 billion gallons for 2018.[114] This advanced biofuel volume requirement for 2018 is similar to the requirement for 2017 when we allowed a portion of the shortfall in cellulosic biofuel to be backfilled with other advanced biofuel.

It should be noted that by exercising the full cellulosic waiver authority for advanced biofuel, the implied statutory volume target for non-cellulosic advanced biofuel of 4.0 billion gallons in 2018 is maintained. Although the implied volume for non-cellulosic advanced biofuel in the statute increases from 3.5 billion gallons in 2017 to 4.0 billion gallons in 2018, the applicable volume requirements for 2017 as finalized by EPA included an allowance for 4.0 billion gallons of non-cellulosic advanced biofuel, one year before envisioned by the statute. Through our 2017 action, we effectively required early use of the 0.5 billion gallon increment of non-cellulosic advanced volume that Congress envisioned would be first used in 2018. The net result of our action for 2018, after deciding that no further reductions beyond those obtained by exercise of the cellulosic waiver authority are appropriate (see Section V), is that the advanced

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[111] EPA notes that while the factors considered under the cellulosic waiver authority to reduce volumes could apply to volumes beyond the reduction in cellulosic biofuel, EPA is limited in the exercise of its cellulosic waiver authority to reductions up to the amount of the reduction in cellulosic biofuel. Any further reductions would require a determination under the general waiver authority that the volumes would result in severe economic or environmental harm, or that there is an inadequate domestic supply, as discussed in Section V below.

[112] Sugarcane ethanol results in a projected cost increase of $0.92 - $2.34 per gasoline-equivalent gallon. The projected cost of gasoline in 2018 is $1.64 per gallon based on EIA Short-Term Energy Outlook, October 2017, Custom Table Builder, "Refiner Wholesale Gasoline Price."

[113] Soybean biodiesel results in a projected cost increase of $1.62 - $2.22 per diesel-equivalent gallon. The projected cost of diesel in 2018 is $1.74 per gallon based on EIA Short-Term Energy Outlook, October 2017, Custom Table Builder, "Diesel Fuel Refiner Wholesale Price."

[114] EPA also considered the availability of advanced carryover RINs in determining whether reduced use of the cellulosic waiver authority would be warranted. For the reasons described in Section II.B, we do not believe this to be the case.

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biofuel volume requirement for 2018 is 10 million gallons higher than the advanced biofuel volume requirement for 2017, but the portion of this volume requirement that may be satisfied with non-cellulosic biofuels remains constant.

D. Exercise of Cellulosic Waiver Authority for Total Renewable Fuel

As discussed in Section II.A.1, we believe that the cellulosic waiver provision is best interpreted to provide equal reductions in advanced biofuel and total renewable fuel. We have consistently articulated this interpretation.[115] We believe this interpretation is consistent with the statutory language and best effectuates the objectives of the statute. If EPA were to reduce the total renewable fuel volume requirement by a lesser amount than the advanced biofuel volume requirement, we would effectively increase the opportunity for conventional biofuels to participate in the RFS program beyond the implied statutory cap of 15 billion gallons.[116]

Applying an equal reduction of 6.71 billion gallons to both the statutory target for advanced biofuel and the statutory target for total renewable fuel results in a total renewable fuel volume of 19.29 billion gallons as shown in Table IV.A-1.[117] If we were to determine that there is a basis to exercise the general waiver authority or the biomass-based diesel waiver authority, we could provide further reductions to the total renewable fuel volume. However, as described in more detail below in Section V, we believe that there is not sufficient justification for such further reductions in 2018.

E. Impacts of 2018 Standards on Costs

In this section, EPA presents its assessment of the illustrative costs of the final 2018 RFS rule. It is important to note that these illustrative costs do not attempt to capture the full impacts of this final rule. These estimates are provided solely for the purpose of showing how the cost to produce a gallon of a "representative" renewable fuel compares to the cost of petroleum fuel. There are a significant number of caveats that must be considered when interpreting these cost estimates. There are a number of different feedstocks that could be used to produce biofuels, and there is a significant amount of heterogeneity in the costs associated with these different feedstocks and fuels. Some renewable fuels may be cost competitive with the petroleum fuel they replace; however, we do not have cost data on every type of feedstock and every type of

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[115] For instance, see discussion in the final rules setting the 2013, 2014-2016, and 2017 standards: 78 FR 49809 – 49810, August 15, 2013; 80 FR 77434, December 14, 2015; 81 FR 89752 – 89753, December 12, 2016. We incorporate by reference the rationale for this interpretation that was articulated in these prior rules.

[116] Since the advanced biofuel volume requirement is nested within the total renewable fuel volume requirement, the statutory implied volume for conventional renewable fuel in the statutory tables can be discerned by subtracting the applicable volume of advanced biofuel from that of total renewable fuel. Performing this calculation with respect to the tables in CAA section 211(o)(2)(B) indicates a Congressional expectation that in the time period 2015–2022, advanced biofuel volumes would grow from 5.5 to 21 billion gallons, while the implied volume for conventional renewable fuel would remain constant at 15 billion gallons.

[117] EPA also considered the availability of carryover RINs in determining whether reduced use of the cellulosic waiver authority would be warranted. For the reasons described in Section II.B, we do not believe this to be the case.

fuel. Therefore, we do not attempt to capture this range of potential costs in our illustrative estimates.

The annual standard-setting process encourages consideration of the RFS program on a piecemeal (i.e., year-to-year) basis, which may not reflect the full, long-term costs and benefits of the program. For the purposes of this final rule, other than the estimates of costs of producing a "representative" renewable fuel compared to cost of petroleum fuel, EPA did not quantitatively assess other direct and indirect costs or benefits of changes in renewable fuel volumes. These direct and indirect costs and benefits include infrastructure costs, investment, GHG emissions and air quality impacts, or energy security benefits, which all are to some degree affected by the annual standards. While some of these impacts were analyzed in the 2010 final rulemaking that established the current RFS program,[118] we have not analyzed these impacts for the 2018 volume requirements. We framed the analyses we have performed for this final rule as "illustrative" so as not to give the impression of comprehensive estimates.

1. Illustrative Cost Savings Associated with Reducing Statutory Cellulosic Volumes

To provide an illustrative estimate of the cost of the 2018 cellulosic biofuel requirements, EPA has compared the 2018 cellulosic biofuel volume requirements to the statutory volume that would be required absent the exercise of our cellulosic waiver authority under CAA section 211(o)(7)(D)(i).[119] As described in other sections of this final rule, we believe that the additional 6.71 billion gallons of cellulosic biofuel envisioned by the statute will not be produced in 2018. Therefore, estimating costs of this volume reduction is inherently challenging. However, we have taken the relatively straightforward methodology of multiplying the per-gallon costs associated with the volumes that would be required under this final rule by the amount of cellulosic renewable fuel that is being waived. This comparison results in a cost savings estimated to be $5.3 – $15.9 billion.

To estimate the overall cost savings from waiving the cellulosic biofuel volumes, EPA has taken the following steps. First, EPA determined the magnitude of the volume reduction of cellulosic biofuel we are establishing in this rule, relative to the statutory volume. In this rule we are reducing the required volume of cellulosic biofuel by 6.71 billion gallons, with corresponding reductions in the advanced biofuel and total renewable fuel standards. Second, we estimated the per-gallon costs of producing cellulosic ethanol derived from corn kernel fiber that would be expected in complying with the standards. Third, the per-gallon costs of cellulosic biofuel from corn fiber were multiplied by 6.71 billion gallons.

While there may be growth in other cellulosic biofuel sources, for this exercise we believe it is appropriate to use corn kernel fiber as the representative cellulosic biofuel. The majority of liquid cellulosic biofuel in 2018 is expected to be produced using this technology, and application of this technology in the future could result in significant incremental volumes of

[118] RFS2 Regulatory Impact Analysis (RIA). U.S. EPA 2010, Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis. EPA-420-R-10-006. February 2010. Docket EPA-HQ-OAR-2009-0472-11332.
[119] EPA is also using its discretion to reduce the advanced biofuel and total renewable fuel requirements using the cellulosic waiver authority. This discretionary action is based partially on the costs of advanced biofuels and provides additional cost savings.

cellulosic biofuel. In addition, as explained in Section III.D.2, we believe that production of the major alternative cellulosic biofuel – CNG/LNG derived from biogas – is limited to approximately 580 million gallons due to a limitation in the number of vehicles capable of using this form of fuel.[120]

EPA uses a "bottom-up" engineering cost analysis to quantify the costs of producing a gallon of cellulosic ethanol derived from corn kernel fiber. There are multiple processes that could yield cellulosic ethanol from corn kernel fiber. EPA assumes a cellulosic ethanol production process that generates biofuel using distiller's grains, a co-product of generating corn starch ethanol that is commonly dried and sold into the feed market as distillers dried grains with solubles (DDGS), as the renewable biomass feedstock. We assume an enzymatic hydrolysis process with cellulosic enzymes to break down the cellulosic components of the distiller's grains. This process for generating cellulosic ethanol is similar to approaches currently used by industry to generate cellulosic ethanol at a commercial scale, and we believe these costs estimates are likely representative of the range of different technology options being developed to produce ethanol from corn kernel fiber. We then compare the per-gallon wholesale costs of the cellulosic ethanol to the petroleum fuels that would be replaced.

These cost estimates do not consider taxes, retail margins, or other costs or transfers that occur at or after the point of blending (transfers are payments within society and are not additional costs). We do not attempt to estimate potential cost savings related to avoided infrastructure costs (e.g., the cost savings of not having to provide pumps and storage tanks associated with higher-level ethanol blends). When estimating per-gallon costs, we consider the costs of gasoline on an energy equivalent basis as compared to ethanol, since more ethanol gallons must be consumed to go the same distance as gasoline due to the ethanol's lower energy content.

Table IV.E.1-1 below presents the cost savings associated with this final rule that are estimated using this approach.[121] The statutory cellulosic biofuel target in EISA for 2018 is seven billion gallons (ethanol equivalent). The cellulosic biofuel volume used in this rule to establish the 2018 cellulosic biofuel percentage standard is 288 million gallons. The amount of cellulosic biofuel being waived is 6.71 billion gallons. The per-gallon cost difference estimates for cellulosic ethanol ranges from $0.79 – $2.37 per ethanol equivalent gallon.[122] Given that cellulosic ethanol production is just starting to become commercially available, the cost estimates have a significant range. Multiplying those per-gallon cost differences by the amount

[120] To calculate this estimate, EPA used the Natural Gas Vehicle Use from the STEO Custom Table Builder (0.12 billion cubic feet/day in 2018). This projection includes all CNG/LNG used as transportation fuel from both renewable and non-renewable sources. EIA does not project the amount of CNG/LNG from biogas used as transportation fuel. To convert billion cubic feet/day to ethanol-equivalent gallons, EPA used conversion factors of 1020 BTU per cubic foot of natural gas and 77,000 BTU of natural gas per ethanol-equivalent gallon.

[121] Details of the data and assumptions used can be found in a Memorandum available in the docket entitled "Cost Impacts of the Final 2018 Annual Renewable Fuel Standards", Memorandum from Michael Shelby, Dallas Burkholder, and Aaron Sobel to EPA Docket EPA-HQ-OAR-2017-0091.

[122] For the purposes of the cost estimates in this section, EPA has not attempted to adjust the price of the petroleum fuels to account for the impact of the RFS program, since the changes in the renewable fuel volume are relatively modest. Rather, we have simply used the wholesale price projections for gasoline and diesel as reported in EIA's October 2017 STEO.

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of cellulosic biofuel waived in this final rule, 6.71 billion gallons, results in approximately $5.3 – $15.9 billion in cost savings.

Table IV.E-1
Impacts of the Difference between EISA Volumes for the Cellulosic Biofuel Standard and Final Cellulosic Volume in 2018

	2018 EISA Cellulosic Volume Standard	2018 Final Cellulosic Volume
Cellulosic Volume Required (Million Ethanol-Equivalent Gallons)[123]	7,000	288
Change in Required Cellulosic Biofuels (Million Gallons as Ethanol)	-	(6,712)
Cost Difference Between Cellulosic Corn Fiber-Derived Ethanol and Gasoline Per Gallon ($/EGE) [124]	-	$0.79 - $2.37
Estimated Cost Difference in Meeting Cellulosic Biofuel Volume (Billion $)[125]	-	$(5.3) - $(15.9)

2. Illustrative Cost Analysis of Advanced Biofuels Using 2017 as the Baseline

We recognize that for the purpose of estimating the cost of the 2018 RFS volume requirements that a number of different scenarios using different "baselines" would be of interest to stakeholders. Therefore, in this section, we are also providing an illustrative cost analysis that shows the costs of the advanced biofuel standard as compared to those associated with the preceding year's standard, which as discussed in section IV.C. will lead to an increase of 10 million gallons of advanced biofuel in 2018 in comparison to 2017.[126]

EPA is providing an illustrative cost analysis for the increase in the overall advanced biofuel volume of 10 million ethanol equivalent gallons (as compared to 2017 volumes) using four different scenarios, assuming this increase in advanced biofuel volumes is comprised of: (1) cellulosic biofuel from CNG/LNG, (2) cellulosic biofuel from corn kernel fiber, (3) soybean oil BBD, or (4) sugarcane ethanol from Brazil. Showing the illustrative costs of soybean oil BBD and sugarcane ethanol is consistent with the methodology EPA developed for previous rulemakings. However, this discussion should not be interpreted as suggesting that the various renewable fuel types discussed are necessarily available in the marketplace. The availability of different types of renewable fuel is discussed in other sections of this preamble; in this section

[123] Overall fuel volumes may not match due to rounding.
[124] Approximate costs are rounded to the cents place.
[125] Approximate costs are rounded to the first decimal place.
[126] There is also an increase of 10 million gallons in the 2018 applicable volume of total renewable fuel as compared to the 2017 volume. However, in light of the nested standards, that increase is entirely attributable to the increase in the advanced volume.

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we assess costs as if the different fuel types are available, without intending to suggest that they are.

In previous annual RFS rules, EPA provided an illustrative cost estimate for the entire change in the total renewable fuel volume standard assuming it was satisfied with conventional (i.e., non-advanced) corn ethanol. As there is no change in the 2018 implied conventional volume relative to the 2017 volume, all of the changes in both the advanced and total renewable fuel volumes are properly attributed to advanced biofuel.

As described earlier, we are focusing on the wholesale level in our cost scenarios, and do not consider taxes, retail margins, additional infrastructure, or other costs or transfers that occur at or after the point of blending. More background information on this section, including details of the data sources used and assumptions made for each of the scenarios, can be found in a memorandum available in the docket.[127]

Table IV.E.2-1 below presents estimates of per energy-equivalent gallon costs for producing soybean biodiesel, Brazilian sugarcane ethanol, CNG/LNG derived from landfill biogas, and cellulosic ethanol derived from corn fiber relative to the petroleum fuels they replace at the wholesale level. For each of the four scenarios, these per-gallon costs are then multiplied by the 10 million ethanol-equivalent gallon increase in the 2018 advanced standard relative to the previous 2017 standard to obtain an overall cost estimate.

[127] "Cost Impacts of the Final 2018 Annual Renewable Fuel Standards", Memorandum from Michael Shelby, Dallas Burkholder, and Aaron Sobel to EPA Docket EPA-HQ-OAR-2017-0091.

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Table IV.E.2-1
Illustrative Costs of the 10 Million Gallon Increase in the Advanced Biofuel Volume Requirement in 2018 Relative to the 2017 Volume Requirement

Soybean Biodiesel Scenario	
Cost Difference Between Soybean Biodiesel and Petroleum Diesel Per Gallon ($/EGE)[128]	$0.89 - $1.22
Annual Change in Overall Costs (Million $)[129]	$9 - $12
Brazilian Sugarcane Ethanol Scenario	
Cost Difference Between Sugarcane Ethanol and Gasoline Per Gallon ($/EGE)	$0.61 - $1.56
Annual Change in Overall Costs (Million $)	$6 - $16
CNG/LNG Derived from Landfill Biogas Scenario	
Cost Difference Between CNG/LNG Derived from Biogas and Natural Gas ($/EGE)[130]	$(0.04) - $0.07
Annual Change in Overall Costs (Million $)	$(0.4) - $0.7
Corn Fiber-Derived Ethanol Scenario	
Cost Difference Between Cellulosic Corn Fiber-Derived Ethanol and Gasoline Per Gallon ($/EGE)	$0.79 - $2.37
Annual Change in Overall Costs (Million $)	$8 - $24

Based on this illustrative analysis of four separate hypothetical scenarios, EPA estimates that the costs for changes in the advanced fuel volumes compared to 2017 could range from $(0.4) – $24 million in 2018. It is important to note that these illustrative costs do not take into consideration the benefits of the program.[131] For the purpose of this annual rulemaking, we have not quantified benefits for the 2018 standards. For example, we do not have a quantified estimate of the GHG or energy security benefits for a single year (e.g., 2018). Also, there are impacts that are difficult to quantify, such as rural economic development and employment changes from more diversified fuel sources, that are not quantified in this rulemaking.

[128] Per-gallon cost differences compare illustrative biofuels to their petroleum fuel counterparts on an ethanol gallon equivalent (EGE) basis, accounting for the differences in energy content between fuels, and then multiplied by the total RINs needed to meet the change in volume obligations.
[129] Overall costs may not match per-gallon costs times volumes due to rounding.
[130] CNG/LNG derived from biogas and natural gas costs are compared on an ethanol gallon equivalent (EGE) energy content basis.
[131] The small negative cost estimate is likely a result of the methodology undertaken for these illustrative costs.

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V. Consideration of Additional Reductions Using Other Waiver Authorities

As discussed in previous sections, we are reducing the statutory volume target for cellulosic biofuel to reflect the projected production volume of that fuel type in 2018, and we are reducing both advanced biofuel and total renewable fuel by the maximum permissible amount authorized under the cellulosic waiver authority in CAA section 211(o)(7)(D)(i).

We have also considered whether it would be appropriate to provide further reductions for these renewable fuel categories pursuant to the general waiver authority in CAA section 211(o)(7)(A), or for these renewable fuel categories and the 2018 BBD using the BBD waiver authority in CAA section 211(o)(7)(E). We have concluded that further reductions in volumes using any of these other waiver authorities are not warranted. We note that in the October 4 Federal Register notice we solicited comment on possible new interpretations of the general waiver authority for inadequate domestic supply and severe economic harm and of the biomass-based diesel waiver authority.[132] We find it unnecessary to resolve whether to adopt such interpretations at this point in time because under any approach we would find exercise of these waiver authorities not appropriate based on the record before us.

As a result, we are finalizing advanced biofuel and total renewable fuel volume requirements resulting from the exercise of the cellulosic biofuel waiver authority alone, and we are not modifying the 2018 BBD applicable volume of 2.1 billion gallons established through a prior rulemaking. The implied volume for conventional renewable fuel (calculated by subtracting the advanced volume from the total volume) will be 15.0 billion gallons, consistent with the statutory target provided in the statute for 2018.

A. Inadequate Domestic Supply

On July 21, 2017, we proposed to reduce the 2018 statutory volume targets for advanced biofuel and total renewable fuel by the maximum permissible amount using the cellulosic waiver authority, and not to reduce these volumes further using other authorities. However, we requested comment on the possible additional use of the general waiver authority or other authorities to provide further reductions in the proposed volume requirements.[133] To evaluate the possibility for using the general waiver authority on the basis of a finding of inadequate domestic supply, we considered the projected volumes of renewable fuel that can be supplied to refiners, importers, and blenders in 2018 from both domestic production and imports. In addition, consistent with the approach identified for consideration in the October 4 notice, we considered the projected volumes of renewable fuel that can be supplied to refiners and blenders solely from domestic production. Under either approach we conclude a waiver is not warranted.

In Section III we discussed our projection that 288 million gallons of cellulosic biofuel will be made available in 2018. In Section IV we described our assessment that about 4.40 billion gallons of advanced biofuel would be reasonably attainable in 2018 from both domestic

[132] 82 FR 46174, October 4, 2017.
[133] 82 FR 34206 at 34213, October 4, 2017.

production and imports but that, after considering a number of factors, such as the potential for feedstock/fuel diversions and cost of advanced biofuel, we would exercise our discretion to use the full cellulosic waiver authority to reduce the applicable volume to 4.29 billion gallons.[134] As a result, we do not anticipate an inadequate domestic supply of advanced biofuels to meet a volume requirement of 4.29 billion gallons for advanced biofuel, when both domestic production and imports are considered.

Having determined that there will not be an inadequate domestic supply of advanced biofuel, we further considered whether there may be an inadequate domestic supply to satisfy the portion of the total renewable fuel volume requirement that can be satisfied with non-advanced (conventional) renewable fuel. After application of the full cellulosic waiver authority to the advanced biofuel and total renewable fuel statutory volume targets, the implied statutory volume for conventional renewable fuel is 15.0 billion gallons. The total domestic production capacity of corn ethanol in the U.S. is about 16 billion gallons, and total production of denatured and undenatured ethanol from these facilities in 2016 exceeded 15 billion gallons.[135] As a result, there does not appear to be an inadequate domestic supply of renewable fuel to satisfy the implied 15 billion gallon conventional renewable fuel volume that results from full application of the cellulosic waiver authority to reduce statutory volume targets for advanced biofuel and total renewable fuel. We note that this assessment does not include imported volumes of fuel, such as conventional biodiesel, which could also be used to satisfy the volume requirements. In light of this finding, we conclude that there is not an inadequate domestic supply of volumes than can be used to meet the 15 billion gallon implied volume for conventional renewable fuel, and thus that further reductions of the 19.29 billion gallon total renewable fuel volume requirement derived through use of the cellulosic waiver authority would not appropriate when taking into account both domestic production and imports.

In the October 4 notice, we discussed comments on the proposal suggesting that EPA should interpret the undefined term ''domestic'' in the phrase ''inadequate domestic supply'' to account for only volumes of renewable fuel that are produced domestically. If EPA were to adopt this interpretation, we could exclude potential imports of renewable fuel in our assessment of domestic supply but, even if we found domestic supply to be inadequate, could take factors such as potential imports and the availability of carryover RINs into account in determining the extent to which we should exercise our discretion to grant a waiver on the basis of inadequate domestic supply.[136] As described in more detail in the RTC document, stakeholders who

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[134] Because EPA's authority under the cellulosic waiver authority affords EPA more discretion to reduce volumes of advanced and total renewable fuel than the general waiver authority under an evaluation of inadequate domestic supply, EPA has evaluated the supply of advanced biofuel for purposes of a determination on the adequacy of supply without consideration of these factors.

[135] "2017 Ethanol Industry Outlook" by the Renewable Fuels Association indicates that 2017 nationwide production capacity is 16.0 bill gal and actual production in 2016 was 15.25 bill gal. "US Fuel Ethanol Plant Production Capacity from EIA," estimates 2017 nameplate production capacity at 15.51 bill gal. In "Ethanol Production in 2016 from EIA," EIA indicates that 2016 actual production was 15.45 bill gal. All documents are available in docket EPA-HQ-OAR-2017-0091.

[136] EPA's current regulations provide that qualifying imported biofuel may be used for compliance with the RFS standards; EPA's response to comments on this approach to imported biofuels is provided in the RTC document.

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addressed this issue provided varying perspectives on the extent to which such an interpretation would have a relevant impact on renewable fuel supply.

In light of the fact that the domestic production capacity of conventional biofuel volumes is in excess of 15 billion gallons, whether we were to exclude imported biofuels from our consideration of domestic supply would primarily impact our assessment of the supply of cellulosic biofuel and advanced biofuel volumes, not conventional renewable fuel. With respect to cellulosic biofuel, we note that the vast majority of the supply in 2018 is expected to come from domestic sources. In fact, if EPA excluded consideration of projected cellulosic biofuel imports, our projection of the available volume of cellulosic biofuel in 2018 would be reduced by only 2 million gallons or less than 1 percent of our projection that 288 million cellulosic biofuel gallons will be made available in 2018. Given the importance that Congress placed on the growth of cellulosic biofuel volumes, our projection that compliance with a 288 million gallon requirement is feasible using RINs generated in 2018, and the availability of carryover cellulosic biofuel RINs and cellulosic waiver credits for additional compliance flexibility, EPA would not exercise its discretion to lower the 288 million gallon projected cellulosic biofuel volume by 2 million gallons even if EPA were to interpret the term "domestic supply" to exclude imported volumes.

With respect to the available supply of advanced biofuel in 2018 in the context of an interpretation of inadequate domestic supply that excludes imports, several commenters noted the data provided by EPA in the October 4 notice indicating that a significant portion of the advanced biofuel available in previous years has been from imported biofuels, particularly imported biodiesel and renewable diesel. Some commenters pointed to total domestic production capacity and feedstock availability to argue that domestic producers are capable of compensating for volumes that would not be provided through imports, so that even under an interpretation of "domestic supply" that excluded imports, EPA would not be justified in reducing volumes on the basis of inadequate domestic supply to a level below what was proposed. Others suggested that, without imported volumes, the domestic industry could not ramp up production quickly enough to compensate for the exclusion of imports from our analysis and provide a "domestic supply" equal to the proposed 2018 volume requirements.[137] We believe, based on the record before us, that there is uncertainty regarding the capability of the domestic advanced biofuel industry to compensate in 2018 for volumes that would not be provided through imports. Taking this uncertainty into account (including the distinct possibility that the domestic industry could compensate for exclusion of imports), as well as the availability of imported volumes and carryover RINs, EPA would not choose to exercise its authority to grant a waiver on the basis of inadequate domestic supply for 2018 even if it interpreted the term "domestic supply" to exclude imports. In light of this determination, we need not resolve at this

[137] The "domestic supply" of BBD for 2018 would likely be adequate to meet the 2018 standard of 2.1 billion gallons. Domestic production of BBD would need to increase by approximately 300 million gallons as compared to the 2016 production. As discussed above, EPA believes this increase is possible and received comments suggesting this volume increase could be met by domestic production. Additionally, carryover RINs and imported volumes could still be used to meet the standard. Therefore, EPA would not chose to exercise its authority to grant a waiver on the basis of inadequate domestic supply for BBD for 2018 even if it interpreted the term "domestic supply" to exclude imports.

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time the interpretive issue regarding whether the term "domestic supply" should include consideration of imports.

B. Severe Economic Harm

The proposal and October 4 notice requested comment on the possibility of further reductions in the proposed volume requirements, including on the basis of a severe economic harm. We received comments from stakeholders both in support of, and opposed to, further reductions in the advanced biofuel and/or total renewable fuel volume requirements based on a finding of severe economic harm. For instance, several obligated parties stated that the purchase of RINs to comply with the applicable standards represents a significant economic burden to their companies. Some also indicated that they are considering filing for bankruptcy. However, these commenters did not provide sufficient evidence that the purchase of RINs, as opposed to other market factors, is responsible for the company's difficult economic circumstances, or why they cannot recoup the cost of RINs through higher prices of their products, or the arguments presented were unconvincing.[138] None of the commenters provided compelling evidence that the proposed RFS volume requirements for 2018 would be likely to cause severe economic harm to a region, State, or the U.S.[139] Further discussion of these comments can be found in the RTC document.

In addition to reviewing comments on the proposed rule and the October 4 notice, EPA also reviewed market data from 2017 and previous years to see if there was evidence that the RFS standards are currently causing severe economic harm, or would be likely to cause severe economic harm in 2018. Given that the 2018 volumes generated through the maximum reduction permitted under the cellulosic waiver authority are nearly the same as the volume requirements for 2017, we considered:

1. whether severe economic harm has occurred to date or is likely to occur in 2017, and

2. whether the economic conditions in 2018 might be expected to be substantially different than those in 2017.

To determine whether severe economic harm has occurred to date or is likely to occur in in 2017, we investigated several possible indicators. These included RIN generation for 2017 relative to 2016, refinery closures, retail fuel prices, and corn and soybean prices. Based on our investigation, we do not believe that severe economic harm has occurred thus far in 2017 to any

[138] We further note that before exercising the general waiver authority on the basis of severe economic harm to a State, a Region or the U.S., EPA would need to consider whether a waiver that would affect the standards applicable to all obligated parties, and would take into account any negative economic impacts to farmers and biofuel producers from a waiver, would be of significant benefit to individual obligated parties facing financial difficulties.
[139] In the October 4 notice, we solicited comment on EPA's prior interpretation of the term "severe economic harm." As discussed in the RTC document accompanying this action, we believe that the evidence in the record would be insufficient to support a finding of severe economic harm under any reasonable interpretation of the phrase advanced by commenters, so do not find it necessary to assess changes to our interpretation of the phrase at this time.

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State, region, or the U.S. as a result of the 2017 standards, or is likely occur by the end of 2017. Details of this investigation can be found in a memorandum to the docket.[140]

To determine whether the economic conditions in 2018 might be expected to be substantially different than those in 2017 in ways that could affect the economic impact of compliance with the RFS program, we investigated projections of two primary drivers of the cost of compliance: crop-based feedstock futures prices, and projected gasoline demand. We also investigated the potential market impacts of the final 2018 standards, most specifically in terms of ethanol and biodiesel consumption.[141]

Based on the record before us, we do not believe that there is sufficient evidence to conclude that severe economic harm is occurring currently in 2017 in any State, region, or the United States, and we do not believe that market conditions in 2018 are likely to cause compliance with the applicable standards to be more economically challenging than it is in 2017. Given that the 2018 standards are very similar to the 2017 standards, then, we do not believe that further reductions in the 2018 volume requirements on the basis of severe economic harm are warranted.

C. Severe Environmental Harm

EPA received comments in response to the proposal asserting that there are negative environmental impacts that may be associated with the RFS program. A significant portion of these concerns center on feedstock production. Although we are authorized to reduce the statutory volume targets on the basis of a finding that the requirements would "severely harm the … environment of a State, region, or the United States," commenters have not presented evidence sufficient to support a determination to make a reduction on this basis for 2018. EPA is not making reductions on this basis for 2018. EPA's response to comments related to perceived environmental harms of the RFS program is set forth in the RTC document accompanying this rule.

D. Biomass-Based Diesel Waiver Authority

The BBD waiver authority in CAA section 211(o)(7)(E)(ii) provides that if EPA determines that there is a significant renewable feedstock disruption or other market circumstance that would make the price of BBD increase significantly, then EPA shall, in consultation with the Secretary of Energy and the Secretary of Agriculture, issue an order to reduce, for up to a 60-day period, the annual volume requirement for BBD by an appropriate quantity that does not exceed 15 percent. If EPA reduces the annual volume requirement for BBD using this waiver authority, we may also reduce the applicable volume of advanced biofuel and total renewable fuel by an equal or lesser volume than the reduction in BBD. In the October

[140] "Assessment of waivers for severe economic harm or BBD prices for 2018," memorandum from David Korotney to docket EPA-HQ-OAR-2017-0091.
[141] "Market impacts of biofuels," memorandum from David Korotney to docket EPA-HQ-OAR-2017-0091.

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4 notice we requested comment on the expected impact on the price of BBD of the expiration of the biodiesel blenders tax credit, proposed import duties on biodiesel from Argentina and Indonesia, or any other factors. We further requested comment on whether any expected impacts should be considered significant for the purposes of the BBD waiver authority.

To investigate whether a reduction in the 2018 BBD volume requirement would be warranted under CAA section 211(o)(7)(E)(ii), we considered current and historical prices of unblended biodiesel (B100), the price of blended biodiesel (in particular, B20), and BBD (D4) RIN prices. The results of this investigation are described in a memorandum to the docket.[142] EPA discussed in the October 4 notice the fact that the Department of Commerce had imposed preliminary tariffs on biodiesel imported from Argentina and Indonesia, and that such tariffs could impact the price of BBD. However, these tariffs have not yet been finalized, nor has EPA observed any significant impact of the announcement of the preliminary tariffs on the price of biomass-based diesel.[143]

Based on the information before us, including the results of our investigation and information and comments submitted in response to the October 4 notice, we have concluded that there is not sufficient evidence of a significant increase to the price of BBD due to feedstock disruption or other relevant market circumstances to justify reductions to the 2018 BBD volume requirement using the biomass-based diesel waiver authority.

[142] "Assessment of waivers for severe economic harm or BBD prices for 2018," memorandum from David Korotney to docket EPA-HQ-OAR-2017-0091.
[143] "Assessment of waivers for severe economic harm or BBD prices for 2018," memorandum from David Korotney to docket EPA-HQ-OAR-2017-0091.

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VI. Final Biomass-Based Diesel Volume for 2019

In this section we discuss the BBD applicable volume for 2019. We are establishing this volume in advance of those for other renewable fuel categories in light of the statutory requirement in CAA section 211(o)(2)(B)(ii) to establish the applicable volume of BBD for years after 2012 no later than 14 months before the applicable volume will apply. We are not at this time establishing the BBD percentage standards that would apply to obligated parties in 2019 but intend to do so in late 2018, after receiving EIA's estimate of gasoline and diesel consumption for 2019. Although the BBD applicable volume sets a floor for required BBD use, because the BBD volume requirement is nested within both the advanced biofuel and the total renewable fuel volume requirements, any BBD produced beyond the mandated 2019 BBD volume can be used to satisfy both of these other applicable volume requirements.

A. Statutory Requirements

The statute establishes applicable volume targets for years through 2022 for cellulosic biofuel, advanced biofuel, and total renewable fuel. For BBD, applicable volume targets are specified in the statute only through 2012. For years after those for which volumes are specified in the statute, EPA is required under CAA section 211(o)(2)(B)(ii) to determine the applicable volume of BBD, in coordination with the Secretary of Energy and the Secretary of Agriculture, based on a review of the implementation of the program during calendar years for which the statute specifies the volumes and an analysis of the following factors:

1. 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;
2. The impact of renewable fuels on the energy security of the United States;
3. The expected annual rate of future commercial production of renewable fuels, including advanced biofuels in each category (cellulosic biofuel and BBD);
4. 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;
5. The impact of the use of renewable fuels on the cost to consumers of transportation fuel and on the cost to transport goods; and
6. 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.

The statute also specifies that the volume requirement for BBD cannot be less than the applicable volume specified in the statute for calendar year 2012, which is 1.0 billion gallons. The statute does not, however, establish any other numeric criteria, or provide any guidance on how the EPA should weigh the importance of the often competing factors, and the overarching goals of the statute when the EPA sets the applicable volumes of BBD in years after those for which the statute specifies such volumes. In the period 2013-2022, the statute specifies increasing applicable volumes of cellulosic biofuel, advanced biofuel, and total renewable fuel,

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but provides no guidance, beyond the 1.0 billion gallon minimum, on the level at which BBD volumes should be set.

In establishing the BBD and cellulosic standards as nested within the advanced biofuel standard, Congress clearly intended to support development of BBD and especially cellulosic biofuels, while also providing an incentive for the growth of other non-specified types of advanced biofuels. That is, the advanced biofuel standard provides an opportunity for other advanced biofuels (advanced biofuels that do not qualify as cellulosic biofuel or BBD) to compete with cellulosic biofuel and BBD to satisfy the advanced biofuel standard after the cellulosic biofuel and BBD standards have been met.

B. Determination of the 2019 Applicable Volume of Biomass-Based Diesel

One of the primary considerations in determining the BBD volume for 2019 is a review of the implementation of the program to date, as it affects BBD. This review is required by the CAA, and also provides insight into the capabilities of the industry to produce, import, export, and distribute BBD. It also helps us to understand what factors, beyond the BBD standard, may incentivize the production and import of BBD. The number of BBD RINs generated, along with the number of RINs retired due to export or for reasons other than compliance with the annual BBD standards from 2011-2018 are shown in Table VI.B.1-1 below.

Table VI.B.1-1
Biomass-Based (D4) RIN Generation and Standards in 2011-2018 (million RINs or gallons)[144]

	BBD RINs Generated	Exported BBD (RINs)	BBD RINs Retired, Non-Compliance Reasons	Available BBD RINs[a]	BBD Standard (Gallons)	BBD Standard (RINs)
2011	1,692	72	98	1,522	800	1,200
2012	1,737	102	90	1,545	1,000	1,500
2013	2,739	124	101	2,514	1,280	1,920
2014	2,710	134	92	2,484	1,630	2,490[b]
2015	2,796	145	32	2,619	1,730	2,655[b]
2016	4,008	203	96	3,709	1,900	2,850
2017	N/A	N/A	N/A	N/A	2,000	3,000
2018	N/A	N/A	N/A	N/A	2,100	3,150

[a] Available BBD RINs may not be exactly equal to BBD RINs Generated minus Exported RINs and BBD RINs Retired, Non-Compliance Reasons, due to rounding.
[b] Each gallon of biodiesel qualifies for 1.5 RINs due to its higher energy content per gallon than ethanol. Renewable diesel qualifies for between 1.5 and 1.7 RINs per gallon, but generally has an equivalence value of 1.7. In 2014 and 2015 the number of RINs in the BBD Standard column is not exactly equal to 1.5 times the BBD volume standard as these standards were established based on actual RIN generation data for 2014 and a combination of actual data and a projection of RIN generation for the last three months of the year for 2015. Some of the volume used to meet the BBD standard was renewable diesel.

[144] Available BBD RINs Generated, Exported BBD RINs, and BBD RINs Retired for Non-Compliance Reasons information from EMTS.

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In reviewing historical BBD RIN generation and use, we see that the number of RINs available for compliance purposes exceeded the volume required to meet the BBD standard in 2011, 2012, 2013, and 2016. Additional production and use of biodiesel was likely driven by a number of factors, including demand to satisfy the advanced biofuel and total renewable fuels standards, the biodiesel tax credit,[145] and favorable blending economics. The number of RINs available in 2014 and 2015 was approximately equal to the number required for compliance in those years, as the standards for these years were finalized at the end of November 2015 and EPA's intent at that time was to set the standards for 2014 and 2015 to reflect actual BBD use. In 2016, with RFS standards established prior to the beginning of the year and the blenders tax credit in place, available BBD RINs exceeded the volume required by the BBD standard by 859 million RINs (30 percent). This indicates that in appropriate circumstances there is demand for BBD beyond the required volume of BBD.

The prices paid for advanced biofuel and BBD RINs beginning in early 2013 through the end of 2016 also support the conclusion that advanced biofuel and/or total renewable fuel standards provide a sufficient incentive for additional biodiesel volume beyond what is required by the BBD standard. Because the BBD standard is nested within the advanced biofuel and total renewable fuel standards, and therefore can help to satisfy three RVOs, we would expect the price of BBD RINs to exceed that of advanced and conventional renewable RINs.[146] If, however, BBD RINs are being used by obligated parties to satisfy their advanced biofuel obligations, above and beyond the BBD standard, we would expect the prices of advanced biofuel and BBD RINs to converge.[147] Further, if BBD RINs are being used (or are expected to be used) to satisfy obligated parties' total renewable fuel obligation, above and beyond their BBD and advanced biofuel requirements we would expect the price for all three RIN types to converge.

When examining RIN price data from 2012 through September 2017, shown in Figure VI.B.2-1 below, we see that beginning in early 2013 and through September 2017 the advanced RIN price and BBD RIN prices were approximately equal. Similarly, from early 2013 through late 2016 the conventional renewable fuel and BBD RIN prices were approximately equal. This suggests that the advanced biofuel standard and/or total renewable fuel standard are capable of incentivizing increased BBD volumes beyond the BBD standard, and operated in this manner

[145] The biodiesel tax credit was reauthorized in January 2013. It applied retroactively for 2012 and for the remainder of 2013. It was once again extended in December 2014 and applied retroactively to all of 2014 as well as to the remaining weeks of 2014. In December 2015 the biodiesel tax credit was authorized and applied retroactively for all of 2015 as well as through the end of 2016.

[146] This is because when an obligated party retires a BBD RIN to help satisfy their BBD obligation, the nested nature of the BBD standard means that this RIN also counts towards satisfying their advanced and total renewable fuel obligations. Advanced RINs count towards both the advanced and total renewable fuel obligations, while conventional RINs (D6) count towards only the total renewable fuel obligation.

[147] We would still expect D4 RINs to be valued at a slight premium to D5 and D6 RINs in this case (and D5 RINs at a slight premium to D6 RINs) to reflect the greater flexibility of the D4 RINs to be used towards the BBD, advanced biofuel, and total renewable fuel standard. This pricing has been observed over the past several years.

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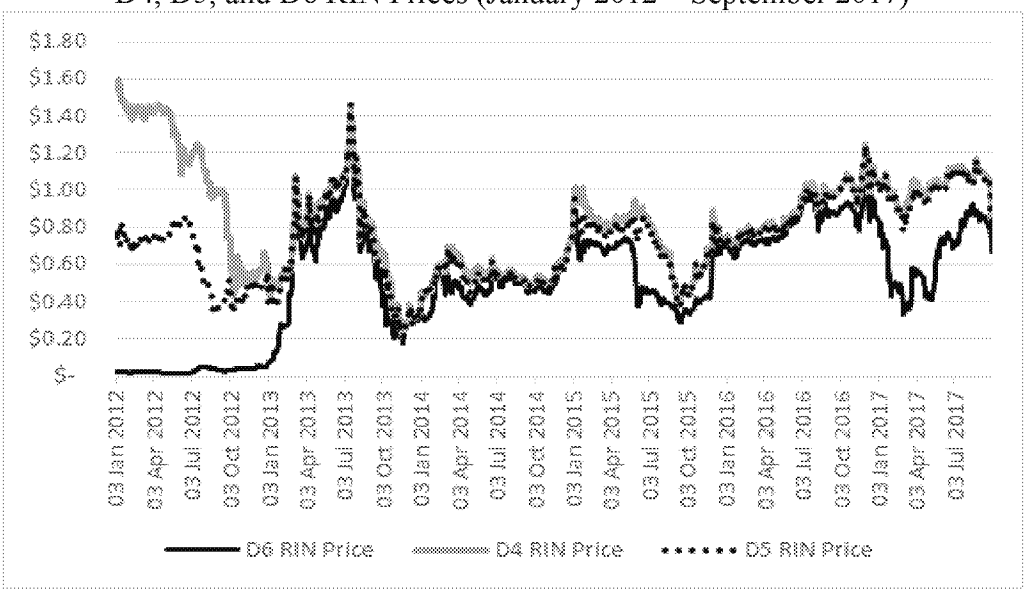
starting in 2013.[148] While final standards were not in place throughout 2014 and most of 2015, EPA had issued proposed rules for both of these years. In each year, the market response was to supply volumes of BBD that exceeded the proposed BBD standard in order to help satisfy the proposed advanced and total biofuel standards.[149] Additionally, the RIN prices in these years strongly suggests that obligated parties and other market participants anticipated the need for BBD RINs to meet their advanced and total biofuel obligations, and responded by purchasing advanced biofuel and BBD RINs at approximately equal prices. We do note, however, that in 2012 the BBD RIN price was significantly higher than both the advanced biofuel and conventional renewable fuel RIN prices. In 2012 the E10 blendwall had not yet been reached, and it was likely more cost effective for most obligated parties to satisfy the portion of the advanced biofuel requirement that exceeded the BBD and cellulosic biofuel requirements with advanced ethanol.

Figure VI.B.2-1
D4, D5, and D6 RIN Prices (January 2012 – September 2017)



RIN Price Source: Argus Media Group

In raising the 2013 BBD volume above the 1 billion gallon minimum mandated by Congress, the EPA sought to "create greater certainty for both producers of BBD and obligated parties" while also acknowledging that, "the potential for somewhat increased costs is appropriate in light of the additional certainty of GHG reductions and enhanced energy security provided by the advanced biofuel volume requirement of 2.75 billion gallons." [150] Unknown at

[148] Although we did not issue a rule establishing the final 2013 standards until August of 2013, we believe that the market anticipated the final standards, based on EPA's July 2011 proposal and the volume targets for advanced and total renewable fuel established in the statute. (76 FR 38844, 38843, July 1, 2011).
[149] EPA proposed a BBD standard of 1.28 billion gallons (1.92 billion RINs) for 2014 in our November 2013 proposed rule. The number of BBD RINs available in 2014 was 2.67 billion. EPA proposed a BBD standard of 1.70 billion gallons (2.55 billion RINs) for 2015 in our June 2015 proposed rule. The number of BBD RINs available in 2015 was 2.92 billion.
[150] 77 FR 59458, 59462 (September 27, 2012).

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that time was the degree to which the required volumes of advanced biofuel and total renewable fuel could incentivize volumes of BBD that exceeded the BBD standard. In 2012 the available supply of BBD RINs exceeded the required volume of BBD by a very small margin (1,545 million BBD RINs were made available for compliance towards meeting the BBD requirement of 1,500 million BBD RINs). The remainder of the 2.0 billion-gallon advanced biofuel requirement was satisfied with advanced ethanol, which was largely imported from Brazil.[151] From 2012 to 2013 the statutory advanced biofuel requirement increased by 750 million gallons. If EPA had not increased the required volume of BBD for 2013, and the advanced biofuel standard had proved insufficient to increase the supply of BBD beyond the statutory minimum of 1.0 billion gallons, an additional 750 million gallons of non-BBD advanced biofuels beyond the BBD standard would have been needed to meet the advanced biofuel volume requirement.

The only advanced biofuel other than BBD available in appreciable quantities in 2012 and 2013 was advanced ethanol, the vast majority of which was imported sugarcane ethanol. EPA had significant concerns as to whether or not the supply of advanced ethanol could increase this significantly (750 million gallons) in a single year. These concerns were heightened by the approaching E10 blendwall, which increased the challenges associated with supplying increasing volumes of ethanol to the U.S. If neither BBD volumes nor advanced ethanol volumes increased sufficiently, EPA was concerned that some obligated parties might be unable to acquire the advanced biofuel RINs necessary to demonstrate compliance with their RVOs in 2013. Therefore, as discussed above, EPA increased the volume requirement for BBD in 2013 to help create greater certainty for BBD producers (by ensuring demand for their product above the 1.0 billion gallon statutory minimum) and obligated parties (by ensuring that sufficient RINs would be available to satisfy their advanced biofuel RVOs). Since 2013, however, EPA has gained significant experience implementing the RFS program. As discussed above, RIN generation data has consistently demonstrated that the advanced biofuel volume requirement, and to a lesser degree the total renewable fuel volume requirement, are capable of incentivizing the supply of BBD above and beyond the BBD volume requirement.

Finally, we note that the BBD industry in the U.S and abroad has matured since EPA first increased the required volume of BBD beyond the statutory minimum in 2013. To assess the maturity of the biodiesel industry, EPA compared information on BBD RIN generation by company from 2012 and 2016 (the most recent year for which complete RIN generation is available). In 2012, the annual average RIN generation per company producing BBD was about 11 million RINs (about 7.3 million gallons) with approximately 50 percent of companies producing less the 1 million gallons of BBD a year. The agency heard from multiple commenters during the 2012 and 2013 rulemakings that higher volume requirements for BBD would provide greater certainty for the emerging BBD industry and encourage further investment. Since that time, the BBD industry has matured in a number of critical areas, including growth in the size of companies, the consolidation of the industry, and more stable funding and access to capital. In 2012, the BBD industry was characterized by smaller companies with dispersed market share. By 2016, the average BBD RIN generation per company had climbed to almost 33 million RINs (22 million gallons) annually, a 3-fold increase. Only 27 percent of the companies produced less than 1 million gallons of BBD.

[151] 594 million advanced ethanol RINs were generated in in 2012.

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We are conscious of public comments claiming that BBD volume requirements that are a significant portion of the advanced volume requirements effectively dis-incentivize the future development of other promising advanced biofuel pathways. A variety of different types of advanced biofuels, rather than a single type such as BBD, would positively impact energy security (e.g., by increasing the diversity of feedstock sources used to make biofuels, thereby reducing the impacts associated with a shortfall in a particular type of feedstock) and increase the likelihood of the development of lower cost advanced biofuels that meet the same GHG reduction threshold as BBD.[152]

With the considerations discussed above and in Section IV.B.2 in mind, as well as our analysis of the factors specified in the statute, we are setting the applicable volume of BBD at 2.1 billion gallons for 2019. We believe this volume sets the appropriate floor for BBD, and that the volume of advanced biodiesel and renewable diesel actually used in 2019 will be driven by the level of the advanced biofuel and total renewable fuel standards that the Agency will establish for 2019. We have considered the required statutory factors in reaching our decision, as summarized in Section C, below, and in a memorandum to the docket (the "2019 BBD docket memorandum").[153]

We believe our final 2019 BBD volume requirement strikes the appropriate balance between providing a market environment where the development of other advanced biofuels is incentivized, while also maintaining support for the BBD industry. Based on our review of the data, and the nested nature of the BBD standard within the advanced standard, we conclude that the advance standard continues to drive the ultimate volume of BBD supplied. Given the success of the industry in the past few years, as well as the substantial increases in the BBD volume being driven by the advanced standard, we have determined that a volume requirement greater than 2.1 billion gallons for BBD in 2019 is not necessary to provide support for the BBD industry. Setting the BBD standard in this manner continues to allow a considerable portion of the advanced biofuel volume to be satisfied by either additional gallons of BBD or by other unspecified and potentially less costly types of qualifying advanced biofuels.

C. Consideration of Statutory Factors *set forth in CAA Section 211(o)(2)(B)(ii)(I)-(VI) for 2019*

As noted earlier in Section IV.B., the BBD volume requirement is nested within the advanced biofuel requirement and the advanced biofuel requirement is, in turn, nested within the total renewable fuel volume requirement. This means that any BBD produced beyond the mandated BBD volume can be used to satisfy both these other applicable volume requirements. The result is that in considering the statutory factors we must consider the potential impacts of

[152] All types of advanced biofuel, including BBD, must achieve lifecycle GHG reductions of at least 50 percent.
[153] "Memorandum to docket: Draft Statutory Factors Assessment for the 2019 Biomass-Based Diesel (BBD) Applicable Volumes." See Docket EPA-HQ-OAR-2017-0091.

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increasing or decreasing BBD in comparison to other advanced biofuels.[154] For a given advanced biofuel standard, greater or lesser BBD volume requirements do not change the amount of advanced biofuel used to displace petroleum fuels; rather, increasing the BBD requirement may result in the displacement of other types of advanced biofuels that could have been used to meet the advanced biofuels volume requirement. While in recent years EPA has annually increased the BBD volume requirement, EPA is, as we proposed, maintaining the 2.1 billion gallon standard for 2019 based on our review of the statutory factors and the considerations noted above and in the 2018 BBD Docket Memorandum. In particular, as EPA noted above in section VI.B., the BBD industry is more mature, and we have increased BBD volumes significantly in recent years so that the BBD standard is now over twice the minimum statutory volume required in CAA section 211(o)(2)(B)(i). In these circumstances we do not believe that an additional increase in the required BBD required volume is necessary to support the industry in 2019.

Consistent with our approach in setting the final BBD volume requirement for 2018, EPA's primary assessment of the statutory factors for the 2019 BBD applicable volume is that because the BBD requirement is nested within the advanced biofuel volume requirement, we expect that the 2019 advanced volume requirement, when set next year, will determine the level of BBD production and imports that occur in 2019.[155] Therefore, EPA continues to believe that the same overall volume of BBD would likely be supplied in 2019 even if we were to mandate a somewhat lower or higher BBD volume for 2019 in this final rule. Thus, we do not expect our 2019 BBD volume requirement to result in a difference in the factors we consider pursuant to CAA section 211(o)(2)(B)(ii)(I)-(VI).

As an additional supplementary assessment, we have considered the potential impacts of selecting an applicable volume of BBD other than 2.1 billion gallons in 2019. Setting a requirement higher or lower than 2.1 billion gallons in 2019 would only be expected to impact BBD volumes on the margin, protecting to a greater or lesser degree BBD from competition with other potential advanced biofuels. In this supplementary assessment we have considered all of the statutory factors found in CAA section 211(2)(B)(ii), and as described in the 2019 BBD docket memorandum, our assessment does not appear, based on available information, to provide a reasonable basis for setting a higher or lower volume requirement for BBD than 2.1 billion gallons for 2019.

Overall and as described in the 2019 BBD docket memorandum, we have determined that both the primary assessment and the supplemental assessment of the statutory factors specified in CAA section 211(o)(2)(B)(ii)(I)-(VI) for the year 2019 does not provide significant support for setting the BBD standard at a level higher or lower than 2.1 billion gallons in 2019.

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[154] While excess BBD production could also displace conventional renewable fuel under the total renewable standard, as long as the BBD applicable volume is significantly lower than the advanced biofuel applicable volume our action in setting the BBD applicable volume is not expected to displace conventional renewable fuel under the total renewable standard, but rather other advanced biofuels.

[155] Even though we are not setting the 2019 advanced biofuel volume requirement as part of this rulemaking, we expect that the 2019 advanced volume requirement will be considerably higher than the 2019 BBD requirement, consistent with past practice and, therefore, that the BBD volume requirement for 2019 would not be expected to impact the volume of BBD that is actually produced and imported during the 2019-time period.

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VII. Percentage Standards for 2018

The renewable fuel standards are expressed as volume percentages and are used by each obligated party to determine their Renewable Volume Obligations (RVOs). Since there are four separate standards under the RFS program, there are likewise four separate RVOs applicable to each obligated party. Each standard applies to the sum of all non-renewable gasoline and diesel produced or imported. The percentage standards are set so that if every obligated party meets the percentages by acquiring and retiring an appropriate number of RINs, then the amount of renewable fuel, cellulosic biofuel, BBD, and advanced biofuel used will meet the applicable volume requirements on a nationwide basis.

Sections III through V provide our rationale and basis for the volume requirements for 2018.[156] The volumes used to determine the percentage standards are shown in Table VII-1.

Table VII-1
Volumes for Use in Setting the 2018 Applicable Percentage Standards (billion gallons)

Cellulosic biofuel	0.288
Biomass-based diesel[a]	2.10
Advanced biofuel	4.29
Renewable fuel	19.29

[a] Represents physical volume.

For the purposes of converting these volumes into percentage standards, we generally use two decimal places to be consistent with the volume targets as given in the statute, and similarly two decimal places in the percentage standards. However, for cellulosic biofuel we use three decimal places in both the volume requirement and percentage standards to more precisely capture the smaller volume projections and the unique methodology that in some cases results in estimates of only a few million gallons for a single producer.

A. Calculation of Percentage Standards

To calculate the percentage standards, we are following the same methodology for 2018 as we have in all prior years. The formulas used to calculate the percentage standards applicable to producers and importers of gasoline and diesel are provided in 40 CFR 80.1405. The formulas rely on estimates of the volumes of gasoline and diesel fuel, for both highway and nonroad uses, which are projected to be used in the year in which the standards will apply. The projected gasoline and diesel volumes are provided by EIA, and include projections of ethanol and biodiesel used in transportation fuel. Since the percentage standards apply only to the non-renewable gasoline and diesel produced or imported, the volumes of ethanol and biodiesel are subtracted out of the EIA projections of gasoline and diesel.

Transportation fuels other than gasoline or diesel, such as natural gas, propane, and electricity from fossil fuels, are not currently subject to the standards, and volumes of such fuels

[156] The 2018 volume requirement for BBD was established in the 2017 final rule.

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are not used in calculating the annual percentage standards. Since under the regulations the standards apply only to producers and importers of gasoline and diesel, these are the transportation fuels used to set the percentage standards, as well as to determine the annual volume obligations of an individual gasoline or diesel producer or importer.

As specified in the RFS2 final rule,[157] 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. For example, the RFS regulations provide that production or import of a gallon of qualifying biodiesel will lead to the generation of 1.5 RINs. The formula specified in the regulations for calculation of the BBD percentage standard is based on biodiesel-equivalence, and thus assumes that all BBD used to satisfy the BBD standard is biodiesel and requires that the applicable volume requirement be multiplied by 1.5. However, BBD often contains some renewable diesel, and a gallon of renewable diesel typically generates 1.7 RINs.[158] In addition, there is often some renewable diesel in the conventional renewable fuel pool. As a result, the actual number of RINs generated by biodiesel and renewable diesel is used in the context of our assessing reasonably attainable volumes for purposes of deriving the applicable volume requirements and associated percentage standards for advanced biofuel and total renewable fuel, and likewise in obligated parties' determination of compliance with any of the applicable standards. While there is a difference in the treatment of biodiesel and renewable diesel in the context of determining the percentage standard for BBD versus determining the percentage standard for advanced biofuel and total renewable fuel, it is not a significant one given our approach to determining the BBD volume requirement. Our intent in setting the BBD applicable volume is to provide a level of guaranteed volume for BBD, but as described in Section VI.B, we do not expect the BBD standard to be binding. That is, we expect that actual supply of BBD, as well as supply of conventional biodiesel and renewable diesel, will be driven by the advanced biofuel and total renewable fuel standards.

B. Small Refineries and Small Refiners

In CAA section 211(o)(9), enacted as part of the Energy Policy Act of 2005, and amended by the Energy Independence and Security Act of 2007, Congress provided a temporary exemption to small refineries[159] through December 31, 2010. Congress provided that small refineries could receive a temporary extension of the exemption beyond 2010 based either on the results of a required DOE study, or based on an EPA determination of "disproportionate economic hardship" on a case-by-case basis in response to small refinery petitions. In reviewing petitions, EPA, in consultation with the Department of Energy, evaluates whether the small refinery has demonstrated either disproportionate impacts or viability impairment, and may grant refineries exemptions upon demonstration of either criterion.

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[157] See 75 FR 14670 (March 26, 2010).
[158] Although in some cases a gallon of renewable diesel generates either 1.5 or 1.6 RINs.
[159] A small refiner that meets the requirements of 40 CFR 80.1442 may also be eligible for an exemption.

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EPA has granted exemptions pursuant to this process in the past. However, at this time no exemptions have been approved for 2018, and therefore we have calculated the percentage standards for 2018 without any adjustment for exempted volumes. EPA is maintaining its approach that any exemptions for 2018 that are granted after the final rule is released will not be reflected in the percentage standards that apply to all gasoline and diesel produced or imported in 2018.[160]

C. Final Standards

The formulas in 40 CFR 80.1405 for the calculation of the percentage standards require the specification of a total of 14 variables covering factors such as 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 exemptions for small refineries. The values of all the variables used for this final rule are shown in Table VII.C-1.[161]

[160] Further discussion of this issue can be found in the Response to Comments document in the docket for this action.

[161] To determine the 49-state values for gasoline and diesel, the amounts of these fuels used in Alaska is subtracted from the totals provided by DOE because petroleum based fuels used in Alaska do not incur RFS obligations. The Alaska fractions are determined from the June 29, 2016 EIA State Energy Data System (SEDS), Energy Consumption Estimates.

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Table VII.C-1
Values for Terms in Calculation of the 2018 Standards[162] (billion gallons)

Term	Description	Value
RFV_{CB}	Required volume of cellulosic biofuel	0.288
RFV_{BBD}	Required volume of biomass-based diesel	2.10
RFV_{AB}	Required volume of advanced biofuel	4.29
RFV_{RF}	Required volume of renewable fuel	19.29
G	Projected volume of gasoline	143.22
D	Projected volume of diesel	54.76
RG	Projected volume of renewables in gasoline	14.71
RD	Projected volume of renewables in diesel	2.53
GS	Projected volume of gasoline for opt-in areas	0
RGS	Projected volume of renewables in gasoline for opt-in areas	0
DS	Projected volume of diesel for opt-in areas	0
RDS	Projected volume of renewables in diesel for opt-in areas	0
GE	Projected volume of gasoline for exempt small refineries	0.00
DE	Projected volume of diesel for exempt small refineries	0.00

Projected volumes of gasoline and diesel, and the renewable fuels contained within them, were provided by EIA on October 11, 2017, as required in the statute at CAA section 211(o)(3)(A).

[162] See "Calculation of final % standards for 2018" in docket EPA-HQ-OAR-2017-0091.

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Using the volumes shown in Table VII.C-1, we have calculated the percentage standards for 2018 as shown in Table VII.C-2.

Table VII.C-2
Final Percentage Standards for 2018

Cellulosic biofuel	0.159 %
Biomass-based diesel	1.74 %
Advanced biofuel	2.37 %
Renewable fuel	10.67 %

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VIII. 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. complies with the "renewable biomass" requirements that address lands from which qualifying feedstocks may be harvested.[163] 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 was not exceeded, it was unlikely that new land outside of the 2007 baseline would be devoted to crop production based on historical trends and economic considerations. 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.

In the 2010 RFS2 rulemaking, EPA committed 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.

The Aggregate Compliance methodology provided for the exclusion of acreage enrolled in the Grassland Reserve Program (GRP) and the Wetlands Reserve Program (WRP) from the estimated total U.S. agricultural land. However, the 2014 Farm Bill terminated the GRP and WRP as of 2013 and USDA established the Agriculture Conservation Easement Program (ACEP) with wetlands and land easement components. The ACEP is a voluntary program that provides financial and technical assistance to help conserve agricultural lands and wetlands and their related benefits. Under the Agricultural Land Easements (ACEP-ALE) component, USDA helps Indian tribes, state and local governments, and non-governmental organizations protect working agricultural lands and limit non-agricultural uses of the land. Under the Wetlands Reserve Easements (ACEP-WRE) component, USDA helps to restore, protect and enhance enrolled wetlands. The WRP was a voluntary program that offered landowners the opportunity to protect, restore, and enhance wetlands on their property. The GRP was a voluntary conservation program that emphasized support for working grazing operations, enhancement of plant and animal biodiversity, and protection of grassland under threat of conversion to other uses.

USDA and EPA concur that the ACEP-WRE and ACEP-ALE represent a continuation in basic objectives and goals of the original WRP and GRP. Therefore, in preparing this year's assessment of the total U.S. acres of agricultural land, the acreage enrolled in the ACEP-WRE and ACEP-ALE was excluded.

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[163] 40 CFR 80.1454(g).

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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 376 million acres in 2017, and thus did not exceed the 2007 baseline acreage. This acreage estimate is based on the same methodology used to set the 2007 baseline acreage for U.S. agricultural land in the RFS2 final rulemaking, with the GRP and WRP substitution as noted above. Specifically, we started with FSA crop history data for 2017, from which we derived a total estimated acreage of 379,220,752 acres. We then subtracted the ACEP-ALE and ACEP-WRE enrolled areas by the end of Fiscal Year 2017, 2,777,887 acres, to yield an estimate of 376,442,865 acres or approximately 376 million acres of U.S. agricultural land in 2017. The USDA data used to make this derivation can be found in the docket to this rule.[164]

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.[165] On September 29, 2011, EPA approved such a petition from the Government of Canada.

The total agricultural land in Canada in 2017 is estimated at 117.8 million acres. This total agricultural land area includes 95.5 million acres of cropland and summer fallow, 12.5 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. The data used to make this calculation can be found in the docket to this rule.

C. RIN Market Operation

Some stakeholders have expressed concerns that the current regulatory provisions related to RIN trading render the RFS program vulnerable to market manipulation. The EPA takes such issues seriously. The RIN system was originally designed with an open trading market in order to maximize its liquidity and ensure a robust marketplace for RINs. However, the EPA is interested in assessing whether and how the current trading structure provides an opportunity for market manipulation. To that effect, the EPA sought comment and input on this issue, including on potential changes to the RIN trading system that might help address these concerns. We received comments from stakeholders suggesting a number changes to the RIN trading system. While EPA received many comments that are helpful to highlight opportunities for improvement to the RIN system, we are not in a position to make significant changes to the RIN system at this time. However, we intend to explore these suggested changes and are open to suggestions for making

[164] As in 2016, USDA again provided EPA with 2017 data from the discontinued GRP and WRP programs. Given this data, EPA estimated the total U.S. agricultural land both including and omitting the GRP and WRP acreage. In 2017, combined land under GRP and WRP totaled 349,146 acres. Subtracting the GRP, WRP, ACEP-WRE, and ACEP-ALE acreage yields an estimate of 376,093,719 acres or approximately 376 million total acres of U.S. agricultural land in 2017. Omitting the GRP and WRP data yields approximately the same 376 million acres of U.S. agricultural land in 2017.
[165] 40 CFR 80.1457.

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changes in the future that are within our authority and would help to improve the function and liquidity of the RIN system.

Separate from evaluating the RIN trading options in the RFS program, the EPA is working with appropriate market regulators to analyze targeted concerns of some stakeholders. Although the EPA has not seen evidence of manipulation in the RIN market, the EPA is not a commodity market regulatory agency, and thus we do not have expertise in this field. Claims of market manipulation prompted the EPA to execute a memorandum of understanding (MOU) with the U.S. Commodity Futures Trading Commission (CFTC), which has the authority and expertise to investigate such claims.

In the meantime, the EPA has continued to explore additional ways to increase program transparency in order to support the program and share data with all stakeholders. The EPA already publishes RFS program data on our website, including data related to RIN generation, sales and holdings, and annual compliance[166]. We are interested in providing more information, to the extent consistent with our obligations to protect confidential business information (CBI). The EPA sought comment on specific data elements and posting frequency that stakeholders believe would be useful to help with market transparency and liquidity. We received comments from stakeholders suggesting a number of different types of data that commenters suggested would be useful to the industry and public. The EPA will need to further evaluate each of these suggestions to determine which information we can be post and, if so, whether we can post it at the frequency that was suggested by the commenters. Our decisions with respect to these suggestions must necessarily strike a balance between achieving the greatest transparency possible, while working within the limitations of our authority and resources (including technology systems), and protecting information that is claimed as CBI.

[166] For public data on the RFS and other EPA fuel programs, refer to: https://www.epa.gov/fuels-registration-reporting-and-compliance-help/public-data-and-registration-lists-fuel-programs.

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IX. Public Participation

Many interested parties participated in the rulemaking process that culminates with this final rule. This process provided opportunity for submitting written public comments following the proposal that we published on July 21, 2017 (82 FR 34206), and we also held a public hearing on August 1, 2017, at which many parties provided both verbal and written testimony. All comments received, both verbal and written, are available in Docket ID No. EPA-HQ-OAR-2017-0091 and we considered these comments in developing the final rule. Public comments and EPA responses are discussed throughout this preamble and in the accompanying Response to Comment document, which is available in the docket for this action.

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X. Statutory and Executive Order Reviews

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

This action is 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. The EPA prepared an analysis of illustrative costs associated with this action. This analysis is presented in Section IV.E of this preamble.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is considered an Executive Order 13771 regulatory action. Details on the estimated costs of this final rule can be found in EPA's analysis of the illustrative costs associated with this action. This analysis is presented in Section IV.E of this preamble.

C. Paperwork Reduction Act (PRA)

This action does not impose any new information collection burden under the PRA. OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control numbers 2060-0637 and 2060-0640. The final standards will not impose new or different reporting requirements on regulated parties than already exist for the RFS program.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden, or otherwise has a positive economic effect on the small entities subject to the rule.

The small entities directly regulated by the RFS program are small refiners, which are defined at 13 CFR 121.201. We have evaluated the impacts of this final rule on small entities from two perspectives: as if the 2018 standards were a standalone action or if they are a part of the overall impacts of the RFS program as a whole.

When evaluating the standards as if they were a standalone action separate and apart from the original rulemaking which established the RFS2 program, then the standards could be viewed as increasing the advanced and total renewable fuel volumes required of obligated parties by 10 million gallons between 2017 and 2018. To evaluate the impacts of the volume requirements on

small entities relative to 2017, EPA has conducted a screening analysis[167] to assess whether it should make a finding that this action would 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 would not be significant. EPA has reviewed and assessed the available information, which shows that obligated parties, including small entities, are generally 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.[168, 169] 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 generally being passed on to consumers in the highly competitive marketplace. Even if we were to assume that the cost of acquiring RINs were not recovered by obligated parties, and we used the maximum values of the illustrative costs discussed in Section IV.E of this preamble and the gasoline and diesel fuel volume projections and wholesale prices from the October 2017 version of EIA's Short-Term Energy Outlook, and current wholesale fuel prices, a cost-to-sales ratio test shows that the costs to small entities of the RFS standards are far less than 1 percent of the value of their sales.

While the screening analysis described above supports a certification that this rule would 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 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 (75 FR 14670, March 26, 2010), which was the rule that implemented the entire program required by the Energy Independence and Security Act of 2007 (EISA 2007). 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, EPA 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, it was 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).

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[167] "Screening Analysis for the Final Renewable Fuel Standard Program Renewable Volume Obligations for 2018," memorandum from Dallas Burkholder, Nick Parsons, and Tia Sutton to EPA Air Docket EPA-HQ-OAR-2017-0091.
[168] For a further discussion of the ability of obligated parties to recover the cost of RINs see "A Preliminary Assessment of RIN Market Dynamics, RIN Prices, and Their Effects," Dallas Burkholder, Office of Transportation and Air Quality, US EPA. May 14, 2015, EPA Air Docket EPA-HQ-OAR-2015-0111.
[169] Knittel, Christopher R., Ben S. Meiselman, and James H. Stock. "The Pass-Through of RIN Prices to Wholesale and Retail Fuels under the Renewable Fuel Standard." Working Paper 21343. NBER Working Paper Series. Available online at http://www.nber.org/papers/w21343.pdf.

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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. This rule establishes the 2018 advanced and total renewable fuel volume requirements at levels 10 million gallons higher than the 2017 volume requirements, and significantly below the statutory volume targets. This exercise of EPA's waiver authority reduces burdens on small entities, as compared to the burdens that would be imposed under the volumes specified in the Clean Air Act in the absence of waivers – which are the volumes that we assessed in the screening analysis that we prepared for implementation of the full program. Regarding the BBD standard, we are maintaining the volume requirement for 2019 at the same level as 2018. While this volume is an increase over the statutory minimum value of 1 billion gallons, the BBD standard is a nested standard within the advanced biofuel category, which we are significantly reducing from the statutory volume targets. As discussed in Section VI, we are setting the 2019 BBD volume requirement at a level below what is anticipated will be produced and used to satisfy the reduced advanced biofuel requirement. The net result of the standards being established in this action is a reduction in burden as compared to implementation of the statutory volume targets, as was 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 compliance flexibilities in the program that can help to reduce impacts on small entities. 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, providing 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.

Additionally, as we realize that there may be cases in which a small entity may be in a difficult financial situation and the level of assistance afforded by the program flexibilities is insufficient. For such circumstances, the program provides hardship relief provisions for small entities (small refiners), as well as for small refineries.[170] As required by the statute, the RFS regulations include a hardship relief provision (at 40 CFR 80.1441(e)(2)) that allows for a small refinery to petition for an extension of its small refinery exemption at any time based on a showing that compliance with the requirements of the RFS program would result in the refinery experiencing a "disproportionate economic hardship." EPA regulations provide similar relief to small refiners that are not eligible for small refinery relief (see 40 CFR 80.1442(h)). EPA evaluates these petitions on a case-by-case basis and may approve such petitions if it finds that a disproportionate economic hardship exists. In evaluating such petitions, EPA consults with the U.S. Department of Energy, and takes the findings of DOE's 2011 Small Refinery Study and

[170] See CAA section 211(o)(9)(B).

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other economic factors into consideration. EPA successfully implemented these provisions by evaluating petitions for exemption from 14 small refineries for the 2016 RFS standards.[171]

Given that this final rule would not impose additional requirements on small entities, would decrease burden via a reduction in required volumes as compared to statutory volume targets, would not change the compliance flexibilities currently offered to small entities under the RFS program (including the small refinery hardship provisions we continue to successfully implement), and available information shows that the impact on small entities from implementation of this rule would not be significant 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 would have no net regulatory burden for directly regulated small entities.

E. 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 of the rule.

F. 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.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

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

H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may

[171] EPA is currently evaluating 2 additional 2016 petitions, bringing the total number of petitions for 2016 to 16.

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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)) and does not concern an environmental health risk or safety risk.

I. 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 2018, consistent with the CAA and waiver authorities provided therein. The RFS program and this rule are designed to achieve positive effects on the nation's transportation fuel supply, by increasing energy independence and lowering lifecycle GHG emissions of transportation fuel.

J. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

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

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low income populations, and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). This final rule does not affect the level of protection provided to human health or the environment by applicable air quality standards. This action does not relax the control measures on sources regulated by the RFS regulations and therefore will not cause emissions increases from these sources.

L. 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).

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XI. Statutory Authority

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

List of Subjects in 40 CFR Part 80:
Environmental protection, Administrative practice and procedure, Air pollution control, Diesel fuel, Fuel additives, Gasoline, Imports, Oil imports, Petroleum, Renewable fuel.

_____
Dated:

_____
E. Scott Pruitt,
Administrator.

This document is a prepublication version, signed by EPA Administrator Scott Pruitt on 11/30/2017. We have taken steps to ensure the accuracy of this version, but it is not the official version.

For the reasons set forth in the preamble, EPA amends 40 CFR part 80 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 M – [Amended]

2. Section 80.1405 is amended by adding new paragraph (a)(9) to read as follows:

§ 80.1405 What are the Renewable Fuel Standards?
(a) * * *
(9) Renewable Fuel Standards for 2018.
(i) The value of the cellulosic biofuel standard for 2018 shall be 0.159 percent.
(ii) The value of the biomass-based diesel standard for 2018 shall be 1.74 percent.
(iii) The value of the advanced biofuel standard for 2018 shall be 2.37 percent.
(iv) The value of the renewable fuel standard for 2018 shall be 10.67 percent.
* * * * *

To: Grundler, Christopher[grundler.christopher@epa.gov]
Cc: Whitman, Peter[Peter.Whitman@hq.doe.gov]; White, Thomas[Thomas.White@hq.doe.gov]
From: Difiglio, Carmine
Sent: Mon 3/30/2015 2:15:58 PM
Subject: RE: DOE-EPA RFS small refiners meeting wk of April 6 for HEWD and SEWD majority

Chris,

Call me if you have any questions about this. Having Byron Bunker at this meeting with our appropriators would be very helpful.

Carmine

Carmine Difiglio, Ph.D.
Deputy Director for Energy Security
Office of Energy Policy and Systems Analysis
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585
carmine.difiglio@hq.doe.gov
+1-202-586-8436
Personal Privacy / Ex 6

From: Winslow, Kyle
Sent: Monday, March 30, 2015 10:12 AM
To: 'grundler.christopher@epa.gov'
Cc: Difiglio, Carmine
Subject: RE: DOE-EPA RFS small refiners meeting wk of April 6 for HEWD and SEWD majority

Hello,

I was just following up on this to see if your designee would be interested / able to attending a briefing on RFS small refiners exemption with House and Senate Appropriations majority staff on the afternoon of Apr. 7 or 8?

Thanks for your help,

Kyle

From: Winslow, Kyle
Sent: Thursday, March 26, 2015 11:20 AM
To: 'grundler.christopher@epa.gov'
Subject: DOE-EPA RFS small refiners meeting wk of April 6 for HEWD and SEWD majority

Chris,

DOE CFO is setting up a briefing at the request of HEWD and SEWD majority staff for the week of April 6 to discuss the Renewable Fuel Standard and the small refiners exemption.

In particular, SEWD/HEWD want to:

- Understand the small refiner issue better,
- Understand what is the profit threshold is, when it was changed or set, and
- Why and whether this is a controversial issue.

Carmine Difiglio of DOE's Office of Energy Policy and Systems Analysis suggested that we reach out to you because EPA participation would be helpful. Carmine mentioned Byron Bunker or another designee might want to attend this briefing.

We'd like to shoot for the afternoon of the Apr. 7th or some time on the 8th. Could you let us know who you'd like to attend, and if these times work? Alternatively, please let us who from EPA we should be working with to make sure you are represented.

Thanks,

Message

From: Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]
Sent: 4/8/2018 4:14:19 PM
To: Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]
Subject: Fwd: RFS Information

FYI

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

Begin forwarded message:

From: "Wehrum, Bill" <Wehrum.Bill@epa.gov>
Date: April 6, 2018 at 6:15:43 PM EDT
To: "steve.censky@osec.usda.gov" <steve.censky@osec.usda.gov>
Cc: "Gunasekara, Mandy" <Gunasekara.Mandy@epa.gov>, "Beach, Allie - OSEC, Washington, DC" <Allison.Beach@osec.usda.gov>
Subject: RFS Information

Hi Steve. In response to your request for information about small refinery exemptions, Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

Message

From: Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]
Sent: 4/7/2018 2:13:42 PM
To: Beach, Allie - OSEC, Washington, DC [Allison.Beach@osec.usda.gov]
CC: Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]
Subject: Re: RFS Information

Thanks Allie.

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

On Apr 6, 2018, at 9:40 PM, Beach, Allie - OSEC, Washington, DC <Allison.Beach@osec.usda.gov> wrote:

> Bill,
>
> I will forward, and his email for future is Stephen.censky@osec.usda.gov.
>
> Thanks,
> Allie
>
> On Apr 6, 2018, at 6:17 PM, Wehrum, Bill <Wehrum.Bill@epa.gov> wrote:
>
>> Allie – I would appreciate it if you would forward this to Steve. I don't seem to have his correct e-mail address. Thanks.
>>
>> _____
>> Bill Wehrum
>> Assistant Administrator
>> Office of Air and Radiation
>> U.S. Environmental Protection Agency
>> (202) 564-7404
>>
>> **From:** Wehrum, Bill
>> **Sent:** Friday, April 6, 2018 6:16 PM
>> **To:** 'steve.censky@osec.usda.gov' <steve.censky@osec.usda.gov>
>> **Cc:** Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; 'Beach, Allie - OSEC, Washington, DC' <Allison.Beach@osec.usda.gov>
>> **Subject:** RFS Information
>>
>> Hi Steve. In response to your request for information about small refinery exemptions, Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

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Message

From: Yunaska, Kyle [Kyle.Yunaska@hq.doe.gov]
Sent: 10/18/2017 9:26:27 PM
To: Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]
CC: Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]
Subject: RE: Small Refiners Coalition Meeting

Thanks,

I will talk to DOE GC to see if they have an opinion.

From: Dominguez, Alexander [mailto:dominguez.alexander@epa.gov]
Sent: Wednesday, October 18, 2017 5:21 PM
To: Yunaska, Kyle <Kyle.Yunaska@hq.doe.gov>
Cc: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>
Subject: RE: Small Refiners Coalition Meeting

Kyle,

Deliberative Process / Ex. 5

Alex

From: Yunaska, Kyle [mailto:Kyle.Yunaska@hq.doe.gov]
Sent: Wednesday, October 18, 2017 4:21 PM
To: Dominguez, Alexander <dominguez.alexander@epa.gov>; Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>
Subject: RE: Small Refiners Coalition Meeting

Alex, Mandy,

To clarify, the meeting will be between EPA, DOE, and the Small Refiners Coalition to discuss their recommendations to update the scoring metrics, correct? **Deliberative Process / Ex. 5**

Deliberative Process / Ex. 5

Thanks,
Kyle

From: Yunaska, Kyle
Sent: Tuesday, October 17, 2017 10:48 AM
To: 'Dominguez, Alexander' <dominguez.alexander@epa.gov>
Subject: RE: Small Refiners Coalition Meeting

Hi Alex,

Friday, October 27th at 3:00 would work best.

Thanks,
Kyle

From: Dominguez, Alexander [mailto:dominguez.alexander@epa.gov]
Sent: Monday, October 16, 2017 3:14 PM
To: Yunaska, Kyle <Kyle.Yunaska@hq.doe.gov>
Subject: RE: Small Refiners Coalition Meeting

Hey Kyle,

Let me know if any of these windows work on your end:

Friday, Oct 27th – 2:00 - close
Monday, Oct 30th – 11:00 - 2:00
Thursday, Nov 2nd – 3:00 – close
Friday, Nov 3rd – 1:00 – 3:00 or 4:00 – 5:00

Alex

From: Yunaska, Kyle [mailto:Kyle.Yunaska@hq.doe.gov]
Sent: Thursday, October 12, 2017 10:01 AM
To: Dominguez, Alexander <dominguez.alexander@epa.gov>
Cc: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>
Subject: RE: Small Refiners Coalition Meeting

Hi Alex,

Thanks for setting this up. There are a few others at DOE who would like to join. The week of the 30th may work better but no strong preference.

Best,
Kyle

From: Dominguez, Alexander [mailto:dominguez.alexander@epa.gov]
Sent: Tuesday, October 10, 2017 9:43 AM
To: Yunaska, Kyle <Kyle.Yunaska@hq.doe.gov>
Cc: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>
Subject: Small Refiners Coalition Meeting

Hey Kyle,

Hope you had a good weekend. I'm following up on the call from last week on setting up a joint DOE/EPA meeting with the Small Refiners Coalition on the hardship petition process and scoring metrics. If possible, we would like to have the meeting either the week of October 23rd or 30th. We are happy to host and just let me know if any dates/times work best on your end.

For your reference, attached is a memo the Coalition presented us in our last meeting on streamlining the petition process.

Best,

Alex

Alex Dominguez
Policy Analyst to the Senior Advisors to the Administrator for Air and Water
U.S. Environmental Protection Agency
Direct: 202-564-3164
Cell: 202-578-5989

Message

From: Yunaska, Kyle [Kyle.Yunaska@hq.doe.gov]
Sent: 1/5/2018 3:28:12 PM
To: Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]
Subject: RE: RFS Small Refinery Options

Yes - 2:45 is great.

202.586.3427
Cell: Personal Privacy / Ex 6

Best,
Kyle

-----Original Message-----
From: Gunasekara, Mandy [mailto:Gunasekara.Mandy@epa.gov]
Sent: Thursday, January 04, 2018 5:03 PM
To: Yunaska, Kyle <Kyle.Yunaska@hq.doe.gov>; Dominguez, Alexander <dominguez.alexander@epa.gov>
Subject: RE: RFS Small Refinery Options

Hey Kyle - yes. Does tomorrow at 2:45 work?

-----Original Message-----
From: Yunaska, Kyle [mailto:Kyle.Yunaska@hq.doe.gov]
Sent: Thursday, January 4, 2018 4:55 PM
To: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; Dominguez, Alexander <dominguez.alexander@epa.gov>
Subject: RE: RFS Small Refinery Options

Hi Mandy and Alex,

Following up to see if you have time for a quick call tomorrow or next week.

Best,
Kyle

-----Original Message-----
From: Yunaska, Kyle
Sent: Friday, December 22, 2017 12:29 PM
To: 'Gunasekara.Mandy@epa.gov' <Gunasekara.Mandy@epa.gov>
Subject: FW: RFS Small Refinery Options

Hi Mandy,

Please let me know when you may have time--over the next few weeks--for a quick call with me to get on the same page with small refinery evaluations. I am leaving at 2:00 today and back Tuesday afternoon, otherwise here.

Thanks,
Kyle

202.586.3427
Cell: Personal Privacy / Ex 6

-----Original Message-----
From: Maddox, Mark
Sent: Tuesday, December 12, 2017 5:33 PM
To: Yunaska, Kyle <Kyle.Yunaska@hq.doe.gov>; Matheney, Doug <Doug.Matheney@hq.doe.gov>
Cc: Cunningham, Sean <Sean.Cunningham@hq.doe.gov>
Subject: RE: RFS Small Refinery Options

Kyle,

Bear with me because I may not be clear as to what I want. Deliberative Process / Ex. 5
Deliberative Process / Ex. 5 I want to make certain we are compliant with their instructions before we develop a new plan that is not consistent with EPA's constraints.

Sorry to create new work!

Mark R. Maddox
Principal Deputy Assistant Secretary
Office of Fossil Energy
U.S. Department of Energy
202.586.6660
mrmaddox@hq.doe.gov

-----Original Message-----
From: Yunaska, Kyle
Sent: Tuesday, December 12, 2017 5:13 PM
To: Maddox, Mark <MRMaddox@hq.doe.gov>; Matheney, Doug <Doug.Matheney@hq.doe.gov>
Cc: Cunningham, Sean <Sean.Cunningham@hq.doe.gov>
Subject: RFS Small Refinery Options

Mark and Doug,

Per our RFS conversations, attached is an assessment of DOE's small refinery exemption evaluation program and pros and cons for various options. I recommend we meet with John Powell to further develop. Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Kyle R. Yunaska
Senior Advisor and Chief of Staff
Office of Energy Policy and Systems Analysis U.S. Department of Energy

Message

From: Yunaska, Kyle [Kyle.Yunaska@hq.doe.gov]
Sent: 10/23/2017 3:31:59 PM
To: Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]
CC: Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]
Subject: RE: Small Refiners Coalition Meeting

Hi Alex,

Could you please send me the street address, room number, and call-in information for this meeting, if available?

Thanks,
Kyle

From: Yunaska, Kyle
Sent: Monday, October 23, 2017 10:47 AM
To: 'Dominguez, Alexander' <dominguez.alexander@epa.gov>
Cc: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>
Subject: RE: Small Refiners Coalition Meeting

Hi Alex,

I just talked to DOE General Counsel who did not see an issue with DOE joining the meeting in mostly a listening/information gathering capacity. Of course, they were looking at it from DOE's perspective only, Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Were you able to find out any additional information on your end?

Kyle

From: Dominguez, Alexander [mailto:dominguez.alexander@epa.gov]
Sent: Wednesday, October 18, 2017 5:21 PM
To: Yunaska, Kyle <Kyle.Yunaska@hq.doe.gov>
Cc: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>
Subject: RE: Small Refiners Coalition Meeting

Kyle,

Deliberative Process / Ex. 5

Alex

From: Yunaska, Kyle [mailto:Kyle.Yunaska@hq.doe.gov]
Sent: Wednesday, October 18, 2017 4:21 PM

To: Dominguez, Alexander <dominguez.alexander@epa.gov>; Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>
Subject: RE: Small Refiners Coalition Meeting

Alex, Mandy,

To clarify, the meeting will be between EPA, DOE, and the Small Refiners Coalition to discuss their recommendations to update the scoring metrics, correct? **Deliberative Process / Ex. 5**

Deliberative Process / Ex. 5

Thanks,
Kyle

From: Yunaska, Kyle
Sent: Tuesday, October 17, 2017 10:48 AM
To: 'Dominguez, Alexander' <dominguez.alexander@epa.gov>
Subject: RE: Small Refiners Coalition Meeting

Hi Alex,

Friday, October 27th at 3:00 would work best.

Thanks,
Kyle

From: Dominguez, Alexander [mailto:dominguez.alexander@epa.gov]
Sent: Monday, October 16, 2017 3:14 PM
To: Yunaska, Kyle <Kyle.Yunaska@hq.doe.gov>
Subject: RE: Small Refiners Coalition Meeting

Hey Kyle,

Let me know if any of these windows work on your end:

Friday, Oct 27th – 2:00 - close
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Thursday, Nov 2nd – 3:00 – close
Friday, Nov 3rd – 1:00 – 3:00 or 4:00 – 5:00

Alex

From: Yunaska, Kyle [mailto:Kyle.Yunaska@hq.doe.gov]
Sent: Thursday, October 12, 2017 10:01 AM
To: Dominguez, Alexander <dominguez.alexander@epa.gov>
Cc: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>
Subject: RE: Small Refiners Coalition Meeting

Hi Alex,

Thanks for setting this up. There are a few others at DOE who would like to join. The week of the 30th may work better but no strong preference.

Best,
Kyle

From: Dominguez, Alexander [mailto:dominguez.alexander@epa.gov]
Sent: Tuesday, October 10, 2017 9:43 AM
To: Yunaska, Kyle <Kyle.Yunaska@hq.doe.gov>
Cc: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>
Subject: Small Refiners Coalition Meeting

Hey Kyle,

Hope you had a good weekend. I'm following up on the call from last week on setting up a joint DOE/EPA meeting with the Small Refiners Coalition on the hardship petition process and scoring metrics. If possible, we would like to have the meeting either the week of October 23rd or 30th. We are happy to host and just let me know if any dates/times work best on your end.

For your reference, attached is a memo the Coalition presented us in our last meeting on streamlining the petition process.

Best,
Alex

Alex Dominguez
Policy Analyst to the Senior Advisors to
the Administrator for Air and Water
U.S. Environmental Protection Agency
Direct: 202-564-3164
Cell: 202-578-5989

Message

From: Gunasekara, Mandy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=53D1A3CAA8BB4EBAB8A2D28CA59B6F45-GUNASEKARA,]
Sent: 6/13/2018 9:03:10 PM
To: Raymond.Starling@osec.usda.gov
CC: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]
Subject: RVO

Hey Ray,

I'm with the Administrator (only for about 10 more minutes). Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Personal Phone / Ex. 6 is my cell.

Best,
Mandy

Sent from my iPhone

Message

From: Maisano, Frank [frank.maisano@bracewell.com]
Sent: 8/20/2018 6:55:39 PM
To: Maisano, Frank [frank.maisano@bracewell.com]
Subject: Aug 20 PRG Energy Update:CPP Replacement, Chamber on Utility Savings, RVO Comments In

Friends,

Hope your August is going great. Personal Matters / Ex. 6

Personal Matters / Ex. 6

And it hasn't really slowed down in DC either. Last week, we had 2019 RFS RVO comments due and the Chamber's Global Energy Institute released a new analysis that quantifies billions of dollars of savings in lower electric bills Americans are starting to realize stemming from enactment of the Tax Cut & Jobs Act. Then this week, we expect to see the roll out of the Clean Power Plan replacement which is yet to be named. President Trump is expected to announce the new plan in West Virginia tomorrow. The *New York Times*, *Washington Post* and *Wall Street Journal* all had stories.

My colleague Scott Segal said "the previous administration's effort to address greenhouse gases was a complex and unnecessarily burdensome overreach that took much of the responsibility for power systems away from the state regulators who know them best. He adds "the replacement rule is premised on the fact that states are in a better position to judge the inventory of measures available to reduce carbon emissions within their power sectors. That's consistent with decades of integrated resource planning that takes places at the state level, the shared responsibilities under the Clean Air Act, and the traditional federalism that governs utility regulation in most states." Both Segal and Holmstead will be available this week. I also expect our friends at the Chamber's Global Energy Institute will also have comments, background and analysis as well.

Not much shaking this week other than the meetings with SCOTUS nominee Brett Kavanaugh and we hear rumors that the Senate may shut it down after finishing a few more funding bills. Action includes Senator Peter's hosting a field hearing today in Traverse City on pipeline safety while Senate Environment (and Public Works) holds a field hearing in Ellicott City on the Federal role in preventing future flooding. Tomorrow, Senate Energy looks at energy efficiency and blockchain while Sen. Judiciary hosts witnesses like SoCo CEO Tom Fanning on protecting critical infrastructure at 2:30 p.m. On Wednesday, Senate Energy discusses several bills related to land, forest and mineral extraction including Helium Extraction.

Also this week, EPRI is hosting its Electrification conference in Long Beach. They also have recently introduced a new #sharegrid concept (including a great white board video) that outlines the shared, integrated grid concept and how it will improve customers' energy assets all while enhancing grid reliability, resiliency and value for all.

Finally, there is new interesting research from MIT on pavement's impact on urban heat island and its impact on climate change. "Albedo" is the measure of how much solar energy is reflected by the Earth's surface. Low albedo, or darker color, surfaces absorb more heat and reflect less shortwave radiation than high albedo, or lighter color, surfaces. Increasing pavement albedo has been considered as a strategy to mitigate impacts of climate change, but evaluating the effectiveness of such strategies requires context-specific data on climate conditions. MIT's CSHub has developed an analytical approach to quantify global warming potential savings resulting from increases in pavement albedo. More detail on this soon.

The comment period closes today for CEQ's NEPA reform plan. We are following closely. Enjoy the last two weeks of August. Call with questions – especially on CPP-related issues...Best,

Frank Maisano
(202) 828-5864
c. (202) 997-5932

FRANKLY SPOKEN

"Our new analysis shows that the Tax Cuts and Jobs Act of 2017 is reducing energy costs for both residential customers and industrial users. Utilities that have seen relief from their tax bills are passing those savings onto their customers, which ultimately saves consumers money. This savings is resulting in increased economic productivity and more jobs around the country."

Karen Harbert, president and CEO of the U.S. Chamber's Global Energy Institute, rolling out a New report that looks at the benefits utility customers are reaching due to the Administration tax relief plan.

"The previous administration's effort to address greenhouse gases was a complex and unnecessarily burdensome overreach that took much of the responsibility for power systems away from the state regulators who know them best. It is why 29 states pushed back against the rules and the Supreme Court blocked their implementation with which an unprecedented stay. It is clear this Administration and its EPA seem likely to address this issue within the framework of the Clean Air Act and give states a significant role in managing the reliability and environmental performance of their power sectors.

Finally, the replacement rule is premised on the fact that states are in a better position to judge the inventory of measures available to reduce carbon emissions within their power sectors. That's consistent with decades of integrated resource planning that takes places at the state level, the shared responsibilities under the Clean Air Act, and the traditional federalism that governs utility regulation in most states."

Scott Segal commenting on the expected new release of the Trump Administration's redo of the Clean Power Plan, expected to be released on Tuesday in West Virginia.

ON THE POD

Cap Crude Looks at Russian Sanctions – The Platts Capitol Crude podcast focuses on Russia with Congress considering a raft of new sanctions against Russia that could hit energy trade. Agnia Grigas, a senior fellow at the Atlantic Council and author of The New Geopolitics of Natural Gas, discusses the potential risks to oil and gas investment, including the Nord Stream 2 pipeline.

FUN OPINIONS

Former Energy Secretary Says Ethanol Bad Policy – As a former senator from an agricultural state and a former U.S. Energy secretary, Spence Abraham recently wrote in The Hill that both American agriculture and our independent refineries can succeed. Unfortunately, the current structure of the federal biofuel mandate fails to achieve these goals. Abraham wrote: "As the U.S. Energy secretary during the passage of the first RFS, I can categorically state that the RIN system was not meant to create a multibillion-dollar commodity market that serves to subsidize large-scale blenders and vertically integrated oil companies at the expense of smaller and independent refiners. The administration and Congress must act to reform the RFS in a way that keeps RIN costs under control, while also ensuring robust domestic biofuel use. Recent experience proves such a 'win-win' can be achieved to save manufacturing jobs in the Rust Belt, without adversely impacting the Corn Belt. The president previously considered taking more permanent action to achieve this goal. Now would be a great time for him to finish the job."

IN THE NEWS

Chamber Report Says Tax Cuts Will Reduce Power Bills – The Chamber's Global Energy Institute (GEI) will release new analysis that quantifies billions of dollars of savings in lower electric bills Americans are starting to realize stemming

from enactment of the Tax Cut & Jobs Act. Investor owned utilities (IOU) saw significant tax rate reductions from comprehensive tax reform and are now passing on that savings to their customers. GEI quantified that total savings in 12 representative states and further calculated the average residential customers' savings. With businesses and families keeping more of their money, we also modeled the additional economic growth and job creation expected to occur. The 12 representative states GEI analyzed were Alabama, Arizona, California, Florida, Georgia, Maine, Michigan, Minnesota, Missouri, Nevada, Texas and Virginia. Across those states, customer savings over the next five years (2018-2022) will range from $100 million in Maine to over $3 billion in California. Each state also sees meaningful GDP and job gains as a result of these customer savings.

RVO Comments Pour In – On Friday, the comment period for the 2019 Renewable Volume obligations (RVO) for the Renewable Fuels Standard closed. There were many comments from both sides, But the opponents are a broad-based group of refiners, labor unions, conservative and environmental groups. Here are some highlights:

1) United Steelworkers -- *Roxanne Brown, Legislative Director, United Steelworkers:*

Our union believes that reducing the U.S.'s reliance on foreign oil and focusing on energy independence is a meaningful policy goal not just for strategic and employment reasons, but for our environment as well. However, current RFS policy has led to increased foreign imports of biofuels, including biomass-based diesel fuel, undermining Congressional intent of the RFS.

The reduced availability of additional biofuels to blend into the system creates logistical and technological challenges commonly known as the "blend-wall". This has led to significant cost impacts for refineries as compliance costs related to Renewable Identification Number (RIN's) pricing, which has wildly fluctuated based off of no logical demand structure, creates uncertainty for refineries and undermines long term investment strategies for domestic refining. USW encourages the EPA to develop realistic biofuel assumptions that recognize the significant changes in fuels policy and the continued inability of commercially viable cellulosic biofuel to enter the market.

2) The Toledo Chamber of Commerce – *Brian Dicken, Vice President, Advocacy & Public Policy, Toledo Regional Chamber of Commerce*

We are encouraged that EPA is taking comment on RIN market reforms, but believe such reforms should be dealt with in the final RVO and not via a separate rulemaking. Even biofuel interests have questioned the volatility of the RIN market. The history of the program shows wild swings in RIN costs, but the percentage of ethanol blended into gasoline has stayed at around 10 cents regardless of whether RINs are three cents or $1.40.

Public comments EPA received for last year's RVO detailed several observations of possible market manipulation that are illegal in other contexts, but not controlled or regulated in relation to the RIN market. EPA must act to prevent anti-consumer manipulative practices and should advance RIN market reforms in the final 2019 RVO, rather than wait to pursue measures addressing RIN market integrity in the future.

3) IBEW Local 8 in NW Ohio – *Stephen Brown, Business Representative, International Brotherhood of Electrical Workers Local Union No. 8. Local 8 represents over 1,600 electrical workers in Northwest Ohio and Southeast Michigan; its jurisdiction includes the Toledo Refinery Company (TRC):*

EPA's proposed increase in the RFS requirement over 2018 levels fails to recognize the blendwall and the uneven playing field among RFS obligated parties. It could result in upward pressure on RIN costs, which as we saw earlier this year with Philadelphia Energy Solutions (PES), would once again threaten highly skilled domestic refining industry jobs.

A look back at the last six months proves EPA can help prevent RIN price spikes without adversely impacting biofuel consumption. A combination of RFS reform discussions and small refiner waivers has resulted in RIN prices decreasing from 90 cents last November to approximately 20 cents recently. Despite these factors, U.S. Energy Information Administration (EIA) monthly data shows there has been NO backtracking on biofuel blending. In fact, the blend rate in the first quarter of this year was slightly higher than it was in the first quarter of last year. This has all occurred in

conjunction with small refiner waivers and falling RIN prices. The facts to date show that domestic biofuel use will remain robust, even when the standard is waived for parts of the industry.

4) NJ Senate Majority Leader Sweeney, Dep. Assembly Speaker Burzichelli – *Stephen Sweeney, Senate President, New Jersey Senate & General Assembly:*

The proposed increase in the RFS requirement over 2018 levels fails to recognize the blendwall and the uneven playing field among RFS obligated parties. It could result in upward pressure on RIN costs, which as we saw earlier this year with Philadelphia Energy Solutions (PES), would once again threaten highly skilled domestic refining industry jobs.

In the high RIN price environment of the last two years, RINs became the [Paulsboro, NJ] refinery's most significant operating expense; rising above pay, benefits and energy costs. The refinery spent nearly $150 million from 2015 to 2017 on RINs. Returning to such a financial environment would be unsustainable and certainly threaten jobs in the region.

The EPA must act now to prevent anti-consumer manipulative practices and advance RIN market reforms in the final 2019 RVO, rather than wait to pursues measures addressing RIN market integrity in the future.

5) Paulsboro Independent Oil Workers Union – *Rudolph Rafferty, President, Independent Oil Workers, representing 300 employees at New Jersey's Paulsboro Refining Company and an additional 200 from neighboring facilities.*

The facts to date show that domestic biofuel use will remain robust, even when the standard is waived for parts of the industry. These facts prove EPA can set a reasonable volumetric requirement that is below the blendwall without adversely impacting domestic ethanol or other biofuel consumption, much of which is economic without government support.

For every refinery employee, 15-20 indirect jobs are maintained to support our activities. This support comes in the form of goods and services. For example, one of our products serves as a base stock for a neighboring facility, which employs 105 additional union jobs. All told, the Paulsboro Refinery helps to support thousands of people and hundreds of families in Gloucester County, New Jersey. The Paulsboro Refinery has produced fuels for more than 100 years. It has provided stable employment for generations of families who have relied on compensation from refinery employment to provide a good quality of life.

6) Holly-Frontier – in its comments, HollyFrontier requests that EPA take three specific actions: (1) further reduce the renewable volume obligation ("RVO") using the general waiver authority given the inadequate volume of domestically produced renewable fuel available to obligated parties; (2) implement Renewable Identification Number ("RIN") market reforms to increase RIN liquidity and decrease RIN prices; and (3) continue granting small refinery disproportionate economic hardship exemptions as required by the Clean Air Act ("CAA") when circumstances demonstrate a disproportionate economic harm.

7) Valero – Valero's comments stress concerns that EPA has yet again proposed RVOs that are not reasonably attainable & declined to make use of available authorities to reduce harms caused by RFS and volatile RIN market.

8) PBF Energy – PBF Energy says the 2019 proposed conventional biofuel volumes should be lowered to avoid severe economic harm. Recent experience indicates setting unreasonable volume targets does result in such harm, but does NOT appreciably do anything to overcome the challenges of the blendwall and advance the RFS program's objectives. It also says EPA should lower advanced biofuels limits that are overly aggressive to better reflect accurate domestic production. Finally, they say EP should EPA should include RIN trading reforms in the RVO as well as advance other changes to ensure RIN market liquidity and limit compliance costs.

NDAA Signed By President – President Trump signed the 2019 National Defense Authorization Act, including bipartisan language led by Rep. Joe Wilson (R-S.C.) to require the secretary of energy to report on the feasibility of siting, constructing and operating "micro reactors" at critical Defense Department or Energy Department national security

facilities. ClearPath Action advisor and former Nuclear Regulatory Commission Commissioner Jeff Merrifield praised the proposal at a May 22 House Energy and Commerce subcommittee hearing. The NDAA also allows approvals of exports of non-sensitive nuclear technologies to be delegated to officials more junior than the secretary of energy. This would allow for much quicker approvals, which at times have taken more than a year. All exports to China and Russia would still have to be approved by the secretary of energy. There was also language the bill on addressing climate change.

ON THE SCHEDULE THIS WEEK

EPRI Hosts Electrification Conference – The Electric Power Research Institute (EPRI) hosts the inaugural Electrification 2018 International Conference and Exposition on this week in Long Beach CA. Hosted by the and sponsored by more than 20 major utilities and organizations, this annual conference will bring together utility leaders, regulators, researchers, academia, vendors, economic development groups, and energy users from diverse manufacturing, transportation, industrial, and agriculture sectors around the globe. SoCo CEO Tom Fanning is among the many speakers.

Oil/Gas Conference Set for Denver – EnerCom's Oil & Gas Conference takes place this week at the Westin Denver Downtown. The conference offers investment professionals the opportunity to listen to the world's key senior management teams present their growth plans. Our friends at Wolfe Research will host a full day of management meetings with execs on Tuesday August 21st at the Palm Restaurant.

Senate Commerce Hosts Pipeline Safety Field Hearing – The Senate Commerce Committee will convene a field hearing today at 10:00 a.m. in Traverse City, MI looking at pipeline safety in the Great Lakes. Sen Gary Peters is hosting. The hearing will focus on federal oil spill prevention efforts, preparedness and response capability in the event of an oil pipeline break in the Straits of Mackinac. Line 5, the 65-year-old pipeline crossing the Straits of Mackinac, has been the subject of multiple safety concerns, including damage from anchor strikes. Witnesses include PHMSA Administrator Skip Elliott, USGC local Commander Joanna Nunan and NOAA's Scott Lundgren, as well as Enbridge's David Bryson, NWF's Michael Shriberg, API's David Murk, Chris Hennessy of the Michigan Laborers-Employers Cooperation and Education Trust (LECET) and local Brewer Larry Bell.

Senate EPW Looks at Flooding in Ellicott City Field Hearing – The Senate Committee on Environment and Public Works Subcommittee on Transportation and Infrastructure will hold a field hearing hosted by Sen. Cardin to provide oversight repeated flooding events in Ellicott City, MD. The hearing will be reviewing the Federal role in preventing future events.

NEI Hosts Reg Affairs Forum – NEI hosts its 2018 Regulatory Affairs Forum in Bethesda tomorrow through Thursday. Topics will focus on a broader issues including Operations, Engineering, and other leadership in the nuclear industry. Along with Regulatory Affairs personnel, this diverse population will participate in a fast paced exploration of regulatory fundamentals, current and evolving regulatory issues and trends, and how their role; either on the front line, or in station leadership, impacts regulatory performance.

DOE Better Buildings Summit Set – The Advanced Manufacturing Office's Better Plants Program will co-host the Department of Energy's (DOE) 2018 Better Buildings Summit in Cleveland, Ohio from tomorrow through Thursday. The Summit is one of the premier events for energy professionals to engage with one another, explore and share innovative strategies, emerging technologies, financing trends, and much more. This year, the Summit will be held in conjunction with DOE's annual Energy Exchange and will focus on federal facility energy management. Combining the Summit with the Energy Exchange will provide greater access to technical discussions, trainings, panel sessions, and networking opportunities.

Sen Energy Looks at Blockchain. Energy Efficiency, Holds Leg Hearing Wednesday – The Senate Energy Committee holds a hearing tomorrow at 10:00 a.m. to consider the energy efficiency of blockchain and similar technologies and the cybersecurity possibilities of such technologies for energy industry applications. In particular, should we expect electricity prices to increase from rising electricity demand in blockchain applications? In addition, how can we evaluate whether blockchain and similar approaches will soon improve the cybersecurity of computing systems used to supply our energy? Witnesses include Pacific NW Labs Paul Skare, EPRI's Tom Golden, Claire Henly of the Energy Web

Foundation and Princeton's Arvind Narayanan. Then on Wednesday, the Public Lands, Forests, and Mining panel will also hold a legislative hearing on Wednesday looking at 14 bills including helium extraction, wild and scenic rivers, geologic mapping and fire protection. Witnesses will include Sens Bennet and Udall, as well as BLM's Chris McAlear and Forest Service's Glenn Casamassa.

Fanning Headlines Senate Judiciary Look at Cybersecurity Threat – Southern Co. CEO Tom Fanning will testify at the Senate Judiciary Committee tomorrow at 2:30 p.m. to examine cyberthreats to the nation's electrical grid. Fanning is a member of the Electricity Subsector Coordinating Council, the chief coordinating liaison between the power sector and the federal government in preparing for attacks and "national-level incidents" against infrastructure like transmission lines. Other witnesses include Michael Moss, deputy director, Cyber Threat Intelligence Integration Center, Office of the Director of National Intelligence; Bob Kolasky, director, National Risk Management Center, National Protection and Programs Directorate, Department of Homeland Security; and James Lewis, senior vice president, Center for Strategic and International Studies.

Canadian Energy Expert to Look at Quebec Circular Economy – The Circular Economy Working Group holds its August monthly meeting on Wednesday at 6:00 p.m. at the Canadian Embassy Quebec Office. The Group materialized from past Leaders in Energy workshops and activities on the circular economy. At the August meeting, Charles Girard, Lead Energy, Cleantech, and Economic Attache at Quebec Government Office in Washington, will present on circular economy business activities in Quebec.

Forum to Look at Advanced Nuclear – The Global America Business Institute holds an event on advanced nuclear innovation at 12:00 p.m. on Thursday. Speaker Ron Faibish – Senior Director of Business Development, Nuclear Technologies and Materials at General Atomics (GA) – will look at

ABA Teleconference to Discuss Fuel Economy – The American Bar Assn will host a teleconference on fuel economy and greenhouse gas standard reform on Thursday at 12:30 p.m.

EPA to Host IRIS Public Meeting – The EPA is hosting a public meeting on Thursday at 1:00 p.m. to receive feedback on the IRIS Assessment Plan (IAP) for Naphthalene. EPA has extended the public comment period until September 5, 2018.

IN THE FUTURE

Forum to Look at Regional Transportation – The Georgetown Climate Center will host an event next Monday at 1:00 p.m. in Largo to facilitated discussions designed to hear input on the topics of an innovative, low-carbon transportation future, residential and business transportation choices, improving environmental quality and public health benefits while also increasing mobility and modernizing the transportation system and policies/programs that could help achieve this vision.

USEA to Discuss Energy Employment – On Wednesday, August 29th at 10:00 a.m., the US Energy Assn hosts a presentation to summarize the high level results of the 2018 US Energy and Employment Report (USEER) in four key sectors of the American economy--Electric Power Generation and Fuels Production; Transmission, Distribution, and Storage; Energy Efficiency; and the Motor Vehicles Industry. In addition to providing job numbers in emerging technologies, such as renewables, energy storage, and smart grid, the USEER analysis reveals the large number of direct employment that has gone uncounted in traditional energy sectors such as nuclear generation and fossil fuel production. Two special features of the presentation include an analysis of jobs focused on energy efficiency and a breakdown of motor vehicles employment associated with alternative fuels and fuel efficiency. Finally, the presentation will take a forward look at predicted employment growth in 2018 in each energy sector, the hiring difficulty experienced by energy employers, and a demographic overview of energy employment in America. David A. Foster of the Energy Futures Initiative, Speaks.

CSIS Hosts Trade Reps – On Monday September 17th, the CSIS Scholl Chair in International Business is hosting a conversation with six former United States Trade Representatives, who will share wisdom from their own experience

and discuss the current global trading system, its institutions, and the prospects for trade in these challenging times. Speakers include Bill Brock, Carla Hills, Micky Kantor, Charlene Barshefsky, Susan Schwab and Ron Kirk.

Border Energy Forum Set for San Antonio – The North American Development Bank (NADB) will host the XXIII Border Energy Forum in San Antonio on September 26th and 27th at the Hilton San Antonio. This forum brings together local and state officials, private sector developers, academics, large commercial users, and energy experts from the U.S. and Mexico. NADB's unique position as the only U.S.-Mexico binational development bank, has provided the Bank the opportunity to be involved in some of the most relevant clean energy projects developed in the last five years in the region. NADB has financed close to $1.5 billion for 35 projects with total costs of $5.2 billion. Roughly, 2,548 MW of new generation capacity is being installed along the border. The forum will center the dialogue on energy prosperity, innovation, financing, the future of energy markets, and crossborder opportunities along the U.S.-Mexico border, and how to continue building partnerships to advance both countries energy goals that ultimately improve economic development and protect the environment.

SEJ in Flint – The Society of Environmental Journalism holds its annual conference on October 3-6th in Flint. Of course, Bracewell hosts its annual event on Thursday October 4th.

Message

From: Parsons, Nick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7BA9A64331B0449A93CCC46F74D5D1F0-PARSONS, NICK]
Sent: 9/29/2016 2:22:23 PM
To: Sutton, Tia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=25e87403f63143acbb959446512a372c-Sutton, Tia]
Subject: Reg Flex Comment
Attachments: Small Refinery Owners Ad Hoc Coalition.pdf

Flag: Follow up

I think you brought this up a few weeks ago, so here's the comment we received from the Small Refiners Coalition on the Reg Flex analysis.

Nick Parsons • Chemical Engineer • Office of Air and Radiation • U.S. Environmental Protection Agency
734.214.4479 • parsons.nick@epa.gov • 2000 Traverwood Dr, Ann Arbor, MI 48103

"No man is more important than the team." -Bo Schembechler

Message

From: Parsons, Nick [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7BA9A64331B0449A93CCC46F74D5D1F0-PARSONS, NICK]
Sent: 10/27/2016 3:21:08 PM
To: Sutton, Tia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=25e87403f63143acbb959446512a372c-Sutton, Tia]; Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]
Subject: Small Refinery Coalition Comment
Attachments: Small Refinery Owners Ad Hoc Coalition.pdf

Flag: Flag for follow up

Here's the RTC summary comment we received from the Small Refinery Coalition on our RegFlex analysis (section 7.4 of the RTC). Their full comments on SBREFA are on pages 21-28 of the attached if that helps.

Comment:

Small Refinery Owners Ad Hoc Coalition

B. Re-Do The SBREFA Analysis

EPA's SBREFA screening analysis is fraught with errors. It appears that EPA gave little consideration to trying to ascertain whether small entities would be adversely impacted. It fails to consider any of the unique vulnerabilities of small refineries including small entities' disproportionate production of diesel, lower refining margins, differential cost structures, and all of the factors considered to be material to small refinery hardship in DOE's Small Refinery Exemption Study. EPA assumes that a single-asset, small refinery has the same profits, access to capital, borrowing rates, refining margins, and cash flow as the largest vertically integrated refiner. EPA needs to perform a new and complete SBREFA analysis seeking input from stakeholders in the process. [EPA-HQ-OAR-2016-0004-2364-A1 p.34]

In the meantime, EPA should grant hardship relief as intended by Congress by revoking the "addendum" to the DOE Study, by timely ruling on hardship petitions, removing the diesel disparity, and reducing the proposed volumes to restore a competitive and liquid RIN market. [EPA-HQ-OAR-2016-0004-2364-A1 p.35]

Response (Draft):

Deliberative Process / Ex. 5

Nick Parsons • Chemical Engineer • Office of Air and Radiation • U.S. Environmental Protection Agency
734.214.4479 • parsons.nick@epa.gov • 2000 Traverwood Dr, Ann Arbor, MI 48103

"No man is more important than the team." -Bo Schembechler

THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

SEP 19 2016

Mr. Richard Moskowitz
General Counsel
American Fuel & Petrochemical Manufacturers
1667 K Street, NW
Suite 700
Washington, D.C. 20006

Dear Mr. Moskowitz:

I am responding to your October 10, 2013, petition to the U.S. Environmental Protection Agency for reconsideration of the final rulemaking, "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards," 78 FR 49794, August 15, 2013. In your petition you requested reconsideration of the use of a projection of gasoline and diesel consumption and the adjustment of the final renewable-fuel-percentage standards to reflect the grant of a small refinery exemption.

The EPA has carefully reviewed your petition and the information available on the issues you raised. For reasons discussed in the enclosed response, the EPA is denying your petition for reconsideration.

We thank you for your interest in these issues, and the EPA looks forward to working with you and other stakeholders as we continue to implement the Renewable Fuel Standard program.

Should you have any questions, please contact Paul Argyropoulos, my colleague in the Office of Transportation and Air Quality, at (202) 564-1123 or argyropoulos.paul@epa.gov.

Sincerely,

Gina McCarthy

Enclosure

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THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

SEP 19 2016

Mr. Robert L. Greco III
Group Director
Downstream & Industry Operations
American Petroleum Institute
1220 L Street, NW
Washington, D.C. 20005-4070

Dear Mr. Greco:

I am responding to your October 11, 2013, petition to the U.S. Environmental Protection Agency for reconsideration of the final rulemaking, "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards," 78 FR 49794, August 15, 2013. In your petition you requested reconsideration of the use of a projection of gasoline and diesel consumption and the adjustment of the final renewable-fuel-percentage standards to reflect the grant of a small refinery exemption.

The EPA has carefully reviewed your petition and the information available on the issues you raised. For reasons discussed in the enclosed response, the EPA is denying your petition for reconsideration.

We thank you for your interest in these issues, and the EPA looks forward to working with you and other stakeholders as we continue to implement the Renewable Fuel Standard program.

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Sincerely,

Gina McCarthy

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THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

SEP 19 2016

Mr. David W. DeBruin
Partner
Jenner & Block LLP
1099 New York Avenue, NW
Suite 900
Washington, D.C. 20001-4412

Dear Mr. DeBruin:

I am responding to your October 15, 2013, petition to the U.S. Environmental Protection Agency for reconsideration of the final rulemaking, "Regulation of Fuels and Fuel Additives: 2013 Renewable Fuel Standards," 78 FR 49794, August 15, 2013. In your petition you requested reconsideration with respect to eligibility requirements for small refinery exemptions.

The EPA has carefully reviewed your petition and the information available on the issues you raised. For reasons discussed in the enclosed response, the EPA is denying your petition for reconsideration.

We thank you for your interest in these issues, and the EPA looks forward to working with you and other stakeholders as we continue to implement the Renewable Fuel Standard program.

Should you have any questions, please contact Paul Argyropoulos, my colleague in the Office of Transportation and Air Quality, at (202) 564-1123 or argyropoulos.paul@epa.gov.

Sincerely,

Gina McCarthy

Enclosure

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Message

From: Hengst, Benjamin [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C414E2BF04A246BB987D88498EEFFF06-HENGST, BENJAMIN]
Sent: 6/20/2016 1:35:15 AM
To: Sutton, Tia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=25e87403f63143acbb959446512a372c-Sutton, Tia]
Subject: Re: Hearing prep materials

Personal Matters / Ex. 6

The plan sounds good. And I re-reviewed the agenda and I think it looks good, too. Part of the reason I'm not too concerned is that we still have a few days, and given that we have 60 min tomorrow we should be able to get through a good chunk.

I'm always conflicted about these things. On the one hand I think we should get her stuff tonight, but on the other hand I like the idea of going through it with her verbally first. No one right way, I suppose.

From: Sutton, Tia
Sent: Sunday, June 19, 2016 9:03:50 PM
To: Hengst, Benjamin
Subject: Re: Hearing prep materials

Oookay. I think she wanted to get some stuff on Friday, and Janet C would like to actually walk thru some of the stuff on the small refinery doc at the prep tmrw, so will need to have a few materials in the AM. What I might do is just go ahead and print things that won't change (QFRs and the like) for the morning session, and then the other stuff can be in the end-of-day batch.

Personal Matters / Ex. 6

On Jun 19, 2016, at 8:14 PM, Hengst, Benjamin <Hengst.Benjamin@epa.gov> wrote:

> Let's not send anything tonight. I'd rather just do one batch, perhaps tomorrow night. I'm ok covering the material verbally then sending the docs afterward. The reason is I'd like to limit the number of additions we make. Thanks.
>
> On Jun 19, 2016, at 7:15 PM, Sutton, Tia <sutton.tia@epa.gov> wrote:
>
>> Hey Ben,
>> Not sure if you still wanted to chat today, but thought I'd at least send you the items that I was hoping to send to Janet today, and which items we may want to think about only bringing to the mtg tomorrow. I've also included a draft agenda below.
>>
>> I would like to send her the attached items tonight (and would of course give her hard copies tomorrow: gliders, REGS rule, and methodology one-pagers (this is just the talking pts from the 2017 RVO NPRM attached to the previous NPRM

methodology one-pager, so not a new doc, but just want her to have this). And then we wouldn't send tonight, but would also take the E0 one-pager and Janet C's updated small refinery hardship doc (attached) to the 10am prep session. Also, did you see Argy's email on the E0 one pager?

I'm also scheduling a happy hr on July 6 after the last hearing of the summer... :o)

-Tia

6/20/16 Hearing Prep Session Agenda

1. OCIR update
   - Hearing information
   - Member updates
2. Materials – new/updated one-pagers and Q&As
   - RFS
     - E0
     - Small refinery hardship
     - E15
     - CWC
     - REGS rule
     - Octane
   - Other Mobile Source items
     - Glider kits
3. Topics for future prep sessions
   - Tuesday, 6/21 prep session – Mock Hearing

<0. Table of Contents for JM June 2016 RFS Hearing Binder w edits.docx>

<3ci. Glider Kit Update - June 2016.docx>

<2u. REGS Backgrounder.docx>

<2q. Methodology.docx>

<2i. RFS Small Refinery Hardship Summary.docx>

Message

From: LaRue, Steven [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=AE0438503E444D7583EAEC7FB573DF03-LARUE, STEVE]
Sent: 6/17/2016 3:14:06 PM
To: Sutton, Tia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=25e87403f63143acbb959446512a372c-Sutton, Tia]
Subject: RE: Senate Approps
Attachments: FY17 HAC_SAC markup (full committee).docx

Flag: Follow up

Looks as though you have a little ECA sprinkled on top for good measure - also from the Senate:

Fuel Standards – The Committee supports efforts to reduce pollution from marine vessels that may be harmful to human health and coastal environments. While that is the case, the Committee is concerned the mandate for fuel with a sulfur content of 0.1% in the North American Emission Control Area is having a disproportionately negative impact on vessels which have engines that generate less than 32,000 horsepower. This impact may cause some shippers to shift from marine based transport to less efficient, higher emitting modes. In an effort to avoid negative environmental consequences and modal shifting, the Committee directs the Agency to consider exempting vessels with engines that generate less than 32,000 horsepower and operate more than 50 miles from the coastline. Within 180 days of enactment of this act, the Agency should provide the Committee with a report detailing their decision.

Im attaching my draft summary of both bill and report language taken up from both committees on Wed/Thu this week. No indications of in/when they would move to the floor.

I haven't QA'd this or shared with my bosses so if you could not distribute quite yet, that would be great. I know you like to be in on these things asap and am happy to help.

- Steve

-----Original Message-----
From: LaRue, Steven
Sent: Friday, June 17, 2016 8:49 AM
To: Sutton, Tia <sutton.tia@epa.gov>
Subject: RE: Senate Approps

Senate report language:

Small Refinery Relief.—Congress directed the Agency, in consultation with the Department of Energy [DOE], to grant hardship relief to small refineries if compliance with the Renewable Fuel Standard [RFS] would impose a disproportionate economic hardship. In response to several recent petitions, the Agency determined that compliance with the RFS would have a disproportionate economic impact on a small refinery, but denied hardship relief because the small refinery remained profitable notwithstanding the disproportionate economic impact. This is inconsistent with congressional intent because the statute does not contemplate that a small refinery would only be able to obtain an exemption by showing that the RFS program threatens its viability. Congress explicitly authorized the Agency to grant small refinery hardship relief to ensure that small refineries remain both competitive and profitable. In the intensely competitive transportation fuels market, small entities cannot remain competitive and profitable if they face disproportionate structural or economic metrics such as limitations on access to capital, lack of other business lines, disproportionate production of diesel fuel, or other site specific factors identified in DOE's original 2011 Small Refinery Exemption Study prepared for Congress.

When making decisions about small refinery exemptions under the RFS program, the Agency is directed to follow DOE's recommendations which are to be based on the original 2011 Small Refinery Exemption Study prepared for Congress and the conference report to division D of the Consolidated Appropriations Act of 2016. Should the Administrator disagree with a waiver recommendation from the Secretary of Energy, either to approve or deny, the Agency shall provide a report to the Committee on Appropriations and to the Secretary of Energy that explains the Agency position. Such report shall be provided 10 days prior to issuing a decision on a waiver petition.

-----Original Message-----
From: Sutton, Tia
Sent: Thursday, June 16, 2016 2:46 PM
To: LaRue, Steven <LaRue.Steven@epa.gov>
Subject: RE: Senate Approps

Merci

-----Original Message-----
From: LaRue, Steven

Sent: Thursday, June 16, 2016 2:43 PM
To: Sutton, Tia <sutton.tia@epa.gov>
Subject: RE: Senate Approps

I have not seen a copy of the report yet - I don't know anyone from the upper chamber that can help me out either. As soon as something gets posted it's yours.

-----Original Message-----
From: Sutton, Tia
Sent: Thursday, June 16, 2016 1:17 PM
To: LaRue, Steven <LaRue.Steven@epa.gov>
Subject: Senate Approps

Any word on whether or not that small refinery language found its way into the Senate's report? Someone in our A2 office with a Hill mole heard that it may have.

Sent from my iPhone

Message

From: Cohen, Janet [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=D94B854E69CD4F9E80DB946BF9D1C1B2-COHEN, JANET]
Sent: 4/8/2016 3:26:16 PM
To: Stewart, Gwen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3f8c5838943241caadb6005ffaddd7db-gstewart]
CC: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Sutton, Tia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=25e87403f63143acbb959446512a372c-Sutton, Tia]
Subject: meeting request for janet mccabe briefing
Attachments: 4_8_16 rfs small refinery mtg-request-form-grundler.docx; 4_8_16 RFS small refinery mtg-request-form-mccabe.docx

Gwen, here's the follow on request to the one I sent earlier for Chris. I am including that as well here and am copying Tia and Ben as I've heard you may be out today. Please call me if you have any questions today. I'm on leave next week but David Read (734-214-4367) can fill in if you need anything. – j. –

Ps Ben and Tia, I assume you always include yourselves as invited to these briefings so didn't list you specifically. Is that ok? Similarly, is it ok if additional (not listed) team members attend either the Chris or Janet briefings if they are available and interested?

Congress of the United States
Washington, DC 20515

September 13, 2018

The Honorable Andrew Wheeler
Acting Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue Northwest
Washington, DC 20004

Dear Acting Administrator Wheeler:

As representatives of our country's strongest farming communities, we are writing to share our comments regarding the 2019 Renewable Volume Obligations (RVO) proposal under the Renewable Fuel Standards (RFS).

The RFS promotes economic development and energy security for American farmers and families. The proposed rule for the 2019 RVO demonstrates a strong commitment to ethanol production and future growth for cellulosic and advanced biofuels. Although the increase to 2.43 billion gallons in biomass-based biodiesel for 2020 is a positive step, the Environmental Protection Agency acknowledged in its proposed rule (83 Fed. Reg. § 132 July 10, 2018) that biodiesel production can reach 2.8 billion gallons in 2019 and we ask that the final rule incorporate this conclusion. But these commitments and the integrity of the RFS are undermined if the EPA continues to abuse the hardship waiver authority for small refineries.

The EPA approved 48 retroactive RFS waivers for refineries for 2016 and 2017 obligations, effectively eliminating 2.25 billion gallons in the marketplace. The 2019 RVO targets and the success of the RFS will continue to be undermined if the EPA does not account for further waivers. We urge the EPA to put an end to these secret waivers until a process is established to make the name of the refinery, the gallons waived, and other relevant information publicly available. Additionally, accounting for any 2019 waived gallons in the final rule would help ensure biofuel production is not harmed by retroactive refinery exemptions.

Instead of advancing policies that would hurt farmers and prevent market growth of ethanol, we encourage you to also consider reducing regulations, like those that prohibit the year-round sale of E15. This regulatory change would increase consumption of biofuels while also lowering RIN prices, which eases implementation of the RFS and provide consumers with another choice at the pump.

PRINTED ON RECYCLED PAPER

We look forward to working with you to help protect the RFS and urge you to address these issues so this important program continues to drive economic growth and investment in our rural communities.

Sincerely,

Collin C. Peterson
Member of Congress

Kristi Noem
Member of Congress

Dave Loebsack
Member of Congress

Rodney Davis
Member of Congress

Steve King
Member of Congress

Cheri Bustos
Member of Congress

Mark Pocan
Member of Congress

Rod Blum
Member of Congress

Jeff Fortenberry
Member of Congress

Adrian Smith
Member of Congress

Darin LaHood
Member of Congress

Sam Graves
Member of Congress

Roger Marshall, M.D.
Member of Congress

Tim Walz
Member of Congress

Ron Estes
Member of Congress

Don Bacon
Member of Congress

Richard M. Nolan
Member of Congress

Tom Emmer
Member of Congress

Mike Bost
Member of Congress

David Young
Member of Congress

Kevin Yoder
Member of Congress

Marcy Kaptur
Member of Congress

André Carson
Member of Congress

Emanuel Cleaver, II
Member of Congress

STATE OF UTAH

GARY R. HERBERT
GOVERNOR

OFFICE OF THE GOVERNOR
SALT LAKE CITY, UTAH
84114-2220

GREG BELL
LIEUTENANT GOVERNOR

June 20, 2013

Acting Administrator Robert 'Bob' Perciasepe
Environmental Protection Agency
1200 Pennsylvania Avenue NW
Room 3412
Washington, D.C. 20460

Dear Acting Administrator Perciasepe,

With this letter, I express the State of Utah's support for the proposed Tier 3 Vehicle Emissions and Fuel Standards Program (Tier 3 Program).

As Governor of Utah, I have a duty and personal commitment to protect the health and welfare of our residents. Among our more pressing challenges is addressing degraded air quality in our mountain valleys during winter temperature inversions and the summer ozone season. While Utah has made significant progress in improving air quality, and our emissions are steadily declining, certain areas of the state exceed the National Ambient Air Quality Standards (NAAQS) for ozone and PM2.5 on an average of approximately 18 days per year. For the sake of our health, economy, and quality of life, we are committed to do better.

The Utah Department of Environmental Quality (UDEQ) is actively exploring strategies to further improve Utah's air quality and, in recent months, we have enacted several new regulations to reduce emissions. These actions alone, however, likely will not achieve full compliance with the NAAQS. There are limited options available to address our unique topographical and meteorological conditions. Utah's rapid population growth exacerbates the challenge. Based on the information provided in the public notice, the Tier 3 Program appears to be a viable strategy for Utah to attain and maintain the NAAQS and, therefore, Utah supports the proposed Tier 3 Program.

Utah currently has three non-attainment areas for the $PM_{2.5}$ NAAQS. In those areas, Nitrogen Oxides (NO_x) and Volatile Organic Compounds (VOCs) from on-road mobile sources are a primary contributor to the PM2.5 in our air. Preempted by federal statute, Utah is unable to set its own vehicle emission standards. The proposed Tier 3 Program, therefore, presents a promising strategy to reduce NO_x, VOCs, and direct $PM_{2.5}$ from on-road mobile sources. If EPA's projections are accurate, the proposed Tier 3 Program, in conjunction with new mileage efficiency standards for vehicles, will reduce combined NO_x and non-methane organic gas emissions by 80 percent on a fleet average basis and particulate emissions by 70 percent on a per-vehicle basis by the year 2030.

The bulk of pollutants from most of today's vehicles are emitted during cold starts—ignition and the first few miles of driving before conventional catalytic converters warm up enough to be effective—and during fueling. The Tier 3 standards would address these issues by requiring that by 2017 new vehicles have larger catalytic converters to better remove NOx, hydrocarbons, and carbon monoxide;

heat pumps that warm the catalytic converter almost immediately upon ignition to avoid an initial rush of emissions after a cold start; and redesigned fuel tanks, larger carbon canisters, and fuel lines with linings to reduce evaporated fuel leaks. These low-emission vehicle technologies are in use today in California and other countries and have a proven record of results.

The proposed Tier 3 Program addresses the vehicle and its fuel as an integrated system. The proposed Tier 3 gasoline—with a reduced average sulfur content of 10 ppm—would enable the advanced catalytic converters to function more effectively. Beyond that, experience in other countries and in California demonstrates that the lower-sulfur Tier 3 gasoline will yield immediate and significant emissions reductions in our existing vehicle fleet. Therefore, Tier 3 gasoline should be made available at the pump as soon as possible.

I am always cautious of the costs and unintended consequences of regulation and have made it a priority of my administration to eliminate unnecessary regulatory burdens that stifle innovation and economic activity. I am particularly concerned that we not impose undue burdens on consumers struggling under challenging national economic conditions. Nevertheless, while the Tier 3 Program would impose additional costs on consumers, those costs—as estimated by EPA, automobile manufacturers, and even refineries—appear relatively modest and less than the benefits of the Tier 3 Program in terms of reduced health-care costs, improved economic activity, and better quality of life. It also relies on existing, proven technology, so the Program is technically feasible.

In moving forward, EPA must minimize disruption and costs to refineries, costs which likely will be passed on to consumers. Manufacturing Tier 3 gasoline will require significant investments by Utah's petroleum refineries. Utah supports including mitigation provisions in the final rule to help refineries as they transition to Tier 3 gasoline, including providing an averaging, banking, and trading (ABT) program to allow refineries to spread out the cost of these investments among their facilities and hardship and flexibility provisions (e.g., delayed implementation) for small volume refineries such as those in Utah.

We also encourage EPA, in the final rule, to allow minor increases of emissions expected from the production of Tier 3 gasoline to be offset by reductions from fleet-wide mobile source emissions within the nonattainment area, but only after application of Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) technology to any changes to the refining operations. These actions would speed the implementation and take advantage of anticipated air quality benefits. EPA should continue to work with national and local petroleum refiners to address their operational and financial concerns.

Finally, we encourage EPA to work closely with UDEQ in their on-going planning efforts, and share the analytical tools, information and resources necessary for us to better assess and implement the proposed Tier 3 Program and other strategies to attain and maintain the NAAQS. The cause of achieving healthy air quality in an economically sound way demands no less.

I look forward to seeing you at the Western Governors' Association meeting in Utah later this month.

Sincerely,

Gary R. Herbert

Gary R. Herbert
Governor

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 2/27/2014 6:51:31 PM
To: Mylan, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=70798537ae234bdeb55b66364fb8f220-Mylan, Christopher]
CC: Yanca, Catherine [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2b501f083e1f48eba488f985c45cfd0b-Yanca, Catherine]
Subject: Fact sheets...again!
Attachments: Tier 3 Final Vehicle and Fuel Fact Sheet 2-27-14 130pm.docx; Tier 3 Final Rule General Fact Sheet draft 2-27-14 130pm.docx

Ok- here are the fact sheets Deliberative Process / Ex. 5 (I didn't cc you on what I sent the web folks since one file was a redline and I also had to send some other large pdfs for posting...thought you'd prefer not to have the inbox-clogging!)

Cay- these are on the I drive now, older versions are all moved to the Archive folder.

Alliance OF AUTOMOBILE MANUFACTURERS

August 24, 2011

ALLIANCE OF AUTOMOBILE MANUFACTURERS

WHITE PAPER:

WHY EPA TIER 3 MARKET GASOLINE SULFUR LIMITS NEED TO BE SIGNIFICANTLY LOWER, ESPECIALLY FOR MY 2017+ VEHICLES

Introduction

EPA is preparing to propose a new Tier 3 regulation by the end of 2011, one component of which would reduce the average level of sulfur in marketplace gasoline below the existing Tier 2 sulfur standard. The members of the Alliance of Automobile Manufacturers have been engaged with the Agency to express their vital interest in the content of the proposal, and to underscore support for a meaningful reduction in retail market fuel sulfur content nationwide.

EPA's current Tier 2 market gasoline sulfur standard essentially imposes three limits:

- 30 ppm maximum annual average at the refinery gate;
- 80 ppm per gallon maximum/cap at the refinery gate, measured on a batch basis;
- 95 ppm per gallon maximum/cap at the retail fuel pump.

The Tier 2 gasoline sulfur regulation was promulgated in 2000. Starting in 2004, for the six years of the implementation phase in, EPA provided a generous amount of flexibility to oil companies, including: corporate-wide averaging, inter-refinery trading, small refiner exemptions, a slower phase-in for Rocky Mountain region facilities, and a mechanism for hardship waivers, among others. In the aggregate, these have had the effect of "masking" some chronically high sulfur market gasoline supplies in certain areas, which cumulatively may have adversely affected vehicle catalyst performance and durability, and emissions in those markets.

The specific new Tier 3 vehicle emissions limits, and changes in fuel sulfur limits, are still in development. It has been suggested that EPA is considering reducing the individual refinery annual average maximum from 30 ppm to 10 ppm. However, EPA is also considering the implications of retaining the existing per gallon caps (80 ppm refinery gate; 95 ppm retail pump) versus lowering them (*e.g.*, to 20 and 25 ppm, respectively). This White Paper explains why a proposal to keep the 80/95 ppm Tier 2 sulfur caps is adverse to Agency goals for the auto industry.

It is also critical that in designing Tier 3, EPA not unduly delay uniform sulfur limits at the retail pump, by providing another set of flexible compliance measures to refiners as were used in Tier 2. The Alliance does not oppose flexibility for the oil industry *per se*, but the retail gasoline provided should be compatible with Tier 3 vehicle needs in order to meet both fuel

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Mazda • Mercedes-Benz USA • Mitsubishi Motors • Porsche • Toyota • Volkswagen • Volvo
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www.autoalliance.org

economy/GHG requirements [including pending new limits for MY 2017[1]] and pending Tier 3 emissions reductions. The new lower sulfur fuel must be in the marketplace nationally for these vehicles in a timely manner to protect the vehicles, consumers, and the environment.

High sulfur cap limits and/or over-broad implementation flexibility (*e.g.*, in calculating averages across refineries) that allow a wide and unpredictable range of actual sulfur content among different geographic areas and over time, will handicap automakers' ability to introduce new advanced technology systems needed to meet the pending 2017 Fuel Economy/GHG regulations and maximize reductions in vehicle emissions. This approach would fail to treat the vehicle and the fuel as a system, and put an unfair proportion of the total regulatory burden on the auto industry.

Sulfur's Adverse Impact on Current and Future Emission Controls

Gasoline sulfur poisons all types of vehicle emission control devices and reduces their ability to reduce tailpipe emissions. For the three-way catalysts (TWC) used on nearly all existing gasoline-powered light duty vehicles in the U.S., the reduced efficiency caused by sulfur poisoning requires automakers to over-design their vehicles (if/when possible to do so) to meet emission standards. This over-design often involves the increased use of expensive and scarce precious metals in the catalyst, which ultimately makes the vehicle more expensive (and prone to catalyst theft). Furthermore, if the sulfur level is high enough, such design compromises may not be possible.

In all cases, even where over-design enables a vehicle to meet its emission standards, the actual emissions from a vehicle with a sulfur-poisoned catalyst will be higher than they otherwise would be. Since chronic sulfur poisoning may be only partially reversible, the impact on catalyst efficiency is cumulative. Thus, all conventional emissions—including HC, CO, NOx, PM and toxics—will increase as a result, depending on the amount and duration of the sulfur exposure. Sulfur also will affect the vehicle's fuel economy and greenhouse gas emissions adversely, due to the additional energy and operational steps that need to be taken to cope with the sulfur poisoning.

The reversibility of the poisoning, especially over time, in a vehicle chronically exposed to higher sulfur retail gasoline, is an important issue. When the Tier 2 regulation was adopted, it was believed that the sulfur poisoning could not be reversed without physically replacing the catalyst.[2] Over time, technology improvements did enable some reversibility, although at a cost of lower fuel efficiency.[3] Even so, sulfur will always cause at least some permanent impairment of the catalyst, and this impairment causes increased concern as the vehicle accumulates mileage, and as emission standards become more stringent. Under Tier 2, vehicles must continue to meet emission standards through 120,000 miles of driving, and the Tier 3 regulation is anticipated to require compliance with tougher standards of driving.

Reversing the sulfur poisoning requires very high temperature operation from time to time, but TWC subject to leaner exhaust hydrocarbon levels will have lower operational temperatures, making them easier to become and remain poisoned with sulfur. In addition, over time, repeated

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[1] New models are introduced during the previous calendar year, *i.e.*, MY 2017 vehicles are introduced during CY 2016.

[2] As a compliance measure, replacing the catalyst is prohibited.

[3] Removing sulfur from TWC requires increasing the fuel-air ratio and higher temperatures, among other things.

burn-off of the catalyst can damage the catalyst brick substrate, prematurely age it, and reduce catalyst durability.

Highway driving tends to produce higher exhaust temperatures than city driving, and if a vehicle is driven only in the city, its catalyst may not see the higher temperatures needed for sulfur burn-off, and as a result its emissions will be higher. Many, if not most, of these city vehicles will be located in ozone non-attainment areas. EPA should consider that many consumers may drive in a manner not conducive to catalyst burn off, yet are located in areas that need the emission reductions the most.

New technologies are under consideration as tools to help automakers meet stringent new fuel economy standards, and the significantly more fuel efficient, lean burn gasoline engine (compared to conventional engines) is one of these. This technology requires the use of different emission control devices, such as the Lean NOx Trap, similar to those used in diesel engines, to meet NOx emission standards. Lean NOx traps also have lower operational temperatures and will be more easily poisoned. These devices quickly and permanently lose their ability to function as the fuel sulfur level rises above 10 ppm.[4] Some of the individual automakers have already provided EPA with proprietary company-specific data on this point.

Recent Support for Reducing Sulfur: SAE 2011-01-0300, D. Ball, et al., *Effects of Fuel Sulfur on FTP NOx Emissions from a PZEV 4 Cylinder Applications*

Test data on sulfur's impact on very low emitting vehicles (*e.g.*, SULEV, PZEV, and Tier 2-Bin 2) remain scarce, especially at ultra-low sulfur levels and over a 150,000 mile compliance lifetime. This recent SAE study provides some insight. The authors measured the impact of test fuels containing 3 ppm and 33 ppm sulfur on NOx emissions from a 2009 MY PZEV Malibu. One important aspect of the evaluation was measuring the ability of different driving cycles to reverse the catalyst poisoning, and the potential for "NOx creep", *i.e.*, the incremental permanent reduction in catalyst efficiency as a result of repeated sulfur exposure. As the study notes, catalyst efficiencies for PZEVs need to exceed 99.4% for HC and 99.3% for NOx through 150,000 miles, and small changes in catalyst efficiency can have a large impact on tailpipe emissions.

The study found that sulfur levels of 33 ppm will affect "test to test" NOx stability during FTP testing, and that catalyst temperatures of 600°F, common in under-floor catalysts, can allow sulfur poisoning that affects NOx reduction efficiency and consistency of results. Using the US06 test cycle (high engine flow, high load) between FTP cycles, however, can increase catalyst temperature enough to help reverse the poisoning and improve "test to test" stability. According to the study, while the US06 can help mitigate sulfur poisoning, using a 3 ppm sulfur gasoline would eliminate the need to use such a cycle -- also, a 3 ppm fuel would reduce NOx emissions by 40% compared to the 33 ppm fuel, and/or allow lower levels of precious metals in the catalyst.

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[4] In 2000, the Association for Emissions Control by Catalyst (AECC) found: "The promising NOx adsorber technology that diesel and lean burn engines need requires sulphur levels significantly below 10 ppm. This will avoid compromising the lower fuel consumption and CO2 emissions by requiring frequent regeneration to remove the sulphur that is clogging the NOx adsorption capacity. See *Response to European Commission Consultation on the Need to Reduce the Sulphur Content of Petrol and Diesel Fuels below 50 parts per million*, July 2000, available at http://www.aecc.eu/en/Publications/Archive.html.

Lessons from Tier 2 US Gasoline Sulfur Regulation

Automakers found Tier 2 vehicle emission regulations much more stringent than expected, which in turn strengthened their call for the lowest possible gasoline sulfur levels. The Agency's choice of nominal 80 ppm/95 ppm sulfur caps for Tier 2 was already a much bigger compromise than should have occurred.

In addition, EPA's Tier 2 implementation scheme allowed sulfur levels to be significantly higher in the marketplace than the nominal legal limits for a considerable period after the rule's adoption. Besides giving most refiners two years after the 2004 effective date to phase in to the standard, the Agency gave an additional two years to small refiners and those in the Rocky Mountain region, and refiners could apply for hardship waivers that would allow an additional two years to comply. Thus the rule actually allowed six years to fully phase in the new fuel quality, with no provision to prevent local high sulfur areas during this period.

Moreover, EPA's 30 ppm limit was reached by averaging all batches *over a full year*, compared to California's low sulfur regulation (RFG Phase 2, implemented in 1996) which required averaging over a six month period. EPA imposed its 80 ppm per gallon cap at the *refinery gate,* and allowed retail gasoline to reach a 95 ppm cap at retail (and even this limit did not become absolute until 2011). California's Phase 2 regulation imposed its 80 ppm per gallon cap *at retail.* In its North American Fuel Survey (NAFS) the Alliance of Automobile Manufacturers was still finding U.S. retail gasoline with sulfur as high as 148 ppm in the summer of 2010.[5] While automakers would strongly welcome a significant lowering of average sulfur levels, they are greatly concerned about the possibility of high sulfur "hot spots" persisting at various retail points around the country if high caps are still allowed.

It is unclear when EPA will next revisit the issue of sulfur market fuel specifications, so the Agency should propose limits that will enable nationwide introduction of all emerging vehicle technologies for the foreseeable future.

Implications of Retaining the Tier 2 Sulfur Caps

Even with a much-needed, much lower annual sulfur average per refinery in place by 2016 (for MY 2017 vehicles) (and assuming no Tier-2 type averaging flexibility), retaining the *current* Tier 2 sulfur caps (80/95 ppm) in Tier 3 would be extremely problematic for autos, given the challenges of the 2017-2025 Fuel Economy/GHG rule and pending Tier 3 vehicle emission standards. Even if EPA reduces the refinery annual average sulfur limit considerably below the current 30 ppm, the prospect of continuing to allow up to 95 ppm sulfur *retail* gasoline in the marketplace means consumers in some locations will be buying relatively high sulfur fuel for their vehicles, some of them on a regular basis.

In addition, automakers are very concerned about repeated exposure of such vehicles to high sulfur levels, because the accumulation of sulfur on their catalysts over time and miles will put them at an unfair (and unpredictable) disadvantage for in-use compliance testing. Under Tier 2

[5] The Alliance of Automobile Manufacturers North American Fuel Survey (NAFS) conducted in the summer of 2010 found regular gasoline in Kansas City containing 148 ppm sulfur. However, the first NAFS survey for 2011 (conducted in January 2011) showed all gasoline samples apparently compliant with the 95ppm sulfur retail standard.

standards, vehicles must comply with emission standards for 120,000 miles of driving (and many vehicles are in Sec. 177 states requiring *California* emissions limit compliance for 150,000 miles, but which are exposed to *federal* fuels rather than the benefit of California fuels). Under the Tier 3 rule, automakers anticipate that all vehicles will be required to comply with tighter emissions standards. Many will need to comply with the longer California useful life criterion. In addition, long-term usage patterns (e.g., predominantly urban driving versus high-load highway driving) will differently affect catalyst performance and durability. Adding the element of unpredictable levels of market fuel sulfur (geographically and over time) could affect future in-use testing results, especially if no sulfur preconditioning steps are applied.

Vehicles have reduced catalyst efficiencies during and after chronic higher sulfur exposures, and this can cause significantly higher emissions. Poor or incomplete reversibility will cause ongoing higher emissions wherever the vehicle travels, including ozone non-attainment areas. Furthermore, future gasoline is likely to contain more ethanol, which contributes to higher NOx emissions, so higher sulfur gasoline will exacerbate the likelihood of an emissions increase. These combined effects would set back state efforts to meet stringent ozone ambient air quality standards. Importantly for the states and the general public, even occasional vehicle exposures to sulfur levels as high as 95 ppm will cause significantly higher HC, NOx, PM and toxic emissions than the design capability of vehicles. As a result, EPA will risk failing to prevent air quality backsliding, which Congress required EPA to study specifically out of concern about ethanol's impact on emissions.[6]

Allowing retail sulfur levels as high as 95 ppm also will inhibit the introduction of new fuel efficient, lean burn gasoline engine technology, as already publicly noted by some automakers. These engines are capable of providing significantly improved fuel economy and greenhouse gas benefits compared to conventional engines, but they require emission control devices that are quickly poisoned as the fuel sulfur level rises above 10 ppm.

Countries and regions that have capped gasoline sulfur at 10 ppm (for example, Europe and Japan) have been able to enjoy the benefits of lean burn technology over the past decade. If EPA retains the 95 ppm retail cap, U.S. consumers will continue to be deprived of this fuel efficient option, and they will continue to wonder why other countries seem to have more advanced and a greater diversity of fuel efficient technologies than the United States.

Maintaining a 95 ppm retail sulfur cap would be damaging to the U.S. reputation as a leader in air pollution control because so many other countries and some cities have already achieved ultra-low sulfur levels in their gasoline.[7] In Canada, for example, according to the Alliance's North American Fuel Survey, the highest sulfur level recorded last summer (2010) was 32 ppm for regular grade and 20 ppm for premium, and since 2007, the levels there have been consistently below 40 ppm. In Mexico all premium grade samples in the Alliance surveys have had less than 52 ppm sulfur since 2007. In half of the cities sampled, regular grade samples have had less than 80 ppm sulfur since 2009.

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6. *See* 42 USC 7545(q). Though due in draft form by 2009, this analysis has not yet been published. EPA expects to work on this analysis in parallel with drafting the Tier 3 Proposed Rule.

[7]According to Hart's International Fuel Quality Center, as of May 2010, Japan, South Korea, Iceland, Greenland, and the countries of the European Union require less than 10 ppm sulfur gasoline. The U. S. ranks 44th in a ranking of the top 100 countries by gasoline sulfur standard stringency. *See* PR Newswire, "IFQC Ranks Top 100 Countries by Gasoline Sulfur Standards: Europeans' Major Progress Bumps U.S. to 44th Place," May 5, 2011, and IFQC, http://www.ifqc.org/NM_Top 5.aspx.

Automakers that engineer vehicles for the U. S. have waited a long time for lower fuel sulfur levels that harmonize with foreign standards, enable lean-burn technology, and make full use of advanced technologies. Maintaining existing U.S. high sulfur caps would inhibit needed technology and international harmonization of fuels and vehicle design, and waste scarce economic and commodity resources on over-sophisticated emission control systems.

Flaws in the Purported Reasons for Retaining the Tier 2 Sulfur Caps

The main argument against more stringent sulfur limits boils down to concern that a few, perhaps older or small refineries that supply U. S. retail gasoline might be unable to consistently produce a lower sulfur product.

This argument seems weak, given how long refiners have known about sulfur's effects and have been producing lower sulfur gasoline. As noted, California began requiring a low sulfur gasoline in 1996. In 1998 EPA imposed Federal RFG Phase 2 requirements—affecting about one third of the country's gasoline market. To comply with federal RFG2's required NOx reductions, refiners needed to substantially reduce sulfur. As a result, by 2000, refiners were well on their way to producing Tier 2 compliant gasoline, as shown in EPA's Fuel Trends Report 2008, which studied retail sulfur levels from 1995 to 2005. By 2005, several years after Federal RG2 implementation and one year after Tier 2 implementation, the Federal RFG summer retail average had already dropped to about 70 ppm from about 200 ppm in 1998. The annual average for all gasoline in 2005 was 92 ppm. It is very difficult to conclude that a lower sulfur retail limit would not be feasible in the U.S. A few stressed refineries should not drive the universally applicable prospective federal limits.

A second argument is that contamination during distribution through the finished product pipeline infrastructure contributes to retail gasoline sulfur levels and that this contamination cannot be further controlled. The Alliance would appreciate the opportunity to see what current data EPA or other stakeholders have, including any comparisons of past versus current samples showing the relative magnitude of sulfur contamination levels, or that support the need for a 95 ppm sulfur retail cap.

The same contamination concerns were voiced when EPA was developing the ultra-low sulfur diesel (ULSD) fuel standard in 2002. Yet the country has successfully converted to retail 15 ppm sulfur diesel fuel nationwide, using the same pipelines to distribute the fuel as used for gasoline. Further, since the 2002 ULSD rule, EPA has greatly reduced the sulfur levels in other petroleum products that move through the pipelines. Non-highway diesel fuel and fuel used for locomotive and marine applications will have to meet the same 15 ppm sulfur limit by 2014, before Tier 3 is implemented. Thus, it should be much easier to move ultra-low sulfur gasoline in pipelines in 2016-17 than it was in 2006, when ULSD began its phase-in. In addition, since most gasoline today contains 10% ethanol, the sulfur levels are further reduced (diluted) during blending after the fuel leaves the pipeline, which also provides refiners with some flexibility.

EPA Opportunity to Promote International Harmonization Regarding Sulfur Levels

The 2000 edition of global automakers' Worldwide Fuel Charter stressed the need for sulfur-free gasoline. Shortly afterward, Europe and Japan started moving toward a 10 ppm maximum sulfur standard. Both of these markets have now had ultra-low sulfur gasoline for several years. Other countries, including Canada and Mexico, also are moving to well below 80 ppm[8] consistent with

[8] Based on retail sulfur levels measured through the Alliance North American Fuel Survey, 2007-2011.

the goals of the UNEP-managed Partnership for Clean Fuels and Vehicles, in which both EPA and the oil industry participate.[9] In 2005, the PCFV conservatively recommended a 50 ppm sulfur limit for all countries, even those in Africa, while recognizing the benefits of further reduction, but keeping in mind the challenge presented for developing countries.

Conclusion

EPA should use its opportunity in Tier 3 to provide a strategy toward achieving a 5-10 ppm cap on sulfur in U.S. retail gasoline. Any issues relating to particular refinery capability, pipeline, or other sulfur contributions should be addressed individually, as part of the larger strategy to achieve this goal, but should not be used to change the goal itself. Allowing sulfur caps as high as 80 ppm at the refinery gate and 95 ppm at retail pumps to continue indefinitely in the US marketplace is unwarranted, would handicap maximizing vehicle emission reductions and achieving fuel economy and GHG standards, and would inhibit development and use of cleaner, more efficient combustion technologies.

The Alliance looks forward to additional opportunities to work with EPA and other stakeholders on the gasoline sulfur reduction challenge.

***

For additional information, please contact:

Valerie Ughetta, Director, Automotive Fuels
Alliance of Automobile Manufacturers
vughetta@autoalliance.org

[9] *See* Partnership for Clean Fuels and Vehicles, http://www.unep.org/transport/pcfv/partners/partners.asp); and Low Sulphur Campaign, http://www.unep.org/transport/pcfv/corecampaigns/campaigns.asp#sulphur). In 2005, the Partnership recommended that countries aim "To reduce sulphur in vehicle fuels to 50 ppm or below worldwide, concurrent with clean vehicles and clean vehicle technologies, with roadmaps and timelines developed regionally and nationally". *See* Summary of the Fourth Meeting of the Global Partnership for Clean Fuels and Vehicles, UNEP Headquarters, Nairobi, Kenya, 14-15 December, 2005, available at http://www.unep.org/transport/pcfv/PDF/4GPM-report-final.pdf.

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 5/7/2018 6:47:22 PM
To: Dallas Burkholder (burkholder.dallas@epa.gov) [burkholder.dallas@epa.gov]
Subject: FW: Preamble for OP/OMB
Attachments: EO12866_RFS 2019 Annual Rule 2060-AT93 NPRM FRN_20190427.docx; 2019 RFS NPRM RIN transparency language_OGC edits.docx

Hey Dallas,
Since this version had to go thru Mandy for review & moving on to OP, this should be what she was looking at. I'm also attaching the transparency language with OGC's edits, just to make sure you have them and they've been incorporated.

Thanks!
-Tia

From: Sutton, Tia
Sent: Wednesday, April 25, 2018 2:38 PM
To: Burkholder, Dallas <burkholder.dallas@epa.gov>
Cc: Hengst, Benjamin <Hengst.Benjamin@epa.gov>
Subject: RE: Preamble for OP/OMB

Revised version attached, and on its way to OP. Did some additional formatting (which I did not do in RLSO, so we can just do a doc compare if you want to know what changed) and I updated the header & filename to Friday's date.

Deliberative Process / Ex. 5

From: Burkholder, Dallas
Sent: Wednesday, April 25, 2018 1:30 PM
To: Sutton, Tia <sutton.tia@epa.gov>
Cc: Hengst, Benjamin <Hengst.Benjamin@epa.gov>
Subject: Preamble for OP/OMB

Attached is a compiled version of the preamble for OP/OMB. I'm around for another hour if there are any last minute questions.

Dallas Burkholder
Office of Transportation & Air Quality
US Environmental Protection Agency
(734)214-4766
Burkholder.Dallas@epa.gov

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 5/17/2018 6:17:23 PM
To: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]
Subject: RE: List

No worries. Call whenever- Personal Phone / Ex. 6 I have a 3pm w/ Robert & Nick, but it's fine if I'm a little late to that.

From: Hengst, Benjamin
Sent: Thursday, May 17, 2018 2:16 PM
To: Sutton, Tia <sutton.tia@epa.gov>
Subject: Re: List

Ok. May be running late.

On May 17, 2018, at 2:12 PM, Sutton, Tia <sutton.tia@epa.gov> wrote:

My list:

- Small refinery hardship stuff
  - Decision docs – current issue and review moving forward
  - FOIAs/CRS, Congressional letters
- RFS hearing – IO staff participation; OGC's travel
- Canned statements for LD, gliders, grand bargain/RVP
- Deputy Dog meeting
- Other stuff?

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 12/7/2018 6:32:26 PM
To: Burch, Julia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=27b0cd43b0404bab89aef0c8d08c165f-Burch, Julia]
Subject: RE: Burch, Julia shared "RFS-gas prices and GHG - EPA responses to Nov GAO Qs" with you.

SH*T!

No, I was gonna do it yesterday and the stupid party got in the way. I really should've worked from home yesterday and skipped the party!! On a call, but will tackle right after.

From: Burch, Julia
Sent: Friday, December 07, 2018 12:59 PM
To: Sutton, Tia <sutton.tia@epa.gov>
Subject: FW: Burch, Julia shared "RFS-gas prices and GHG - EPA responses to Nov GAO Qs" with you.

Did you send me this language yet? Sorry if I missed it. I've been tracking down the other responses all morning.

Thanks!

From: Cohen, Janet
Sent: Monday, December 3, 2018 1:47 PM
To: Burch, Julia <Burch.Julia@epa.gov>; Nelson, Karen <nelson.karen@epa.gov>
Subject: RE: Burch, Julia shared "RFS-gas prices and GHG - EPA responses to Nov GAO Qs" with you.

Julia, I think Tia has some language that was used recently that would work here. Advantage of finding and using it is that it has already been reviewed and ok'd. It was along these lines:

12) What factors contributed to EPA's decision to issue small refiners waivers for complying with the RFS?

Deliberative Process / Ex. 5

From: Burch, Julia
Sent: Monday, December 03, 2018 1:25 PM
To: Nelson, Karen <nelson.karen@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>
Subject: Burch, Julia shared "RFS-gas prices and GHG - EPA responses to Nov GAO Qs" with you.

Can one of you take a look at question #12? If you can't provide a response please let me know who can so I can coordinate with them.

Thanks!

Julia

This link only works for the direct recipients of this message.

RFS-gas prices and GHG - EPA responses to Nov GAO Qs

Open

Microsoft OneDrive

Microsoft respects your privacy. To learn more, please read our Privacy Statement.
Microsoft Corporation, One Microsoft Way, Redmond, WA 98052

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 6/25/2018 9:25:13 PM
To: Scoville, Pat [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3a78d930883b4664ad29d6afa5cec4be-PScovill]
CC: Dallas Burkholder (burkholder.dallas@epa.gov) [burkholder.dallas@epa.gov]
Subject: 2019 RVO rule files
Attachments: Action Memo - RFS 2019 RVO NPRM v2.docx; RFS 2019 Annual Rule 2060-AT93 NPRM_SAN 6442.docx

Hey Pat,
Attached is the revised action memo (with a clearance date of 6/25) and the signature file. If you already printed the action memo before, the only thing you need to reprint is the 3rd page.

Thanks!
-Tia

Message

From: Hengst, Benjamin [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C414E2BF04A246BB987D88498EEFFF06-HENGST, BENJAMIN]
Sent: 12/1/2017 2:03:16 PM
To: OTAQ Materials [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d024a3342082470eada2969a12393750-OTAQ Materi]
Subject: FW: updated small refinery briefing
Attachments: 12_1_17 final Wehrum small refinery discussion.pptx

Slightly updated materials for use in today's 11:30 on small refineries.

Thanks
Ben

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 5/8/2018 1:38:10 PM
To: Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]
Subject: Backgrounder for 5-8-18.docx
Attachments: Backgrounder for 5-8-18.docx

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 6/5/2018 8:56:20 PM
To: Moulis, Charles [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d9ba8bd68b3c4fb28b767e15aef54d61-Moulis, Charles]
Subject: FW: OAR Preview Overdue Report for Week Ending May 26, 2018
Attachments: OAR Preview Overdue Report for Week Ending May 26, 2018.pdf

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From: Hamilton, Sabrina
Sent: Tuesday, May 22, 2018 5:59 PM
To: Price, Doris <Price.Doris@epa.gov>; Strine, Lora <Strine.Lora@epa.gov>; Terry, Sara <Terry.Sara@epa.gov>; Marbury, Candice <Marbury.Candice@epa.gov>; Meekins, Tanya <Meekins.Tanya@epa.gov>
Cc: Wehrum, Bill <Wehrum.Bill@epa.gov>; Lewis, Josh <Lewis.Josh@epa.gov>; Wright, Rhonda <Wright.Rhonda@epa.gov>; Lubetsky, Jonathan <Lubetsky.Jonathan@epa.gov>; Carroll, Maria <carroll.maria@epa.gov>; Krieger, Jackie <Krieger.Jackie@epa.gov>; Sutton, Tia <sutton.tia@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Noonan, Jenny <Noonan.Jenny@epa.gov>; Clarke, Deirdre <clarke.deirdre@epa.gov>; Krieger, Jackie <Krieger.Jackie@epa.gov>
Subject: OAR Preview Overdue Report for Week Ending May 26, 2018

OAR Correspondence Coordinators:

Attached is latest report for correspondence due from your program office. Please review and complete as many assignments that was due within the last month or two. If you have any questions or need assistance, please contact me. Thanks

Sabrina

Sabrina Hamilton
Air and Radiation Liaison Specialist
and FOIA Coordinator
Office of Air and Radiation - Correspondence Unit
U.S. Environmental Protection Agency (EPA)
1200 Pennsylvania Avenue, N.W. (6101-A)
Washington, D.C. 20460
Tel: (202) 564-1083
Fax: (202) 501-0600

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 8/10/2018 2:45:07 PM
To: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]
Subject: 18-000-9263.pdf
Attachments: 18-000-9263.pdf

See attached!

Congress of the United States
Washington, DC 20515

July 16, 2018

The Honorable Andrew Wheeler
Acting Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20004

Dear Administrator Wheeler:

You hold a very important role as the acting Administrator of the U.S. Environmental Protection Agency (EPA). It is our expectation you will reinforce the Renewable Fuel Standard (RFS) and bolster our nation's energy security. We're encouraged by your statement at your confirmation hearing last year where you said, "The RFS is the law of the land. I fully support the program." Iowa farmers deserve nothing less.

Renewable fuels are critical to achieving energy independence in the United States and play an important role in Iowa's economy. We remain concerned about the demand destruction of 2.25 billion gallons due to the unprecedented number of small refinery "hardship" waivers granted in 2016 and 2017. The recently released 2019 proposed rule indicates there will be no accounting moving forward of gallons that might be waived under the small refinery waivers in order to maintain the statutory Renewable Volume Obligation. A reduction in demand for renewable fuels pushes commodity prices even lower and farmers are already facing low commodity prices. We strongly urge you to reconsider the proposed rule and work to ensure that the final rule is structured to ensure that any waivers granted do not reduce the overall Renewable Volume Obligation.

President Trump directed the EPA to allow for the sale of E-15 year round but unfortunately this hasn't come to fruition. This is particularly frustrating given the damaging impact that previously granted waivers have already had on RIN prices and renewable fuel demand. As Iowa corn farmers are anxiously awaiting their 2018 crop, a Reid Vapor Pressure (RVP) waiver would help grow demand and improve the markets. Since its creation, the RFS has helped us reduce our dependency on foreign oil, promoted cleaner air, created good-paying jobs, given consumers cheaper fuel, and spurred economic growth in our rural communities.

Across Iowa, cooperatives and renewable fuel plants dot the landscape. We invite you to visit Iowa and look forward to working with you.

Sincerely,

David Young
Member of Congress

Dave Loebsack
Member of Congress

Charles E. Grassley
United States Senator

Joni K. Ernst
United States Senator

PRINTED ON RECYCLED PAPER

Steve King
Member of Congress

Rod Blum
Member of Congress

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 4/3/2018 10:00:08 PM
To: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]
Subject: Small refineries FOIA Politico v3.docx
Attachments: Small refineries FOIA Politico v3.docx

Importance: High

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 8/1/2018 9:00:10 PM
To: Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]; Stahle, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b25318c6014d4fb985288e15143c8596-SSTAHLE]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]; Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Nelson, Karen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3492adee9fab4a02956fcf63f0de048b-Nelson, Kar]; McKenna, Chris [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=451b675850124bf4a9db1d577ee3b9af-McKenna, Ch]; Machiele, Paul [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b71a67c326714ebbaa72eda552e55282-Machiele, Paul]; Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]; 'Lauren Michaels (Michaels.Lauren@epa.gov)' [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a44e1a5c23404801bd12621455cde517-Reid, Laure]; Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]
Subject: RE: Revised Grassley letter - update
Attachments: SenRounds_SRE.PDF; 2018.08.01 - Small Refinery Exemption Sen Grassley Updated Response.pdf

Me again. Just got word from OAR that the attached letters also went out (I will save to SharePoint shortly):

1. For those who didn't watch the hearing today, Sen Rounds brought up the "unsatisfying" letter and asked that he get an updated response too, so Bill went ahead and fixed up a version of the letter to send him this afternoon.
2. The revised response was also sent to the other 11 Senators that got the original letter. Since OAR sent this out without telling us it was happening, I didn't get a chance to have them also add in edits to the letters to Thune, Blunt, Fischer, and Ernst to also refer to the WH letter. I'm 99.9% sure OCIR will handle things for us and we can close that WH letter out, but I guess we'll see.

As soon as we get the actual Word version, I'll also put that on SP and will do a doc compare so we can see what changed from the version Ben sent last night.

From: Sutton, Tia
Sent: Wednesday, August 01, 2018 4:01 PM
To: Orlin, David <Orlin.David@epa.gov>; Stahle, Susan <Stahle.Susan@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Nelson, Karen <nelson.karen@epa.gov>; McKenna, Chris <mckenna.chris@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>; Lauren Michaels (Michaels.Lauren@epa.gov) <Michaels.Lauren@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>
Subject: Revised Grassley letter

On the small refinery SharePoint site (link below), and also attached for those of us having SP issues – here's the revised Grassley letter that went out this afternoon:

https://usepa.sharepoint.com/sites/oar_Work/Small_Refinery_Hardships/Shared%20Documents/External%20Communications/Congresional%20Letters/Grassley%20rewrite/2018.08.01%20-%20Small%20Refinery%20Exemption%20Sen%20Grassley%20Updated%20Response.pdf

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 6/20/2018 10:23:17 PM
To: Sutton, Tia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=25e87403f63143acbb959446512a372c-Sutton, Tia]
Subject: Agenda items for BW weekly
Attachments: Agenda for Fuels Weekly with Chris 06-20-18.docx

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 4/3/2018 9:22:59 PM
To: OTAQ Materials [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d024a3342082470eada2969a12393750-OTAQ Materi]
CC: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Burch, Julia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=27b0cd43b0404bab89aef0c8d08c165f-Burch, Julia]
Subject: Agenda for 10am Weekly Fuels with Chris
Attachments: Agenda for Fuels Weekly with Chris 4-4-18.docx

Please print for Wednesday's 10am Fuels Weekly with Chris.

Thank you!
-Tia

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 3/22/2018 2:45:32 PM
To: Parsons, Nick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ba9a64331b0449a93ccc46f74d5d1f0-Parsons, Nick]; Simon, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f1b1e3c1d483451b992ade1cac288f49-Simon, Joseph]
CC: Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]
Subject: RE: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943

Ha- we're late on ALL responses right now! But duly noted, will move this up in the queue.

From: Parsons, Nick
Sent: Thursday, March 22, 2018 10:44 AM
To: Sutton, Tia <sutton.tia@epa.gov>; Simon, Joseph <Simon.Joseph@epa.gov>
Cc: Burkholder, Dallas <burkholder.dallas@epa.gov>
Subject: RE: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943

We're late on the response to the control from Perkins Coie, and I'd like to **Deliberative Process / Ex. 5**
Deliberative Process / Ex. 5

- Nick

From: Sutton, Tia
Sent: Thursday, March 22, 2018 10:43 AM
To: Simon, Joseph <Simon.Joseph@epa.gov>; Parsons, Nick <Parsons.Nick@epa.gov>
Cc: Burkholder, Dallas <burkholder.dallas@epa.gov>
Subject: RE: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943

They hadn't gone thru the full review chain last time I looked (sorry…in my mind I actually sent you a note saying that). But thanks for the reminder – will add this to the list to check again. Time-sensitive? (This is going at the end of a very long list, but will move that up if need be.)

From: Simon, Joseph
Sent: Thursday, March 22, 2018 10:35 AM
To: Parsons, Nick <Parsons.Nick@epa.gov>; Sutton, Tia <sutton.tia@epa.gov>
Cc: Burkholder, Dallas <burkholder.dallas@epa.gov>
Subject: RE: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943

I have nothing.

From: Parsons, Nick
Sent: Thursday, March 22, 2018 10:29 AM
To: Sutton, Tia <sutton.tia@epa.gov>; Simon, Joseph <Simon.Joseph@epa.gov>
Cc: Burkholder, Dallas <burkholder.dallas@epa.gov>
Subject: RE: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943

Did we ever track down the responses to the RFA and API controls?

- Nick

From: Parsons, Nick
Sent: Wednesday, March 07, 2018 2:24 PM
To: Sutton, Tia <sutton.tia@epa.gov>; Simon, Joseph <Simon.Joseph@epa.gov>
Cc: Burkholder, Dallas <burkholder.dallas@epa.gov>
Subject: RE: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943

Just the responses to the controls I noted below from API and RFA. Deliberative Process / Ex. 5 Deliberative Process / Ex. 5 Thanks!

- Nick

From: Sutton, Tia
Sent: Wednesday, March 07, 2018 1:51 PM
To: Parsons, Nick <Parsons.Nick@epa.gov>; Simon, Joseph <Simon.Joseph@epa.gov>
Cc: Burkholder, Dallas <burkholder.dallas@epa.gov>
Subject: RE: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943

I will check now. And just to be clear, you're only looking for responses to the letters Nick noted below, NOT the 3 control numbers in the subject line?

Or wait, is one of these the one that I emailed about a while ago (to suggest how/who to respond)? If so, I'm not sure we've done much more than the email I sent. (Nick- this was the issue I kept bringing up on the Tuesday 10am calls.)

Looking now, will get back to you with whatever I find.

From: Parsons, Nick
Sent: Wednesday, March 07, 2018 1:47 PM
To: Simon, Joseph <Simon.Joseph@epa.gov>
Cc: Burkholder, Dallas <burkholder.dallas@epa.gov>; Sutton, Tia <sutton.tia@epa.gov>
Subject: RE: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943

These are the two letters we're looking for the responses to:

RFA
API

- Nick

From: Simon, Joseph
Sent: Wednesday, March 07, 2018 7:18 AM
To: Parsons, Nick <Parsons.Nick@epa.gov>
Cc: Burkholder, Dallas <burkholder.dallas@epa.gov>
Subject: RE: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943

Sorry Nick,

We looked yesterday and I did not find anything from RFA or API.

Anything else to go on…person's name?
---joe

From: Parsons, Nick
Sent: Tuesday, March 06, 2018 4:25 PM
To: Simon, Joseph <Simon.Joseph@epa.gov>
Subject: RE: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943

Hi Joe,

Any luck on finding those previous controls to RFA and API for me? **Deliberative Process / Ex. 5** **Deliberative Process / Ex. 5** Thanks.

- Nick

From: Burkholder, Dallas
Sent: Tuesday, March 06, 2018 9:56 AM
To: Simon, Joseph <Simon.Joseph@epa.gov>
Cc: Parsons, Nick <Parsons.Nick@epa.gov>
Subject: RE: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943

Joe,
I handed off Control 4709 to Nick Parsons to respond to. He asked **Deliberative Process / Ex. 5** **Deliberative Process / Ex. 5** I'll come down and talk to you about 4382 – we should be able to get something out today.

Dallas

From: Simon, Joseph
Sent: Tuesday, March 06, 2018 7:18 AM
To: Burkholder, Dallas <burkholder.dallas@epa.gov>
Subject: Controls AX-18-000-4382, AX-18-000-4709 and AX-18-000-4943
Importance: High

Hello Dallas,

Is there anything I can help in getting these out?

Control AX-18-000-4382 was DUE last week 3/1.

Please let me know what I can do.
Thanks

Joe Simon
Senior Service America, Inc.
Supporting the USEPA through a Cooperative Agreement
under the Senior Environmental (SEE) Program
Assessment and Standards Division
Direct line 734-214-4835
Email: Simon.Joseph@epa.gov

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 3/23/2018 1:51:48 PM
To: Grundler, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d3be58c2cc8545d88cf74f3896d4460f-Grundler, Christopher]
Subject: RE: Certified index

Merci.

From: Grundler, Christopher
Sent: Friday, March 23, 2018 9:48 AM
To: Sutton, Tia <sutton.tia@epa.gov>
Subject: RE: Certified index

approved

Christopher Grundler, Director
Office of Transportation and Air Quality
U.S. Environmental Protection Agency
202.564.1682 (Washington, DC)
734.214.4207 (Ann Arbor, MI)

From: Sutton, Tia
Sent: Friday, March 23, 2018 9:47 AM
To: Grundler, Christopher <grundler.christopher@epa.gov>
Subject: Certified index

While I have your eyes, just confirming that you are okay with us autopenning the final certified index letter for you? Tanya is powering through small refinery hardship letters now, so thought I could just add this one to her queue.

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 3/5/2018 9:45:07 PM
To: Cohen, Janet [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d94b854e69cd4f9e80db946bf9d1c1b2-Cohen, Janet]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]
Subject: RE: Delegation for Small Refinery Hardship decisions

I aspire to be Acting Director this week. I would re-delegate all of my work to Ben.

From: Cohen, Janet
Sent: Monday, March 05, 2018 4:43 PM
To: Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Sutton, Tia <sutton.tia@epa.gov>
Subject: RE: Delegation for Small Refinery Hardship decisions

I almost sent you a congratulatory email when I got her note ….. but instead I'll just say that the decisions are in good hands now. ☺ - j. -

---

From: Hengst, Benjamin
Sent: Monday, March 05, 2018 4:41 PM
To: Cohen, Janet <cohen.janet@epa.gov>; Sutton, Tia <sutton.tia@epa.gov>
Subject: FW: Delegation for Small Refinery Hardship decisions

How about that to simplify things!? And don't worry, she and I talked =)

From: Cook, Leila
Sent: Monday, March 05, 2018 4:37 PM
To: Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Meekins, Tanya <Meekins.Tanya@epa.gov>
Cc: Bunker, Byron <bunker.byron@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Stewart, Gwen <Stewart.Gwen@epa.gov>
Subject: Delegation for Small Refinery Hardship decisions

As Acting Office Director for OTAQ this week I am re-delegating signature authority for Small Refinery Hardship decisions for this week through 3/9/18 (during the period of Chris Grundler's absence) to Ben Hengst.

Leila Cook

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 4/16/2018 7:57:21 PM
To: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]
Subject: RE: CD Assigned EPW QFRs

Deliberative Process / Ex. 5

From: Hengst, Benjamin
Sent: Monday, April 16, 2018 3:52 PM
To: Sutton, Tia <sutton.tia@epa.gov>
Subject: Fwd: CD Assigned EPW QFRs

Hey Tia. Did I clear these QFR responses before they went down? Just trying to figure a few things out in this ok.

Begin forwarded message:

> **From:** "Le, Madison" <Le.Madison@epa.gov>
> **Date:** April 16, 2018 at 3:33:14 PM EDT
> **To:** "Hengst, Benjamin" <Hengst.Benjamin@epa.gov>
> **Cc:** "Master, Barbora" <Master.Barbora@epa.gov>
> **Subject: FW: CD Assigned EPW QFRs**
>
> FYI only. Here is the email trail for the EPW QFRs with the draft responses to Carper. We sent it you and Tia on Feb 22. We don't know what happened afterwards.
>
> **From:** Le, Madison
> **Sent:** Thursday, February 22, 2018 5:41 PM
> **To:** Sutton, Tia <sutton.tia@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>
> **Cc:** Bunker, Byron <bunker.byron@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>
> **Subject:** CD Assigned EPW QFRs
> **Importance:** High
>
> Hi Tia and Ben,
>
> Attached are the proposed responses for the CD assigned QFRs. These responses have been cleared by Byron.
>
> Note: **Deliberative Process / Ex. 5**
>
> **Deliberative Process / Ex. 5**

Deliberative Process / Ex. 5

Lastly, I'm heading out now and will Personal Matters / Ex. 6 I'm available early tomorrow morning to address any outstanding questions you may have on these QFRs.

Thanks,
Madison

Member	Question #	OAR Office	Subject	Division	Ready for OGC & Mgr Review?
Barrasso	6	OTAQ	MTE	Deliberative Process / Ex. 5	
Barrasso	7	OTAQ	RVOs- Biodiesel		
Carper	19	OAQPS/OTAQ	PM 2.5, glider kits		
Carper	31	OTAQ	RIN market manipulation		
Carper	32	OTAQ	RFS- EV pathways		
Ernst	61	OTAQ	RFS- reform (incl RIN reform)		
Ernst	62	OTAQ	RFS- RINs & E15		
Ernst	63	OTAQ	RFS- RINs		
Fischer	65	OTAQ	RFS- reform (incl RIN reform)		
Fischer	66	OTAQ	RFS - PES bankruptcy		
Fischer	67	OTAQ	RFS - PES bankruptcy		
Fischer	68	OTAQ	RFS- cellulosic/D3 RINs		
Fischer	69	OTAQ	RFS- cellulosic/D3 RINs		
Fischer	70	OTAQ	RFS- 2019 RVO & cellulosic volumes		
Wicker	108	OTAQ	RFS- small refinery hardship exemptions		

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 3/23/2018 1:46:55 PM
To: Grundler, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d3be58c2cc8545d88cf74f3896d4460f-Grundler, Christopher]
Subject: Certified index
Attachments: f Certification of Index 20180314.docx

While I have your eyes, just confirming that you are okay with us autopenning the final certified index letter for you? Tanya is powering through small refinery hardship letters now, so thought I could just add this one to her queue.

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 6/19/2018 2:57:42 PM
To: Burch, Julia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=27b0cd43b0404bab89aef0c8d08c165f-Burch, Julia]; Samulski, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ecf1af23a134d2995fd354d03632d6c-Samulski, Michael]; Revelt, Jean-Marie [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e9a49fd1df8e4ea59fad579c16cc1fe0-Revelt, Jean-Marie]; Stout, Alan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aacc110ba96542089a5c58d4ceb32dbb-Stout, Alan]; Duncan, Allen [duncan.allen@epa.gov]; 'Le, Madison' [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9297d8b52bcb41319ba40d11142ab307-Le, Madison]; Master, Barbora [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2c813860457b42019078b33089aaeee5-bjemelko]; Lie, Sharyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02041179e5dd4b9e9c5ea63701032c04-slie]; Olechiw, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9f564b92ff96459ab606eb66e5892e2d-Olechiw, Michael]; Moran, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cdc537a0f9d5433dae083bca681af983-Moran, Robin]; Lieske, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c836c7dea7054dd8807120a1d401cac8-Lieske, Christopher]; Orlin, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=aa64dad518d64c5f9801eb9bb15b7ec3-DORLIN]; Stahle, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b25318c6014d4fb985288e15143c8596-SSTAHLE]; Aranda, Amber [aranda.amber@epa.gov]; Kataoka, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1e29f87a97c343739016147a80f9c57d-MKATAOKA]
CC: Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; Haley, Mike [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0b3d67842d0e435986abaf1b0c25214e-Mhaley]; Cook, Leila [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d4536ad140a1461781d78ca67921b02f-Cook, Leila]; Charmley, William [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=fb1828fb00af42ffb68b9e0a71626d95-Charmley, William]; Bunker, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ddf7bcf023d241a9a477a2dc75d5901c-Bunker, Byron]; Simon, Karl [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4d781d1ad595415db3a4e768c2d2b3fc-Simon, Karl]
Subject: New QFRs - due by COB, Thursday, June 21st
Attachments: SAC QFRs 6-18-18.docx

Hi all,
Attached are even more OAR-related QFRs {and a chart is below on suggested Division for response} – these are from Senate Approps on the FY19 budget.

The deadline is ridiculous as always (**Thursday, June 21st**). Julia and I are setting up a Sharepoint site for QFRs and the like, so we will get the link out as soon as we have it, but we wanted to get these QFRs in your inboxes ASAP given the short deadline. We know that Sharepoint is sometimes hard for those reviewing by phone (so we'll just deal with that if/when it becomes an issue), but we think this will make it a little easier on all of us for drafting & review considering how quick some of the timelines are on these requests.

Deliberative Process / Ex. 5

Comments/questions/concerns? Just let us know! And please of course forward to anyone I may have missed here.

Senator	Question #	Subject	Division	Notes	Ready for OAR Review?
Murkowski	3	Pilot boats	Deliberative Process / Ex. 5	Deliberative Process / Ex. 5	
Murkowski	*4*	*Stationary generators*			
Udall	19	RFS small refinery hardships			
Rubio	11	Biomass-to-energy pathway registration & petition apps			
Rubio	12	Biomass & RFS			
Rubio	13	Improving rate of capture & use of biomethane			
Reed	4	LD GHG			

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 6/20/2018 6:34:17 PM
To: Burkholder, Dallas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=667ef175292d4784997e454a9985b3b3-Burkholder, Dallas]; Scoville, Pat [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3a78d930883b4664ad29d6afa5cec4be-PScovill]
CC: Burch, Julia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=27b0cd43b0404bab89aef0c8d08c165f-Burch, Julia]
Subject: RE: RFS 2019 and BBD 2020
Attachments: Action Memo - RFS 2019 RVO NPRM.DOCX

Hey Pat,
Did you (or Ben) make any edits to this action memo that Dallas sent? We may need to make a few additional edits, so just wanted to make sure this was the correct one to use.

Thanks,
Tia

From: Burkholder, Dallas
Sent: Monday, June 11, 2018 3:40 PM
To: Scoville, Pat <Scoville.Pat@epa.gov>
Cc: Burch, Julia <Burch.Julia@epa.gov>; Sutton, Tia <sutton.tia@epa.gov>
Subject: RE: RFS 2019 and BBD 2020

Pat,
A draft of the action memo is attached. Please let me know if you have any questions about the document, or need anything more from me on this.

Dallas

From: Scoville, Pat
Sent: Monday, June 11, 2018 9:27 AM
To: Burkholder, Dallas <burkholder.dallas@epa.gov>
Subject: RE: RFS 2019 and BBD 2020

Thanks

From: Burkholder, Dallas
Sent: Monday, June 11, 2018 9:25 AM
To: Scoville, Pat <Scoville.Pat@epa.gov>
Subject: RE: RFS 2019 and BBD 2020

Thanks for the reminder Pat. I should be able to get these to you today.

From: Scoville, Pat
Sent: Monday, June 11, 2018 9:21 AM
To: Burkholder, Dallas <burkholder.dallas@epa.gov>
Cc: Hengst, Benjamin <Hengst.Benjamin@epa.gov>; Burch, Julia <Burch.Julia@epa.gov>
Subject: RFS 2019 and BBD 2020

Good morning, Please start sending me the action memos... Thanks

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 2/22/2018 5:47:38 PM
To: Manners, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebdb1392504a4b71894970b1a7bb186c-Manners, Mary]
CC: Le, Madison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9297d8b52bcb41319ba40d11142ab307-Le, Madison]
Subject: RE: For drafting/review by Pruitt EPW QFRs: Deadline 10A.M. Friday Feb. 23

Hey – any way you guys can dial me in to your discussion? Deliberative Process / Ex. 5
Deliberative Process / Ex. 5

From: Manners, Mary
Sent: Thursday, February 22, 2018 12:42 PM
To: Sutton, Tia <sutton.tia@epa.gov>
Cc: Le, Madison <Le.Madison@epa.gov>
Subject: RE: For drafting/review by Pruitt EPW QFRs: Deadline 10A.M. Friday Feb. 23

Hi Tia,

Byron, Madison, and I are talking about Deliberative Process / Ex. 5
Deliberative Process / Ex. 5

Thanks.

From: Sutton, Tia
Sent: Wednesday, February 21, 2018 9:49 AM
To: Manners, Mary <manners.mary@epa.gov>
Cc: Le, Madison <Le.Madison@epa.gov>
Subject: Re: For drafting/review by Pruitt EPW QFRs: Deadline 10A.M. Friday Feb. 23

I shall check. Dallas set up the sharepoint site, so you can contact him for access. (Sorry- I thought everyone had access to it, so that's why I went with that one.)

Deliberative Process / Ex. 5

Sent from my iPhone

On Feb 21, 2018, at 9:46 AM, Manners, Mary <manners.mary@epa.gov> wrote:

> Hi Tia –
>
> I don't have access to the SharePoint site so I'm not positive Carper 31 was assigned to Deliberative Process / Ex. 5
>
> Deliberative Process / Ex. 5
>
> Deliberative Process / Ex. 5

Thanks much,
Mary

From: Sutton, Tia
Sent: Friday, February 16, 2018 4:21 PM
To: Charmley, William <charmley.william@epa.gov>; Sargeant, Kathryn <sargeant.kathryn@epa.gov>; Olechiw, Michael <olechiw.michael@epa.gov>; Moran, Robin <moran.robin@epa.gov>; Nelson, Brian <nelson.brian@epa.gov>; Moulis, Charles <moulis.charles@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Korotney, David <korotney.david@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Moltzen, Michael <Moltzen.Michael@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>
Cc: Burch, Julia <Burch.Julia@epa.gov>; Cook, Leila <cook.leila@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>
Subject: For drafting/review by Pruitt EPW QFRs: Deadline 10A.M. Friday Feb. 23

All,
Attached are the QFRs from the Administrator's January 30, 2018 EPW hearing (https://www.epw.senate.gov/public/index.cfm/hearings?ID=8E3E883C-477F-4A6A-9F1E-1DDAADBDAF32). We have been asked to get responses to Bill W for review first thing next Friday AM, so we need all draft responses in by **COB Thursday, 2/22** so Chris can review.

The table below denotes the OTAQ-related QFRs, but I'm attaching the whole set in case there are others that we should weigh in on. Please note as you draft responses:

1)
2) **Deliberative Process / Ex. 5**
3)
4) Again- deadline is **COB Thursday.** Deliberative Process / Ex. 5

Member	Question #	OAR Office	Subject
Barrasso	6	Deliberative Process / Ex. 5	MTE
Barrasso	7		RVOs- Biodiesel
Carper	19		PM 2.5, glider kits
Carper	31		RIN market manipulation
Carper	32		RFS- EV pathways
Ernst	61		RFS- reform (incl RIN reform)
Ernst	62		RFS- RINs & E15
Ernst	63		RFS- RINs
Fischer	65		RFS- reform (incl RIN reform)

Fischer	66	Deliberative Process / Ex. 5	RFS - PES bankruptcy
Fischer	67		RFS - PES bankruptcy
Fischer	68		RFS- cellulosic/D3 RINs
Fischer	69		RFS- cellulosic/D3 RINs
Fischer	70		RFS- 2019 RVO & cellulosic volumes
Wicker	108		RFS- small refinery hardship exemptions

Message

From: Sutton, Tia [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=25E87403F63143ACBB959446512A372C-SUTTON, TIA]
Sent: 2/22/2018 5:42:47 PM
To: Manners, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ebdb1392504a4b71894970b1a7bb186c-Manners, Mary]
CC: Le, Madison [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9297d8b52bcb41319ba40d11142ab307-Le, Madison]
Subject: RE: For drafting/review by Pruitt EPW QFRs: Deadline 10A.M. Friday Feb. 23

Sorry – I should've mentioned that I was going to bring it up with them in a standing mtg we have at 1:30 today. I'll try to ping folks now though.

From: Manners, Mary
Sent: Thursday, February 22, 2018 12:42 PM
To: Sutton, Tia <sutton.tia@epa.gov>
Cc: Le, Madison <Le.Madison@epa.gov>
Subject: RE: For drafting/review by Pruitt EPW QFRs: Deadline 10A.M. Friday Feb. 23

Hi Tia,

Byron, Madison, and I are talking about Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Thanks.

From: Sutton, Tia
Sent: Wednesday, February 21, 2018 9:49 AM
To: Manners, Mary <manners.mary@epa.gov>
Cc: Le, Madison <Le.Madison@epa.gov>
Subject: Re: For drafting/review by Pruitt EPW QFRs: Deadline 10A.M. Friday Feb. 23

I shall check. Dallas set up the sharepoint site, so you can contact him for access. (Sorry- I thought everyone had access to it, so that's why I went with that one.)

Deliberative Process / Ex. 5

Sent from my iPhone

On Feb 21, 2018, at 9:46 AM, Manners, Mary <manners.mary@epa.gov> wrote:

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>
> Deliberative Process / Ex. 5
>
> Deliberative Process / Ex. 5

Thanks much,
Mary

From: Sutton, Tia
Sent: Friday, February 16, 2018 4:21 PM
To: Charmley, William <charmley.william@epa.gov>; Sargeant, Kathryn <sargeant.kathryn@epa.gov>; Olechiw, Michael <olechiw.michael@epa.gov>; Moran, Robin <moran.robin@epa.gov>; Nelson, Brian <nelson.brian@epa.gov>; Moulis, Charles <moulis.charles@epa.gov>; Machiele, Paul <machiele.paul@epa.gov>; Burkholder, Dallas <burkholder.dallas@epa.gov>; Korotney, David <korotney.david@epa.gov>; Michaels, Lauren <Michaels.Lauren@epa.gov>; Simon, Karl <Simon.Karl@epa.gov>; Lie, Sharyn <Lie.Sharyn@epa.gov>; Moltzen, Michael <Moltzen.Michael@epa.gov>; Bunker, Byron <bunker.byron@epa.gov>; Manners, Mary <manners.mary@epa.gov>; Cohen, Janet <cohen.janet@epa.gov>; Le, Madison <Le.Madison@epa.gov>; Weihrauch, John <Weihrauch.John@epa.gov>; Anderson, Robert <Anderson.Robert@epa.gov>; Orlin, David <Orlin.David@epa.gov>; Li, Ryland (Shengzhi) <Li.Ryland@epa.gov>; Dubois, Roland <Dubois.Roland@epa.gov>; Argyropoulos, Paul <Argyropoulos.Paul@epa.gov>
Cc: Burch, Julia <Burch.Julia@epa.gov>; Cook, Leila <cook.leila@epa.gov>; Hengst, Benjamin <Hengst.Benjamin@epa.gov>
Subject: For drafting/review by Pruitt EPW QFRs: Deadline 10A.M. Friday Feb. 23

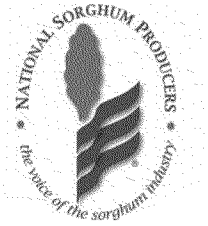
All,
Attached are the QFRs from the Administrator's January 30, 2018 EPW hearing (https://www.epw.senate.gov/public/index.cfm/hearings?ID=8E3E883C-477F-4A6A-9F1E-1DDAADBDAF32). We have been asked to get responses to Bill W for review first thing next Friday AM, so we need all draft responses in by **COB Thursday, 2/22** so Chris can review.

The table below denotes the OTAQ-related QFRs, but I'm attaching the whole set in case there are others that we should weigh in on. Please note as you draft responses:

1)
2) **Deliberative Process / Ex. 5**
3)
4) Again- deadline is **COB Thursday.** Deliberative Process / Ex. 5

Member	Question #	OAR Office	Subject
Barrasso	6	OTAQ	MTE
Barrasso	7	OTAQ	RVOs- Biodiesel
Carper	19	OAQPS/OTAQ	PM 2.5, glider kits
Carper	31	OTAQ	RIN market manipulation
Carper	32	OTAQ	RFS- EV pathways
Ernst	61	OTAQ	RFS- reform (incl RIN reform)
Ernst	62	OTAQ	RFS- RINs & E15
Ernst	63	OTAQ	RFS- RINs
Fischer	65	OTAQ	RFS- reform (incl RIN reform)

Fischer	66	OTAQ	RFS - PES bankruptcy
Fischer	67	OTAQ	RFS - PES bankruptcy
Fischer	68	OTAQ	RFS- cellulosic/D3 RINs
Fischer	69	OTAQ	RFS- cellulosic/D3 RINs
Fischer	70	OTAQ	RFS- 2019 RVO & cellulosic volumes
Wicker	108	OTAQ	RFS- small refinery hardship exemptions



September 12, 2018

The Honorable Donald J. Trump
President of the United States
The White House
1600 Pennsylvania Avenue, NW
Washington, DC 20500

Dear Mr. President,

As representatives of the nation's farm families and biofuel producers, we were highly encouraged to hear Agriculture Secretary Sonny Perdue state on August 29 that an announcement could come very soon regarding your administration's plan to restore integrity to the Renewable Fuel Standard (RFS) and allow year-round sales of E15.[1] With ethanol prices hitting a 13-year low and net farm income plummeting to half of the record $123 billion achieved in 2013, such an announcement could not come at a more critical juncture for rural America. However, we remain concerned that any benefit from year-round E15 sales and proper implementation of the RFS could be nullified if refiners are given further regulatory bailouts that undercut the spirit and intent of the law.

Two simple administrative actions would provide a desperately needed economic boost to our sectors. We urge your administration to act immediately to 1) allow year-round sales of E15 and other mid-level blends in conventional gasoline markets, and 2) ensure that RFS blending requirements erased by small refinery exemptions are prospectively reallocated to larger refiners, as required by law.

Mr. President, the circumstances have changed since you first began considering these issues, and renewable fuel producers and farmers are suffering. Thousands of manufacturing and farming jobs in America's Heartland are now at risk due to the EPA's recent mismanagement of the RFS and inexplicable delay in removing the de facto summertime ban on E15.

Due to the wave of RFS compliance exemptions doled out by the EPA, refiners have already gotten exactly what they asked for: artificially low RIN credit prices and weaker biofuel

[1] Sents, N. (Aug. 29, 2018). Trump wants year-round E15 approval next week, says Perdue. *Successful Farming*. Retrieved Aug. 30, 2018, from https://www.agriculture.com/news/business/trade-rfs-top-concerns-for-perdue-during-iowa-visit

blending requirements. Ethanol RIN prices have been trading in a narrow range between 20-30 cents since May, a decrease of nearly 80 percent since last fall, because of EPA's actions this year. In response to weakening demand and mounting supplies, ethanol prices, RIN credit prices, and ethanol profit margins are plunging.

The situation is even more dire in the grain markets, where prices received by farmers are sagging below the cost of production. With a near-record corn crop expected this fall and tariffs putting a damper on trade opportunities, farmers desperately need expanded access to markets and new sources of demand.

Former EPA Administrator Scott Pruitt already gave refiners far more than their end of a deal in the form of 2.25 billion gallons of biofuels demand destruction, and they are reaping the rewards of that windfall today. Now, with the biofuel and agriculture industries hurting, it's rural America's turn to get its end of the deal.

With harvest already underway, it is exactly the right time to deliver on your promise to make farmers great again by securing the market access and new demand needed to fuel continued economic growth and prosperity across rural America.

Sincerely,

Kevin Skunes
President
National Corn Growers Association

Zippy Duvall
President
American Farm Bureau Federation

Roger Johnson
President
National Farmers Union

Don Bloss
Chairman
National Sorghum Producers

Bob Dinneen
President & CEO
Renewable Fuels Association

Brian Jennings
CEO
American Coalition for Ethanol

Emily Skor
CEO
Growth Energy

Message

From: Sopata, Joe [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4C7F99B2B5594810B4F656C8450C1E0F-JSOPATA]
Sent: 1/8/2013 7:01:04 PM
To: Weihrauch, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=74d426b7439045d9a0a65b186ea68b21-Jweihrau]
CC: Lindsay Fitzgerald [Fitzgerald.Lindsay@epa.gov]; Heard, Geanetta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2123c0de56ce4fcead12c361a49af3d8-Gheard]
Subject: Fw: EO 12866/13563 Interagency Comments on Amendments to the Renewable Fuel Standard (RFS2) - RIN 2060-AR21
Attachments: EO12866_Interagency Comments_RFS_Amendments_NPRM_2060-AR21 - 12_14_2012_ EPA responses 1-2-13 afd Sl.docx; EO12866_Interagency Comments_RFS_Amendments_NPRM_2060-AR21 - 01_08_2012 jrs (Track Changes).docx; EO12866_Interagency Comments_RFS_Amendments_NPRM_2060-AR21 - 01_08_2012 jrs (clean copy).docx

Please see email below as background. **Deliberative Process / Ex. 5**
Deliberative Process / Ex. 5 Thanks lots,
Joe

EO12866_Intera... Comments_RFS...
EO12866_Intera... Comments_RFS...

----- Forwarded by Joe Sopata/DC/USEPA/US on 01/08/2013 01:59 PM -----

From: Sharyn Lie/DC/USEPA/US

To: Joe Sopata/DC/USEPA/US@EPA
Date: 01/08/2013 01:32 PM
Subject: Re: EO 12866/13563 Interagency Comments on Amendments to the Renewable Fuel Standard (RFS2) - RIN 2060-AR21

Joe,

Our OGC contacts are John Hannon and Roland Dubois. Also, can you please cc Paul Machiele and David Korotney on the version that gets sent around?

Deliberative Process / Ex. 5

Thanks,
Sharyn

EO12866_Intera... Comments_RFS...

From: Joe Sopata/DC/USEPA/US

To: Sharyn Lie/DC/USEPA/US@EPA
Date: 01/08/2013 10:47 AM
Subject: Re: EO 12866/13563 Interagency Comments on Amendments to the Renewable Fuel Standard (RFS2) - RIN 2060-AR21

Who is the OGC contact? Thanks, Joe

From: Sharyn Lie/DC/USEPA/US
To: Angie Dickens/DC/USEPA/US@EPA
Cc: Joe Sopata/DC/USEPA/US@EPA, Vincent Camobreco/DC/USEPA/US@EPA
Date: 01/07/2013 05:40 PM
Subject: Re: EO 12866/13563 Interagency Comments on Amendments to the Renewable Fuel Standard (RFS2) - RIN 2060-AR21

Joe,

Deliberative Process / Ex. 5

Thanks.
Sharyn

From: Angie Dickens/DC/USEPA/US
To: Joe Sopata/DC/USEPA/US@EPA
Cc: Sharyn Lie/DC/USEPA/US@EPA, Vincent Camobreco/DC/USEPA/US@EPA
Date: 01/07/2013 05:33 PM
Subject: Re: EO 12866/13563 Interagency Comments on Amendments to the Renewable Fuel Standard (RFS2) - RIN 2060-AR21

Hi Joe,

Deliberative Process / Ex. 5

Angie F. Dickens, Ph.D.
AAAS Science & Technology Policy Fellow

EPA Office of Transportation and Air Quality
Ariel Rios North (6520Z)
Phone: (202) 564-9562

From: Joe Sopata/DC/USEPA/US
To: Angie Dickens/DC/USEPA/US@EPA
Date: 01/07/2013 04:16 PM
Subject: Re: EO 12866/13563 Interagency Comments on Amendments to the Renewable Fuel Standard (RFS2) - RIN 2060-AR21

Hi Angie:

Deliberative Process / Ex. 5 Please let me know, Sharyn Lei was hoping to get the proposed rule to OGC today so that it could go to Chris Grundler tomorrow.

Thanks,
Joe Sopata
Chemist
USEPA/OAR/OTAQ/CD/FCC
Ph# 202-343-9034
email: sopata.joe@epa.gov

From: Angie Dickens/DC/USEPA/US
To: Joe Sopata/DC/USEPA/US@EPA
Date: 01/03/2013 02:32 PM
Subject: Re: EO 12866/13563 Interagency Comments on Amendments to the Renewable Fuel Standard (RFS2) - RIN 2060-AR21

Hi Joe,

I've been waiting for our contact in GPP to get back from vacation. He's back now and is having a look at that today. Deliberative Process / Ex. 5 but we'll come up with a response in the next day or two - I should have something for you by tomorrow some time.

Angie

Angie F. Dickens, Ph.D.
AAAS Science & Technology Policy Fellow
EPA Office of Transportation and Air Quality
Ariel Rios North (6520Z)
Phone: (202) 564-9562

From: Joe Sopata/DC/USEPA/US
To: Angie Dickens/DC/USEPA/US@EPA
Date: 01/03/2013 02:28 PM
Subject: Re: EO 12866/13563 Interagency Comments on Amendments to the Renewable Fuel Standard (RFS2) - RIN

2060-AR21

Hi Angie,

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5 Please feel free to contact me if you have any questions.

Thanks lots,
Joe Sopata
Chemist
USEPA/OAR/OTAQ/CD/FCC
Ph# 202-343-9034
email: sopata.joe@epa.gov

[attachment "EO12866_Interagency Comments_RFS_Amendments_NPRM_2060-AR21 - 01_03_2012 jrs.docx" deleted by Angie Dickens/DC/USEPA/US]

Message

From: Sopata, Joe [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4C7F99B2B5594810B4F656C8450C1E0F-JSOPATA]
Sent: 1/8/2013 3:53:54 PM
To: Weihrauch, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=74d426b7439045d9a0a65b186ea68b21-Jweihrau]
CC: Lindsay Fitzgerald [Fitzgerald.Lindsay@epa.gov]; Heard, Geanetta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2123c0de56ce4fcead12c361a49af3d8-Gheard]
Subject: EO 12866/13563 Interagency Comments on Amendments to the Renewable Fuel Standard (RFS2) - RIN 2060-AR21
Attachments: EO12866_Interagency Comments_RFS_Amendments_NPRM_2060-AR21 - 01_08_2012 jrs (clean copy).docx; EO12866_Interagency Comments_RFS_Amendments_NPRM_2060-AR21 - 01_03_2012 jrs (Track Changes).docx

Importance: High

Please see attached for Pathways II NPRM. Please note there is a clean copy and a copy in track changes, the version in track changes has our response to Inter-agency comments.
FYI, Sharyn Lie is asking for this to go to review to OGC as well as others so that Chris Grundler may review soon thereafter. Please let me know if I should I send to them prior to your review and comment.

Thanks lots,
Joe Sopata
Chemist
USEPA/OAR/OTAQ/CD/FCC
Ph# 202-343-9034
email: sopata.joe@epa.gov

EO12866_Intera... Comments_RFS... EO12866_Intera... Comments_RFS...

Message

From: Sopata, Joe [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4C7F99B2B5594810B4F656C8450C1E0F-JSOPATA]
Sent: 1/4/2013 7:32:29 PM
To: Heard, Geanetta [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2123c0de56ce4fcead12c361a49af3d8-Gheard]
CC: Weihrauch, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=74d426b7439045d9a0a65b186ea68b21-Jweihrau]; Lindsay Fitzgerald [Fitzgerald.Lindsay@epa.gov]
Subject: Pathways II in track changes
Attachments: EO12866_Interagency Comments_RFS_Amendments_NPRM_2060-AR21 - 01_03_2012 jrs.docx

Hi Geanetta,

Please see attached for the Pathways II NPRM in track changes. Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

John and Lindsay, Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

EO12866_Intera...
Comments_RFS...

Please let me know if you have any questions.

Thanks lots
Joe Sopata
Chemist
USEPA/OAR/OTAQ/CD/FCC
Ph# 202-343-9034
email: sopata.joe@epa.gov