to this action because this measure does not modify any SIP control requirement that was in effect before November 15, 1990.

We are proposing to find that the submitted measure satisfies CAA requirements for enforceability, SIP revisions, and nontraditional emission reduction programs as interpreted in EPA guidance documents. The TSD contains more information on our evaluation of this measure.

C. Public Comment and Proposed Action

The EPA proposes to fully approve the submitted measure under CAA section 110(k)(3) based on a conclusion that the measure satisfies all applicable requirements. We will accept comments from the public on this proposal until January 26, 2018. If we take final action to approve the submitted measure, our final action will incorporate this measure into the federally enforceable SIP.

III. Incorporation by Reference

In this action, the EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference the NSAQMD measure described in Table 1 of this preamble. The EPA has made, and will continue to make, these materials available through *www.regulations.gov* and at the EPA Region IX Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

IV. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this proposed action merely proposes to approve state law as meeting federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a ''significant regulatory action'' subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide the EPA with the discretionary authority to address disproportionate human health or environmental effects with practical, appropriate, and legally permissible methods under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Particulate matter, Reporting and recordkeeping requirements.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: December 14, 2017.

Deborah Jordan,

Acting Regional Administrator, Region IX.

[FR Doc. 2017–27950 Filed 12–26–17; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 80

[EPA–HQ–OAR–2017–0655; FRL–9972–59–OAR]

RIN 2060–AT82

Proposed Rule; Renewable Fuel Standard Program; Grain Sorghum Oil Pathway

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: In this proposed rule, the Environmental Protection Agency (EPA) is providing an opportunity to comment on an analysis of the lifecycle greenhouse gas (GHG) emissions associated with certain biofuels that are produced from grain sorghum oil extracted at dry mill ethanol plants at any point downstream from sorghum grinding, also known as distiller sorghum oil. EPA seeks comment on its proposed assessment that using distillers sorghum oil as feedstock results in no significant agricultural sector GHG emissions; and that biodiesel and heating oil produced from distillers sorghum oil via a transesterification process, and renewable diesel, jet fuel, heating oil, naphtha, and liquefied petroleum gas (LPG) produced from distillers sorghum oil via a hydrotreating process, would meet the lifecycle GHG emissions reduction threshold of 50 percent required for advanced biofuels, and biomass-based diesel under the Renewable Fuel Standard program. Based on these analyses, EPA is proposing to amend the RFS program regulations to define the term ''distillers sorghum oil''. We also propose to add to the regulations approved pathways from the production of biodiesel and heating oil from distillers sorghum oil via a transesterification process, and renewable diesel, jet fuel, heating oil, naphtha, and liquefied petroleum gas (LPG) produced from distillers sorghum oil via a hydrotreating process.

DATES: Comments must be received on or before January 26, 2018.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2017–0655, at *http://www.regulations.gov.* Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or withdrawn from *Regulations.gov.* The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be

Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.*

FOR FURTHER INFORMATION CONTACT: Diana Galperin, Office of Air and Radiation, Office of Transportation and Air Quality, Mail Code: 6401A, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue NW, Washington, DC 20460; telephone number: 202–564–5687; email address: *Galperin.diana@epa.gov.*

SUPPLEMENTARY INFORMATION:

Outline of This Preamble

I. General Information

A. Does this action apply to me?

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

Examples of potentially affected entities	NAICS [1] codes
Sorghum Farming	11119, 111191, 111199
Petroleum refineries (including importers).	324110
Ethyl alcohol manufacturing.	325193
Other basic organic chemical manufacturing.	325199
Chemical and allied products merchant wholesalers.	424690
Petroleum Bulk Stations and Terminals; Petroleum	424710, 424720
Other fuel dealers.	454310

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

B. What action is the Agency taking?

EPA is proposing to amend the RFS program regulations to define the term ''distillers sorghum oil'' as oil from grain sorghum that is extracted at a dry mill ethanol plant at any location downstream of grinding the grain sorghum kernel, provided that the grain sorghum is converted to ethanol, the oil is rendered unfit for food uses without further refining, and the distillers grains resulting from the dry mill and oil extraction processes are marketable as animal feed. We also propose to add to Table 1 to 80.1426(f), approved pathways from the production of biodiesel and heating oil from distillers sorghum oil via a transesterification process, and renewable diesel, jet fuel, heating oil, naphtha, and liquefied petroleum gas (LPG) produced from distillers sorghum oil via a hydrotreating process. Alternatively, or in addition, EPA may consider the comments it receives in response to this document in evaluating facility-specific pathway petitions submitted pursuant to 40 CFR 80.1416 that propose using distillers sorghum oil to make biofuel.

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

Statutory authority for this action comes from Clean Air Act sections 114, 208, 211, and 301.

II. Public Participation

EPA will not hold a public hearing on this matter unless a request is received by the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble by January 11, 2018. If EPA receives such a request, we will publish information related to the timing and location of the hearing and a new deadline for public comment.

III. Introduction

Section 211(o) of the Clean Air Act (CAA) establishes the Renewable Fuel Standard (RFS) program, under which EPA sets annual percentage standards specifying the amount of renewable fuel, as well as three subcategories of renewable fuel, that must be used to reduce or replace fossil fuel present in transportation fuel, heating oil, or jet

[1] North American Industry Classification System.

fuel. Non-exempt [2] renewable fuels must achieve at least a 20 percent reduction in lifecycle GHG emissions as compared to a 2005 petroleum baseline. Advanced biofuel and biomass-based diesel must achieve at least a 50 percent reduction, and cellulosic biofuel must achieve at least a 60 percent reduction.

In addition to the lifecycle GHG reduction requirements, renewable identification numbers (RINs) may only be generated if the fuel meets the other definitional criteria for renewable fuel (*e.g.,* produced from renewable biomass as defined in the regulations, and used to reduce or replace the quantity of fossil fuel present in transportation fuel, heating oil, or jet fuel) in CAA section 211(o) and the RFS regulations at 40 CFR part 80 subpart M.

Since the formation of the RFS program, EPA has periodically promulgated rules to add new pathways to the regulations.[3] In addition, EPA has approved facility-specific pathways through the petition process in 40 CFR 80.1416. There are three critical components of approved fuel pathways under the RFS program: (1) Fuel type; (2) feedstock; and (3) production process. Each pathway is associated with a specific ''D code'' depending on whether the fuel meets the requirements for renewable fuel, advanced fuel, cellulosic fuel, or biomass-based diesel.

EPA's lifecycle analyses are used to assess the overall GHG emissions of a fuel throughout each stage of its production and use. The results of these analyses, considering uncertainty and the weight of available evidence, are used to determine whether a fuel meets the necessary GHG reductions required under the CAA. Lifecycle analysis includes an assessment of emissions related to the full fuel lifecycle, including feedstock production, feedstock transportation, fuel production, fuel transportation and distribution, and tailpipe emissions. Per the CAA definition of lifecycle GHG emissions, EPA's lifecycle analyses also include an assessment of significant indirect emissions, such as those from land use changes and agricultural sector impacts.

EPA received a petition from the National Sorghum Producers (NSP), submitted under partial claims of confidential business information (CBI), requesting that EPA evaluate the GHG emissions associated with biofuels produced using grain sorghum oil derived from dry mill ethanol production as a feedstock, and that EPA provide a determination of the renewable fuel categories, if any, for which such biofuels may be eligible. In this action, EPA is proposing to amend the RFS program regulations to define the term ''distillers sorghum oil'' as oil from grain sorghum that is extracted at a dry mill ethanol plant at any location downstream of grinding the grain sorghum kernel, provided that the grain sorghum is converted to ethanol, the oil is rendered unfit for food uses without further refining, and the distillers grains resulting from the dry mill and oil extraction processes are marketable as animal feed. We also propose to add to Table 1 to 40 CFR 80.1426(f), approved pathways from the production of biodiesel and heating oil from distillers sorghum oil via a transesterification process, and renewable diesel, jet fuel, heating oil, naphtha, and LPG produced from distillers sorghum oil via a hydrotreating process. Alternatively, or in addition, EPA may consider the comments it receives in response to this document in evaluating facility-specific pathway petitions submitted pursuant to 40 CFR 80.1416 that propose using distillers sorghum oil to make biofuel.

This preamble describes EPA's analysis of the GHG emissions associated with distillers sorghum oil when used to produce specified biofuels. The analysis considers a scenario where distillers sorghum oil is extracted from distillers grains with solubles (DGS) at dry mill plants that produce ethanol from grain sorghum and where the remaining reduced-oil DGS co-product is used as animal feed. The distillers sorghum oil is then used as a feedstock for conversion into certain biofuels. As described in Section IV of this preamble, we estimate that the lifecycle GHG emissions associated with the production of biodiesel and heating oil produced from distillers sorghum oil via a transesterification process, and renewable diesel, jet fuel, naphtha, and LPG, produced from distillers sorghum oil via a hydrotreating process, are approximately 80 percent less than the lifecycle GHG emissions associated with the baseline petroleum fuels they would replace. Based on these results, we propose to find that these biofuels would meet the 50 percent GHG reduction threshold required for advanced biofuel and biomass-based diesel. We also anticipate that heating oil produced through transesterification or hydrotreating from distillers sorghum oil would meet the 50 percent GHG emission reduction threshold required for advanced biofuel and biomass-based diesel.[4] EPA is seeking public comment on its analyses of the lifecycle GHG emissions related to biofuels produced from distillers sorghum oil.

IV. Analysis of GHG Emissions Associated With Production of Biofuels From Distillers Sorghum Oil

A. Overview of Distillers Sorghum Oil

Dry mill ethanol plants grind and ferment grain sorghum, produce ethanol from the fermented grain sorghum starch, and also produce a DGS co-product (made of non-fermentable solids, solubles syrup, and sorghum oil) that is sold as a type of livestock feed. A portion of the oil that would otherwise reside in the DGS can be extracted at the ethanol plant, typically through gravimetric methods. At dry mill ethanol plants, sorghum oil is recovered through methods nearly identical to that of corn oil extracted from DGS, and corn and sorghum oil extraction can occur at the same facilities.

EPA has approved pathways for the production of ethanol from grain sorghum made through a dry mill process as qualifying for renewable fuel (D code 6) RINs, and in some cases advanced biofuel (D code 5) RINs, depending on process energy sources used during production.[5] However, the regulations do not currently include pathways for the production of other biofuels from grain sorghum. According to the U.S. Department of Agriculture (USDA), the largest regions for grain sorghum production in the United States are located in Texas, Oklahoma, and Kansas.[6] Currently about 30 percent

[2] A baseline volume of renewable fuel produced from facilities that commenced construction on or before December 19, 2007, and which completed construction by December 19, 2010 without an 18-month hiatus in construction, is exempt from the minimum 20 percent GHG reduction requirement that otherwise applies to renewable fuel. In addition, a baseline volume of ethanol from facilities that commenced construction after December 19, 2007, and on or before December 31, 2009, qualifies for the same exemption if construction was completed within 36 months without an 18-month hiatus in construction; the facility was fired with natural gas, biomass, or any combination thereof, at all times the facility operated between December 19, 2007 and December 31, 2009; and the baseline volume continues to be produced through processes fired with natural gas, biomass, or any combination thereof.

[3] Please see information on Pathways I and Pathways II in 40 CFR part 80 subpart M, and in the **Federal Register** at 78 FR 14190 (March 5, 2013) and 79 FR 42128 (July 18, 2014). More information on these can be found at: *https://www.epa.gov/renewable-fuel-standard-program/final-rule-identify-additional-fuel-pathways-under-renewable-fuel* and *https://www.epa.gov/renewable-fuel-standard-program/renewable-fuel-pathways-ii-final-rule-identify-additional-fuel.*

[4] As defined in the RFS regulations at 40 CFR 80.1401, biomass-based diesel excludes renewable fuel that is co-processed with petroleum. Such fuel may qualify as advanced biofuel if it meets the 50 percent GHG reduction threshold.

[5] Table 1 to 40 CFR 80.1426, Rows R and S.

[6] USDA, NASS, ''Sorghum for Grain 2016 Harvested Acres by County for Selected States,''

Continued

of grain sorghum grown, or 120 million bushels a year, goes towards ethanol production.[7] For comparison, in recent years over 5,200 million bushels of corn have been used for ethanol production annually.[8] Distillers sorghum oil is still a relatively niche product, and the NSP petition anticipates a potential of 12 to 21 million ethanol-equivalent gallons of fuel to be produced from the oil per year.

We propose to define distillers sorghum oil to mean oil recovered at a point downstream of where a dry mill grain sorghum ethanol plant grinds the grain sorghum, provided that the grain sorghum is converted to ethanol, the oil is rendered unfit for food uses without further refining, and the distillers grains resulting from the dry mill and oil extraction processes are marketable as animal feed. So long as these criteria are met, a variety of recovery methods could be implemented. For example, this would include recovery of sorghum oil before fermentation from the slurry or from liquefaction tanks. It would also include recovery of sorghum oil after fermentation from the thin stillage and/or DGS. Further, it would also include recovery of sorghum oil by a third-party from DGS produced by a dry mill sorghum ethanol plant.

B. Analysis of Lifecycle GHG Emissions

EPA evaluated the GHG emissions associated with using distillers sorghum oil as a biofuel feedstock based on information provided by the petitioner and other available data sources. GHG emissions include emissions from production and transport of distillers sorghum oil; the processing of the oil into biofuel; transport of the biofuel from the production facility to the fuel-blender; and, ultimately the use of the biofuel by the end consumer. The methodology EPA used for this analysis is generally the same approach used for the March 2010 RFS rule for lifecycle analyses of several other biofuel feedstocks, such as distillers corn oil and yellow grease.[9] We believe that applying the same methodology for these feedstocks is appropriate given similarities in how these feedstocks are produced, transported and processed into biofuel. These similarities are explained further in this section.

EPA's lifecycle analyses include upstream emissions, which include the significant direct and indirect GHG emissions (including such emissions from land use changes) associated with producing a feedstock and transporting it to the processing facility. All of the upstream emissions were calculated and taken into account in EPA's evaluation of the lifecycle GHG emissions associated with grain sorghum ethanol.[10] Based on our analysis, producing distillers sorghum oil at a dry mill ethanol plant converting grain sorghum to ethanol, and using the extracted sorghum oil as a biofuel feedstock does not result in additional upstream emissions, compared to the upstream emissions that have already been calculated and attributed to grain sorghum ethanol. Further, based on our analysis, the production of distillers sorghum oil does not significantly impact the upstream emissions associated with grain sorghum ethanol. While producing distillers sorghum oil may impact livestock markets, through the effects of de-oiling DGS, we discuss in the next section why, based on the data we have reviewed, we do not anticipate this to cause any significant indirect impacts. We welcome comments on this data and analysis.

1. Livestock Sector Impacts

During a typical dry mill ethanol production process, DGS are produced. These DGS are then used as animal feed, thereby displacing feed crops and the GHG emissions associated with growing and transporting those feed crops. When distillers sorghum oil is produced, DGS continue to be created with reduced oil content. A significant portion of this analysis focuses on reviewing how reduced-oil DGS compare to full-oil DGS in terms of feed values and displacement of other feeds.

Chemically, full-oil and reduced-oil sorghum DGS share similar compositions, primarily made up of crude protein, fat, and natural and acid detergent fibers. Where the two products differ most significantly is in their acid detergent fiber and fat concentrations. Table IV.1 shows the key nutrients that make up dried full-oil and reduced-oil DGS.

TABLE IV.1—KEY NUTRIENT MAKE-UP OF FULL-OIL AND REDUCED-OIL DRIED DISTILLERS GRAINS WITH SOLUBLES (DDGS) [11]

Nutrient	Full-oil sorghum DDGS	Reduced-oil sorghum DDGS
Crude Protein, %	30.80	31.36
Crude Fat, % (aka Ether Extract)	9.75	3.91
Neutral Detergent Fiber (NDF), %	33.60	37.23
Acid Detergent Fiber (ADF), %	22.68	31.91
Ash, %	6.62	7.60
Calcium, %	0.12	0.08
Phosphorus, %	0.76	0.96
Lysine, %	0.82	0.62
Methionine, %	0.54	0.47
Cystine, %	0.53	0.61
Tryptophan, %	0.25	0.23

The difference in fat values is important as crude fat concentrations impact net energy uptake by the livestock. A memorandum to the docket shows the total net energy profiles by livestock of full-oil and reduced-oil sorghum DGS.[12] Should fat content not be at sufficient levels, livestock producers might need to add nutrients or other types of feed to meet appropriate nutritional targets. This is reflected in the ''displacement rate'' of a DGS, which indicates how much weight a pound of distillers grain can replace of another feed. A lower displacement rate for a reduced-oil distillers grain as compared to a full-oil distillers grain could result in additional GHG emissions as it suggests that additional feed is required. In the case of reduced-oil sorghum DGS, we believe that it is unlikely that additional feed will be needed to backfill for the extracted oil.

Research suggests that for poultry and swine, ''increased concentrations of free fatty acids have a negative impact on

https://www.nass.usda.gov/Charts_and_Maps/graphics/AS-HA-RGBChor.pdf.

[7] Sorghum Checkoff, ''Renewables,'' *http://www.sorghumcheckoff.com/market-opportunities/renewables,* accessed 09–05–2017.

[8] USDA, ERS, ''Table 5— Corn supply, disappearance, and share of total corn used for ethanol,'' *U.S. Bioenergy Statistics, https://www.ers.usda.gov/data-products/us-bioenergy-statistics/us-bioenergy-statistics/#Feedstocks,* accessed 09–05–2017.

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

[10] See the December 2012 grain sorghum ethanol rule (77 FR 74592).

[11] The chart lists the most prominent nutrients in distillers grains. Data provided by the National Sorghum Producers. Data for full-oil Sorghum DDGS is sourced from *Nutrient Requirements of Swine,* 2012 National Academies Press, Washington DC, pg 329. Data for reduced-oil Sorghum DDGS was calculated by National Sorghum Producers using the ratio of (1) corn DDGS, between 6 to 9 percent Oil; and (2) corn DDGS, less than 4 percent oil from *Nutrient Requirements of Swine,* 2012 National Academies Press, Washington, DC, pp. 266 and 267.

[12] ''Summary of Net Energy Impacts of Reduced-Oil Sorghum Dried Distillers Grains with Solubles (DDGS) on Livestock,'' Air Docket EPA–HQ–OAR–2017–0655.

lipid digestion and energy content.'' [13] Free fatty acids are a class of acids that form part of a lipid molecule. Full-oil DGS typically contain higher levels of free fatty acids and thus may have a negative impact on the fat digestion of poultry and swine. This supports the conclusion that while the fat content may be lower for reduced-oil DGS, feeding values of this product should not be worse than full-oil DGS for poultry and swine.

For dairy, there are also benefits from feeding reduced-oil DGS as compared to full-oil DGS. Research on dairy cows shows that reduced-oil DGS produce a lessened likelihood of the onset of milk fat depression.[14] Milk fat depression occurs when milk fat is reduced by 0.2 percent or more.[15] If milk fat depression occurs over the long term, a decline in overall milk production may occur as well as worsened health conditions of the herd. High fat diets have been linked with this condition and have been shown to worsen the rumen environment of dairy cattle.[16] Therefore, dairy producers seek to avoid high fat diets. Given the benefits of reduced-oil DGS over full-oil DGS for milk fat production, it is expected that reduced-oil DGS will be preferred over full-oil DGS by dairy producers and that displacement rates will be no worse than those of full-oil DGS.

An impact on displacement rates may occur when reduced-oil instead of full-oil DGS are used for beef cattle, which has the ability to digest additional fat. Table IV.2 shows the displacement ratios for the livestock sectors where dried DGS (DDGS) are used. In this table, for instance, 1 pound of reduced-oil DDGS fed to beef cattle displaces 1.173 pounds of corn. A pound of full-oil and reduced-oil DDGS also displace equal portions (0.056 pounds) of urea. Urea is a non-protein nitrogen compound that is typically fed to cattle for aiding the production of protein by rumen microbes.[17] These values show that for dairy, swine, and poultry, reduced-oil DDGS replace the same amounts of alternative feed despite containing less oil.

TABLE IV.2—FULL-OIL AND REDUCED-OIL SORGHUM DISTILLERS GRAINS WITH SOLUBLES DISPLACEMENT RATIOS [18]

[lb of ingredient/lb of sorghum distillers grains with solubles, dry matter basis]

Ingredient	Beef cattle		Dairy cattle		Swine		Poultry [19]	
	Full-Oil	Reduced-Oil	Full-Oil	Reduced-Oil	Full-Oil	Reduced-Oil	Full-Oil	Reduced-Oil
Corn	1.196	1.173	0.731	0.731	0.890	0.890	0.292	0.292
Soybean Meal	.....	.....	0.633	0.633	0.095	0.095		
Urea	0.056	0.056						

We anticipate that sorghum oil producers will seek to sell reduced-oil DGS to poultry, swine, and dairy cow producers, as these markets allow them to obtain a higher value for their product. Dairy cattle producers may be willing to pay a premium for reduced-oil distillers grains, as data suggests lower oil DGs improve milk production. Sales of reduced-oil DGS to the beef cattle market are less likely, and in these cases we anticipate that should a higher fat product be required, the fat content of the DGS could be augmented through the addition of distillers sorghum oil, thereby reducing the volumes of biofuel produced from distillers sorghum oil but not causing additional indirect GHG emissions. Therefore, we do not expect that sorghum oil extraction will have a significant impact on the feed value of DGS and thus will have no significant indirect GHG impacts per pound of DGS. We welcome comment on this assessment.

2. Feedstock Production

Distillers sorghum oil is removed from DGS at dry mill ethanol plants using the same equipment and technologies used for corn oil extraction. Oil extraction requires thermal energy to heat the DGS and electricity to power centrifuges, pumps and other oil recovery equipment. Our analysis for the March 2010 RFS final rule,[20] the NSP petition, and two studies,[21] [22] indicate that although extracting oil from DGS uses thermal

[13] Kerr, B.J., W.A. Dozier, and G.C. Shurson. (2016). ''Lipid digestibility and energy content of distillers' corn oil in swine and poultry,'' *Journal of Animal Science.* 94:2900–2908. doi:10.2527/jas.2016–0440, pp. 2905.

[14] H.A. Ramirez-Ramirez, E. Castillo Lopez, C.J.R. Jenkins, N.D. Aluthge, C. Anderson, S.C. Fernando, K.J. Harvatine, P.J. Kononoff, (2016). ''Reduced-fat dried distillers grains with solubles reduces the risk for milk fat depression and supports milk production and ruminal fermentation in dairy cows,'' *Journal of Dairy Science,* Volume 99, Issue 3 Pages 1912–1928, ISSN 0022–0302, *http://dx.doi.org/10.3168/jds.2015-9712. (http://www.sciencedirect.com/science/article/pii/S0022030216000515)*

[15] University of Kentucky, ''Preventing Milk Fat Depression in Dairy Cows,'' *https://afs.ca.uky.edu/dairy/preventing-milk-fat-depression-dairy-cows.* Accessed September 8, 2018. On the herd level milk fats range from 3 to 5 percent normally. Oetzel, Garret R., ''Subacute Ruminal Acidosis in Dairy Herds: Physiology, Pathophysiology, Milk Fat Responses, and Nutritional Management.'' Preconference Seminar 7A: Dairy Herd Problem Investigation Strategies: Lameness, Cow Comfort, and Ruminal Acidosis, American Association of Bovine Practitioners, 40th Annual Conference, September 17, 2007—Vancouver, BC, Canada, *https://www.vetmed.wisc.edu/dms/fapm/fapmtools/2nutr/sara1aabp.pdf* pp.98.

[16] PennState Extension, ''Troubleshooting Problems with Milkfat Depression,'' August 14, 2017, *https://extension.psu.edu/troubleshooting-problems-with-milkfat-depression.* Accessed September 8, 2017.

[17] PennState Extension, ''Urea in Beef Cattle Rations,'' August 8, 2017, *https://extension.psu.edu/urea-in-beef-cattle-rations.* Accessed October 18, 2017.

[18] Information provided by National Sorghum Producers, using the following sources Arora et al., (2008). Argonne National Laboratory. ''Update of distillers grains displacement ratios for corn ethanol life-cycle analysis''; Kerr et al., (2016). ''Lipid digestibility and energy content of distillers' corn oil in swine and poultry,'' *Journal of Animal Science* 94:2900-8.; Opheim et al., (2016). ''Biofuel feedstock and blended coproducts compared with deoiled corn distillers grains in feedlot diets: Effects on cattle growth performance, apparent total tract nutrient digestibility, and carcass characteristics,'' *Journal of Animal Science* 94:227.; Ramirez et al., (2016). ''Reduced-fat dried distillers grains with solubles reduces the risk for milk fat depression and supports milk production and ruminal fermentation in dairy cows,'' *Journal of Dairy Science* 99:1912-28. Poultry displacement ratios were provided by the National Sorghum Producers and calculated based on data from the Iowa State Extension Services, Agricultural Marketing and Resources Center, ''Estimated U.S. Dried Distillers Grains with Solubles (DDGS) Production and Use, *https://www.extension.iastate.edu/agdm/crops/outlook/dgsbalancesheet.pdf.*

[19] Protein sources such as soybean meal can be used to supplement sorghum DGS for poultry.

[20] See section 1.4.1.3 of USEPA (2010). Renewable fuel standard program (RFS2) regulatory impact analysis. U.S. Environmental Protection Agency Office of Transportation Air Quality, EPA–420–R–10–006. Washington, DC. *https://www.epa.gov/sites/production/files/2015-08/documents/420r10006.pdf.*

[21] Wang, Z., et al. (2015). ''Influence of corn oil recovery on life-cycle greenhouse gas emissions of corn ethanol and corn oil biodiesel.'' *Biotechnology for Biofuels* 8(1): 178.

[22] Mueller, S., Kwik, J. (2013). ''2012 Corn Ethanol: Emerging Plant Energy and Environmental Technologies.''

energy, it also leads to relatively less thermal energy being used later in the process to dry the DGS, resulting in an overall negligible change in thermal energy requirements for plants that dry their DGS. Our analysis here includes both the thermal and electrical energy requirements to remove the distillers sorghum oil. We do not account for the reduction in thermal energy needed for DGS drying mentioned above, so this can be viewed as a conservative approach (*i.e.,* resulting in higher estimated GHG emissions) for plants that dry their DGS.[23] Based on data reviewed by EPA,[24] we assume 200 Btu (British thermal units) of grid electricity and 800 Btu of natural gas are used to extract distillers sorghum oil from DGS, per pound of distillers sorghum oil extracted. These parameters are based on energy requirements associated with extracting oil from DGS at dry mill ethanol plants, but we believe they are also appropriate and conservative in cases where the oil is extracted at any point downstream from sorghum grinding.

As discussed above, we do not expect sorghum oil extraction to significantly change the feed value of DGS on a per pound basis. According to the NSP petition, grain sorghum oil yields should be 0.67 pounds per bushel of grain sorghum feedstock.[25] EPA's modeling for the December 2012 grain sorghum ethanol final rule (77 FR 74592) assumed average dried DGS yield of 17 pounds per bushel of grain sorghum feedstock. Thus, sorghum oil extraction may reduce the total mass of DGS produced by up to approximately 4 percent. If full-oil and reduced-oil DGS have equivalent feed value on a per pound basis, we would expect a reduction in the total mass of DGS produced to impact livestock feed markets and result in a net increase in GHG emissions if production of other feed crops (*e.g.,* corn, soybeans) increased to backfill the lost DGS, given that producing additional corn and soybeans would result in more GHG emissions.[26] However, if reduced-oil DGS are more beneficial than full oil DGS for dairy cows, on a per pound of DGS basis, that could offset some or all of the impacts associated with the DGS mass reduction. The information currently available makes the magnitude of these countervailing impacts difficult to determine, and we did not include any emissions impacts from DGS mass reduction in our lifecycle GHG analysis of biofuels produced from distillers sorghum oil. We invite comment on our analysis of the GHG emissions associated with extracting sorghum oil from DGS.

3. Feedstock Transport

In our analysis, distillers sorghum oil is transported 50 miles by heavy duty truck from the dry mill ethanol plant to the biodiesel or hydrotreating facility where it is converted to transportation fuel. GHG emissions associated with feedstock transport are relatively small, and modest changes in transport distance are unlikely to affect the results of our analysis.

4. Feedstock Pretreatment

For emissions from feedstock pretreatment and fuel production, we perform two analyses. In the first analysis, we calculate the emissions from biodiesel produced using transesterification. In the second analysis, we calculate the emissions from renewable diesel, jet fuel, LPG, and naphtha, produced using hydrotreating. In Section V below, we then explain how similar results can be inferred for heating oil.

Before distillers sorghum oil is converted to biodiesel via transesterification, it is processed to remove free-fatty acids. This process requires thermal energy. Our evaluation of yellow grease for the March 2010 RFS final rule included 14,532 Btu of natural gas per gallon of biodiesel produced for pretreatment, and we have applied the same assumption for this analysis. According to the NSP petition, distillers sorghum oil has free fatty acid content near or below 15 percent, which is in the range of yellow grease free fatty acid contents (<15 percent).[27] This rate of thermal energy use for pretreatment is higher than thermal energy rates used in other lifecycle assessments EPA reviewed,[28] and can be viewed as a conservative assumption (*i.e.,* resulting in higher GHG emissions).

Pretreatment to remove free-fatty acids is not required when distillers sorghum oil is used to produce renewable diesel, jet fuel, LPG and naphtha through a hydrotreating process.

5. Fuel Production

For biodiesel production, we used the transesterification analysis for the March 2010 RFS rule for yellow grease biodiesel.[29] Based on comparison of this yellow grease analysis and the mass and energy balance data in the NSP petition, submitted under claim of CBI, the conversion of yellow grease and distillers sorghum oil are expected to require similar energy inputs and yield similar amounts of biodiesel and methanol as outputs.

For production of renewable diesel, jet fuel, naphtha and LPG via a hydrotreating process, we used the same data and approach as used in the March 2013 Pathways I rule (78 FR 14190, March 5, 2013), and subsequent facility-specific petitions involving hydrotreating processes.[30] The March 2013 Pathways I rule evaluated two hydrotreating configurations: One optimized for renewable diesel production and one optimized for jet fuel production. For this analysis we evaluated a hydrotreating process maximized for renewable diesel production, as that is the most common configuration. The jet fuel configuration results in higher emissions (approximately 5 $kgCO_2e$/mmBtu higher), but the threshold GHG reduction results discussed below are not sensitive to this assumption.

Our previous analyses of hydrotreating processes have applied an energy allocation approach for RIN-generating co-products that qualify as renewable fuel.[31] This approach results in higher lifecycle GHG emissions for each of the fuel products than other approaches considered, such as a

[23] The purpose of lifecycle assessment under the RFS program is not to precisely estimate lifecycle GHG emissions associated with particular biofuels, but instead to determine whether or not the fuels satisfy specified lifecycle GHG emissions thresholds to qualify as one or more of the four types of renewable fuel specified in the statute. Where there are a range of possible outcomes and the fuel satisfies the GHG reduction requirements when ''conservative'' assumptions are used, then a more precise quantification of the matter is not required for purposes of a pathway determination.

[24] See sources referenced in footnotes 20 and 21 for energy use associated with oil extraction, and California Air Resources Board (2014). ''California-Modified GREET Fuel Pathway: Biodiesel Produced in the Midwestern and the Western U.S. from Corn Oil Extracted at Dry Mill Ethanol Plants that Produce Wet Distiller's Grains with Solubles.'' Staff Summary, Method 1 Fuel Pathway.

[25] NSP petition, section F.2.iv

[26] For example, the California Air Resources Board (CARB) estimated this impact would be approximately 10 $kgCO_2e$/mmBtu of biodiesel produced from distillers corn oil (*https://www.arb.ca.gov/fuels/lcfs/2a2b/apps/co_bd_wdgs-rpt-102414.pdf*). Applying such an impact to our analysis of biofuels produced from distillers sorghum oil would not change the GHG thresholds results for the biofuels produced from distillers sorghum oil evaluated in this document.

[27] See Table 15 in the January 5, 2012 Pathways I direct final rule (77 FR 722).

[28] See for example: *https://www.arb.ca.gov/fuels/lcfs/2a2b/apps/co_bd_wdgs-rpt-102414.pdf.*

[29] For details see section 2.4 of the RIA for the March 2010 RFS final rule.

[30] For determination documents responding to facility specific petitions, see: *https://www.epa.gov/renewable-fuelstandard-program/approved-pathways-renewable-fuel.*

[31] See the March 2013 Pathways I rule, specifically 78 FR 14198–14200 (March 5, 2013).

displacement approach, and thus can be viewed as a conservative approach.

In the allocation approach, all the emissions from the hydrotreating process are allocated across all co-products. There are a number of ways to do the allocation, for example on the basis of energy, mass, or economic value. Consistent with the approach taken in the hydrotreating analysis for the March 2013 RFS rule, for this analysis of fuels produced from distillers sorghum oil feedstock through a hydrotreating process we allocated emissions to the renewable diesel, naphtha and LPG based on the energy content (using lower-heating values) of the products produced. Emissions from the process were allocated equally to all of the Btus of fuel produced. Therefore, on a per Btu basis, all of the primary products coming from the hydrotreating facility have the same emissions from the fuel production stage of the lifecycle. For this analysis, the energy content was the most appropriate basis for allocating emissions because all of the fuel products are used as sources of energy. Energy content also has the advantage of being a fixed factor as opposed to market prices which fluctuate over time.

6. Fuel Distribution

We used the fuel distribution results from the biodiesel analysis for the March 2010 RFS rule. Fuel distribution emissions are relatively small compared to baseline lifecycle GHG emissions (see Table IV.3 below), and although they may be different for different types of fuel, for the purposes of this analysis we assume that renewable diesel, jet fuel, LPG, and naphtha, have the same fuel distribution emissions per mmBtu of fuel used. Even if we applied a more precise value for fuel distribution emissions, we do not expect that revision to change our assessment that these fuels meet a 50 percent GHG emission reduction.

7. Fuel Use

For this analysis we applied fuel use emissions factors developed for the March 2010 RFS final rule. For biodiesel we used the biodiesel emissions factor. For renewable diesel and jet fuel we used the emissions factors for non-CO_2 GHGs for baseline diesel fuel. For naphtha we used the emissions factors for non-CO_2 GHGs for baseline gasoline fuel. For LPG we used the LPG non-CO_2 emissions factor developed for the March 2010 RFS rule. The tailpipe emissions are relatively small, and the threshold GHG reduction results are not sensitive to these assumptions. More details on our analysis of fuel use emissions are described in a memo [32] to the rulemaking docket.

8. Results of GHG Lifecycle Analysis

Table IV.3 shows the lifecycle GHG emissions associated with biofuels produced from distillers sorghum oil that result from our assessment. The table also shows the percent reduction relative to the petroleum baseline. All of the fuels are compared to the diesel baseline, except for naphtha which is compared to the gasoline baseline.

TABLE IV.3—LIFECYCLE GHG EMISSIONS ASSOCIATED WITH BIOFUELS PRODUCED FROM DISTILLERS SORGHUM OIL ($kgCO_2$-eq/MJ)

Fuel	Biodiesel	Renewable diesel, jet fuel	Naphtha	LPG	2005 Diesel baseline	2005 Gasoline baseline
Production process	Transesterification	Hydrotreating			Refining	
Feedstock Production	5.6	6.2	6.2	6.2	18.0	19.2
Feedstock Transport	0.2	0.3	0.3	0.3		
Feedstock Pretreatment	8.4					
Fuel Production	1.2	8.0	8.0	8.0		
Fuel Distribution	0.8	0.8	0.8	0.8		
Fuel Use	0.7	0.7	1.7	1.5	79.0	79.0
Total	17.0	16.0	17.0	16.8	97.0	98.2
Percent Reduction	82	84	82	83		

V. Consideration of Lifecycle Analysis Results

Based on the lifecycle GHG emissions results presented above, all of the pathways evaluated would meet the 50 percent GHG reduction threshold required for advanced biofuel and biomass-based diesel.

The results presented above would also justify qualifying heating oil produced from distillers sorghum oil as meeting the 50 percent GHG threshold. In previous rulemakings, EPA considered the lifecycle GHG impacts associated with heating oil and determined that heating oil produced from a range of feedstocks (*e.g.,* soybean oil, distillers corn oil) via a transesterification or hydrotreating process satisfies the 50 percent lifecycle GHG reduction required for advanced biofuel.[33] Based on the results presented above, we anticipate that biofuels such as heating oil produced from distillers sorghum oil have significantly lower lifecycle GHG emissions than the same fuels produced from soybean oil, when the same production processes are used.[34] Therefore, based on EPA's previous lifecycle evaluations for heating oil produced from soybean oil, we believe that heating oil produced from distillers sorghum oil would also satisfy the 50 percent GHG reduction requirement.

VI. Summary

Based on our GHG lifecycle evaluation described above, we propose to find that biodiesel and heating oil produced from distillers sorghum oil via a transesterification process, and renewable diesel, jet fuel and heating oil produced from distillers sorghum oil via a hydrotreating process meet the 50 percent GHG reduction threshold requirement for advanced biofuel and biomass-based diesel. This finding

[32] See, ''Summary of Key Assumptions for EPA's Analysis of the Lifecycle Greenhouse Gas Emissions Associated with Biofuels Produced from Distillers Sorghum Oil,'' Air Docket EPA–HQ–OAR–2017–0655.

[33] See the March 2013 RFS Pathway I rule (78 FR 14190, March 5, 2013).

[34] For example, in analysis for the March 2010 RFS rule, EPA found that soybean oil biodiesel achieves a 57 percent GHG reduction (based on the mean result from our uncertainty assessment), whereas the results in Table IV.3, above, show biodiesel produced from distillers sorghum oil achieve a greater than 80 percent reduction.

would support a determination that these fuels are eligible for biomass-based diesel (D-code 4) RINs if they are produced through a process that does not co-process renewable biomass and petroleum, and for advanced biofuel (D-code 5) RINs if they are produced through a process that does co-process renewable biomass and petroleum. EPA invites comment on all aspects of its analysis of these proposed biofuel pathways.

VII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at *http://www2.epa.gov/laws-regulations/laws-and-executive-orders.*

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

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is not expected to be an Executive Order 13771 regulatory action because this action is not significant under Executive Order 12866.

C. Paperwork Reduction Act (PRA)

This action does not impose any new information collection burden under the provisions of the *Paperwork Reduction Act,* 44 U.S.C. 3501 *et seq.,* and therefore is not subject to these requirements.

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. This action will not impose any requirements 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. This rule proposes to provide a positive economic effect for distillers sorghum oil producers and producers of biofuels from distillers sorghum oil as they would be able to participate in the RFS program, see CAA section 211(o).

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. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

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 proposed rule would affect only producers of distillers sorghum oil and producers of biofuels made from distillers sorghum oil. 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 EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it because it 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 subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer 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 proposed rule does not affect the level of protection provided to human health or the environment by applicable air quality standards. This action does not relax the control measures on sources regulated by the fuel programs and RFS regulations and therefore will not cause emissions increases from these sources.

List of Subjects in 40 CFR Part 80

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

Dated: December 19, 2017.

E. Scott Pruitt,

Administrator.

For the reasons set forth in the preamble, EPA proposes to amend 40 CFR part 80 as follows:

PART 80—REGULATION OF FUEL AND FUEL ADDITIVES

■ 1. The authority 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 80.1401 is amended by adding in alphabetical order a new definition for ''distillers sorghum oil'' to read as follows:

§ 80.1401 Definitions.

* * * * *

Distillers sorghum oil means oil recovered at a point downstream of where a dry mill grain sorghum ethanol plant grinds the grain sorghum, provided that the grain sorghum is converted to ethanol, the oil is rendered unfit for food uses without further refining, and the distillers grains resulting from the dry mill and oil extraction processes are marketable as animal feed.

* * * * *

■ 3. Section 80.1426, paragraph (f)(1) is amended by revising entries F, H, and I in Table 1 to § 80.1426 to read as follows:

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

* * * * *

(f) * * *

(1) * * *

TABLE 1 TO § 80.1426—APPLICABLE D CODES FOR EACH FUEL PATHWAY FOR USE IN GENERATING RINS

Entry	Fuel type	Feedstock	Production process requirements	D-code
*	*	*	*	*
F	Biodiesel, renewable diesel, jet fuel and heating oil, biodiesel.	Soy bean oil; Oil from annual covercrops; Oil from algae grown photosynthetically; Biogenic waste oils/fats/greases; Non-food grade corn oil; *Camelina sativa* oil; Distillers sorghum oil.	One of the following: TransEsterification Hydrotreating Excluding processes that co-process renewable biomass and petroleum.	4
*	*	*	*	*
H	Biodiesel, renewable diesel, jet fuel and heating oil.	Soy bean oil; Oil from annual covercrops; Oil from algae grown photosynthetically; Biogenic waste oils/fats/greases; Non-food grade corn oil; *Camelina sativa* oil; Distillers sorghum oil.	One of the following: TransEsterification Hydrotreating Includes only processes that co-process renewable biomass and petroleum.	5
I	Naphtha, LPG	*Camelina sativa* oil; Distillers sorghum oil.	Hydrotreating	5
*	*	*	*	*

* * * * *

[FR Doc. 2017–27946 Filed 12–26–17; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 131

[EPA–HQ–OW–2017–0010; FRL–9972–46–OW]

RIN 2040–AF69

Water Quality Standards for the State of Missouri's Lakes and Reservoirs

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA or Agency) proposes to establish federal nutrient criteria to protect designated uses for the State of Missouri's lakes and reservoirs. On August 16, 2011, EPA disapproved most of the numeric criteria for total nitrogen, total phosphorus, and chlorophyll *a* that the State submitted to EPA in 2009. EPA acknowledged the importance of Missouri's proactive efforts to address nutrient pollution by adopting numeric nutrient criteria. However, EPA concluded that the Missouri Department of Natural Resources (MDNR) had failed to demonstrate the criteria would protect the State's designated uses and were not based on a sound scientific rationale. The Clean Water Act (CWA) directs EPA to promptly propose water quality standards (WQS) that meet CWA requirements if a state does not adopt WQS addressing EPA's disapproval. On February 24, 2016, the Missouri Coalition for the Environment (MCE) filed a lawsuit alleging that EPA failed to satisfy its statutory obligation to act ''promptly.'' On December 1, 2016, EPA entered into a consent decree with MCE committing to sign a notice of proposed rulemaking by December 15, 2017 to address EPA's 2011 disapproval, unless the State submits and EPA approves criteria that address the disapproval on or before December 15, 2017. As of the date of this proposed rule, Missouri has not submitted new or revised standards to address EPA's 2011 disapproval and EPA has not approved such water quality standards. Therefore, under the terms of the consent decree, EPA is signing a notice of proposed rulemaking that proposes new water quality standards addressing EPA's August 16, 2011 disapproval. In this proposal, EPA seeks comment on two primary alternatives. Under the first alternative, EPA proposes nutrient protection values and eutrophication impact factors in a combined criterion approach. Under the second alternative, EPA proposes a similar combined criterion approach that would mirror the State of Missouri's October 2017 proposal for lake nutrient water quality standards. EPA will not proceed with final rulemaking (or will withdraw its final rule, if applicable) to address its 2011 disapproval if Missouri adopts and submits criteria to address EPA's 2011 disapproval and EPA approves them as meeting CWA requirements.

DATES: Comments must be received on or before February 26, 2018.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OW–2017–0010, at *http://www.regulations.gov.* Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from regulations.gov. EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.* on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *http://www2.epa.gov/dockets/commenting-epa-dockets.*

EPA is offering two online public hearings so that interested parties may provide verbal comments on this proposed rule. The first public hearing