The American Petroleum Institute (API)\(^1\) and American Fuel & Petrochemical Manufacturers\(^2\) appreciate the opportunity to provide comments to EPA’s Proposed Rulemaking entitled Renewables Enhancement and Growth Support Rule. AFPM and API support EPA’s intent to apply the environmental controls on fuels in a uniform, balanced, and equitable manner.

A. **BIOINTERMEDIATES**

1. General

AFPM and API support EPA’s proposal to maintain the current regulatory framework that ensures, with very few exceptions, that only the renewable fuel producer is permitted to generate RINs.\(^3\) This provision of the regulations helps minimize RIN double-counting and provides more confidence in the integrity of these RINs.

We support the multi-facility approach to biointermediates and end-products. Biointermediates may be easier to transport than whole or even pre-processed biomass. This allows for more feedstock flexibility and product flexibility and may allow for easier deployment of second-generation biofuels (however, it does not intend to limit production of first generation biofuels any more stringently).

---

\(^1\) The American Petroleum Institute (API) is the only national trade association that represents all aspects of America’s oil and natural gas industry. Our more than 625 corporate members, from the largest major oil company to the smallest of independents, come from all segments of the industry. They are producers, refiners, suppliers, marketers, pipeline operators and marine transporters, as well as service and supply companies that support all segments of the industry.

\(^2\) AFPM is a national trade association representing nearly 400 companies that encompass virtually all U.S. refining and petrochemical manufacturing capacity.

\(^3\) 81 Fed. Reg. 80836
AFPM and API agree with EPA’s proposal to require biointermediate producers to undergo annual attest engagements similar to current annual attest engagement requirements for renewable fuel producers. This is necessary to assure that biointermediate producers are treated the same way as renewable fuel producers and that the finished renewable fuel fully complies with regulatory requirements.

EPA proposes that for a renewable fuel producer to generate a Q-RIN, both the biointermediate producer and the renewable fuel producer must have in place an EPA-approved pathway-specific QAP. AFPM and API agree. This requirement is critically important to ensuring RIN integrity at a time when fraud may be continuing in the renewable fuel producer industry.

EPA proposes that during the interim implementation period, biointermediate producers and renewable fuel producers using biointermediates must have EPA-approved pathway-specific QAPs. During the proposed interim period, this proposed QAP restriction should not apply to foreign ethanol producers who are currently covered under RFS regulations.

2. Biointermediates Lifecycle Assessment

The application of sound science requires EPA’s GHG Life Cycle Assessment (LCA) to include the entire carbon footprint of the biofuel produced under the RFS, including emissions associated with the transportation of biointermediates. EPA’s assumption that transportation of biointermediates would not need a revised LCA should be tested, as transportation distance could impact GHG emissions significantly. Options to address this issue include:

- A limit on transport distance could be set to ensure a robust LCA for multiple facilities; greater transportation distances could require the establishment of a more precise LCA.
- LCA could be conducted to quantify the highest emissions potentially associated with transport of a biointermediate from one coast to another. If this “highest emissions scenario” is not significantly different than the registered pathway, then this assumption can stand.
- The energy density of the biointermediate can also affect GHG emissions. For example, if biomass is processed into a dilute sugar intermediate and then transported across the country where it is then fermented, the emissions associated with transporting a high water-content biointermediate would be significantly higher (per unit energy) than transporting undenatured ethanol, for example. This issue is especially relevant for cellulosic sugars, where the biointermediate produced between pretreatment and upgrading can be quite dilute.

B. ETHANOL FLEX-FUEL

a) Definition

---

4 81 Fed. Reg. 80839
5 81 Fed. Reg. 80840
AFPM and API support EPA’s intent to apply the environmental controls on fuels in a uniform, balanced, and equitable manner (i.e. equally to gasoline and EFF). EPA must decide whether to keep the current classification of E16-50 as gasoline or to re-classify it as Ethanol Flex Fuel (EFF) in the same category as E51-83. EPA proposes to categorize E16-50 blends as EFF for FFVs only. This regulatory determination would have significant consequences for fuel manufacturers and the environment. EFF currently is not subject to the same level of environmental controls as gasoline. AFPM and API agree with EPA “...it is important that clear quality standards apply to any fuel used in an FFV, including sulfur, benzene, RVP, and composing only of carbon, hydrogen, oxygen, nitrogen, and sulfur, or ‘CHONS.’” These parameters are regulated based on health and environmental considerations and must apply equally to all motor fuels.

API and AFPM support the proposed sulfur, benzene and elemental composition requirements for EFF mirroring those for gasoline.

EPA proposes RVP standards for EFF upstream of blender pumps that parallel those for gasoline without the 1 psi waiver for E10, but does not propose an RVP standard for blender pumps. The RVP standards placed for blender pump EFF are insufficient when E0 is a parent blend.

API and AFPM support equal treatment for EFF and gasoline with regard to the Registration and Health Testing in Part 79. The Testing Requirements for Registration in Subpart F of 40 CFR Part 79 also apply to fuels other than gasoline. The definitions in section 79.50 are general, not specific to only gasoline. Therefore, the regulations in Part 79 require testing for all fuels, including E16-50 and E51-83. Characterizing E16-50 as an EFF does not exempt E16-50 from these testing regulations. This testing is required, since the same kinds of emissions and exposure-related issues those regulations address could also exist for E16-50.

The Agency proposes that E16-50 is EFF and not gasoline, but does not propose to modify §79.56(e)(1)(i) to exclude E16-50 as part of the Gasoline Family. In addition, EPA could create a new family for E16-50 in Part 79. E16-50 does not meet §79.56(e)(1)(iv):

“(iv) The Ethanol Family includes fuels composed of at least 50 percent ethanol by volume and their associated fuel additives. The base fuel for this family is E85 as specified in §79.55(e).”

b) EFF and 3 Proposed Options

We support the classification of E16+ as EFF as EPA proposed in the NPRM. In addition, we support EPA’s proposed framework that would require EFF to meet sulfur, benzene, RVP and CHONS requirements the same as gasoline. We oppose suggestions that EPA deviate from their proposed approach for blender pumps (i.e, sulfur, benzene). Compliance testing at retail is done at the pump so it is uncertain how EPA would verify compliance with that suggested approach. Deviation is not necessary. The refiner/bulk blender options provide an option where the natural gasoline can be at any sulfur levels. The point of the expedited blender pump approach is that one can only rely on the product transfer documents (PTDs) to ensure

6 81 Fed. Reg. 80831
compliance if the components are compliant. We would like to provide the following comments on the three compliance mechanisms that were identified to produce EFF: the EFF Full-refiner option, the EFF Bulk blender-refiner option, and the EFF Blender pump-refiner option.

**EFF full-refiner option:**

We agree that the full-refiner option allows for the most flexibility to produce EFF since it allows refiners to utilize uncertified natural gasoline, certified natural gasoline EFF blendstock, certified gasoline, BOBs, denatured fuel ethanol (DFE) and undenatured ethanol as EFF blendstocks. We support the batch testing requirements that EPA proposed as requirement to select this option. It seems reasonable that the use of uncertified natural gasoline as a blendstock would require additional testing and certification requirements to assure product quality. We find the ethanol producer comments that the proposed per-batch testing requirements are not consistent with the current practice of in-line blending unpersuasive. Facilities that utilize in-line blending to produce EFF would need to follow the provisions of the EFF bulk blender-refiner option. Another alternative would be to blend up EFF in a tank and certify it before sales. This would allow the facility to utilize any of the approved blending components listed above.

Additionally, we offer the following:

- We support a summer 9 psi RVP standard in conventional gasoline (CG) with the 1-psi vapor pressure waiver granted by the Clean Air Act and implemented by the EPA. We also support a 7.8 psi RVP standard where gasoline is subject to 7.8 psi RVP standard, and a 7.0 psi RVP standard in RFG areas.
- We support consistent registration, record keeping, annual reporting and PTD requirements for EFF producers similar to those for gasoline.
- We support EPA’s proposal that once EFF has been certified, no additional blendstocks could be added downstream; no commingling batches of EFF downstream of the production facility except at EFF blender pump-refiner facilities and retail/WPC facilities that dispense EFF from dedicated dispensers.

Consistent with other fuel programs and in order to enhance compliance flexibility, we recommend allowing for averaging EFF compliance by refiners, and not EPA’s proposal of refinery-by-refinery basis. We also support benzene and sulfur trading provisions vs. EPA’s proposal not to allow trading.

**EFF bulk blender-refiner option:**

The EFF bulk blender-refiner option allows parties to avoid per-batch testing and rely upon PTD documentation to prove that the EFF was only produced using certified EFF blendstocks, participate in the proposed EFF quality survey and utilize the RVP compliance tool depending upon which components were used at outlined in Table IV.B.2-1 Methods Available to EFF Bulk Blender-Refiners To Demonstrate Compliance With the Proposed EFF Requirements. We agree that use of the certified blendstocks to avoid per-batch testing is a reasonable tradeoff. Enhanced PTD language will be the key to enforcement of E16-50 produced at a Bulk Blender
facility. Relying on compliant blendstocks is not as rigorous as requiring E16-50 to be certified via sampling and testing and could represent a greater risk to the environment.

We support the proposed use of certified natural gasoline for EFF, including reporting, sampling and testing requirements. EPA seeks comments on whether the RVP compliance tool should be allowed instead of measurement. We believe the compliance tool needs validation. EPA should continue to require compliance through testing, either by per batch certification or through refinery hand blends as is currently done for E10 and E15 blends. The compliance tool is based on blends of only 13 test fuels, none of which represents natural gasoline, and only two of which represent “E85” parent blends. This tool needs to be verified with a much wider set of test fuels before it could be used for compliance.

Specifically we support the proposed specifications and limitations for the certified natural gasoline EFF blendstock of:

- 10 ppm per gallon sulfur cap
- 0.62 volume percent benzene cap
- 275 degree F T90 distillation cap
- 375 degree F final boiling point cap
- 15 psi RVP cap
- 30 volume percent cap on natural gasoline in the product

**EFF blender pump-refiner option:**

The final option is the use of blender pumps at the retail station to make EFF only from compliant gasoline (E0, E10 with or without the 1 psi waiver, and E15) and EFF. The retailer demonstrates compliance through the use of PTD’s showing the blends were produced from compliant components.

Relying on compliant blendstocks is not as rigorous as requiring E16-50 to be certified via sampling and testing and could represent a greater risk to the environment. Given the different permutations for EFFs at the blender pumps, EPA must set an RVP standard produced at blender pumps to prevent higher emissions. EPA proposes they “would monitor the RVP of EFF produced at blender pumps, and if the results of this evaluation indicate that additional controls of EFF at blender pumps are warranted, such controls may be proposed in a later actions.” To ensure level playing field and avoid negative environmental impacts, EPA should first implement RVP controls and monitor/enforce compliance. We support EPA’s proposal requiring that E51-83 be the EFF parent blend used at blender pumps to provide additional quality control.

Our biggest concern with this option is the potential for misfueling if the product was dispensed from pumps that utilize a single hose. Since the hose traps EFF, a customer fueling a vehicle not certified to operate on EFF, a motorcycle, or a fuel can for small engines could put the wrong fuel in their equipment. EPA must rework the E15 misfueling mitigation program to address this real world concern. Alternatively, the EPA could require that EFF be dispensed from a separate hose than gasoline.

---

7 81 Fed. Reg. 80852
Natural gasoline as blendstock for EFF

EPA proposes that full refiners and EFF-blender refiners can use natural gasoline in the blend, subject to certain requirements, including a maximum RVP of 15 psi. We question the technical basis for this 15 psi max RVP requirement. We support provisions requiring refiners and importers of certified natural gasoline to register with EPA, and submit batch reports annually and issue PTDs.

c) EFF and Octane Number

AFPM and API oppose EPA setting an octane number specification for EFF and support the Agency’s decision to omit an octane specification for EFF from the Proposed Rule. Congress has not explicitly granted EPA the authority to regulate octane and AFPM and API question EPA’s authority to establish an octane standard under the CAA. Octane number is only mentioned once in 42 USC 7545 and that is in connection with the definition of “baseline gasoline” under the reformulated gasoline (RFG) program. Regulating octane would require EPA to first address numerous procedural requirements and would require several determinations and findings. AFPM and API believe that the Agency cannot meet the heavy burden imposed on it to justify regulating octane in this rulemaking. In addition, ASTM test methods for octane, D2699 and D2700, cannot be applied to all EFF because they include an upper limit – maximum 25 vol% ethanol.

d) EFF Benzene Standards

AFPM and API support the stipulation that compliance with the proposed 0.62 volume percent annual average benzene standard would be evaluated annually on an EFF refinery-by-refinery basis.8

e) EFF Summer RVP

AFPM and API support applying the same summer RVP standard to EFF as the summer RVP standard for gasoline. This would benefit air quality and level the playing field. EFF should not have a summer RVP standard that is independent of the local RVP standard that is applicable to gasoline. FFVs have a greater capability to control evaporative emissions compared to conventional gasoline vehicles, and we support EPA’s proposal to limit the RVP of EFF to 8.8 psi in CG areas where gasoline is subject to a 7.8 psi RVP standard and to 8.0 psi in RFG areas to provide a comparable level of evaporative emissions for FFVs operated on EFF compared to conventional gasoline vehicles operated on gasoline.9

f) EFF Samples at Blender Pumps

---

8 81 Fed. Reg. 80842. See also 40 CFR 80.1520(b)(2)
9 81 Fed. Reg. 80852
API and AFPM support sampling the final blended fuel (EFF or E15) not the individual components of the product. The National Institute for Standards and Technology (NIST) developed a recommended sampling procedure titled, “Taking an E15 Sample from a Multiple Product Dispenser (MPD),” after weights and measures officials discovered that the E15 gasoline they sampled experienced erratic ethanol content between samples (15% on first sample, 33% on second sample). The background for the sampling procedure explains the importance of the issue:

“[i]f the [E15] flow is interrupted prior to collecting at least 7.5 L (2–gal) the product must not be used in a fuel sample. By following the recommended procedures to collect samples for fuel quality determinations, an official should obtain an accurate representation of the fuel that the dispenser has delivered.” [emphasis added]

From that statement one can infer that you must test the blended product, not simply test the individual fuel components to determine if the RVP of E15 or EFF is meeting specifications. Testing the individual components would not prove that the fuel meets the requirements.

Additional clarification is found in the following excerpt found in the background to the NIST Handbook 158 recommended sampling procedure:

“It is important to recognize that the fuel blend is also affected by both the flow rate of the dispenser and system pressure, which vary depending on the number of dispensers on the system drawing from the different fuel storage tanks. The blend ratios will be different when using a MPD to produce E15 and mid-level ethanol blends (Exx). Because the normal fuel sampling process involves taking a small quantity of fuel at a slow flow rate (and that may involve re-starts), it is likely that the fuel blend in these samples are not representative of the fuel delivered in a typical customer transaction. The Environmental Protection Agency (EPA) has recognized that this operational characteristic of MPDs for blending E15 may result in the inadvertent mis-fueling of E15 in vehicles, engines, and equipment not covered under the EPA’s E15 waiver to the Clean Air Act. To help ensure that customers do not inadvertently mis-fuel vehicles, engines, and equipment not covered under E15 waiver, the EPA requires retailers to dispense E15 at a MPD only through EPA-approved MPD configurations.” “For these reasons, it is recommended that a fuel quality sample (e.g., 1 L) be taken from a larger sample of between 7.5 L (2-Gal) and 9.4 L (2.5-Gal) or more. The sample should be collected in a clean container (e.g., a 9.4 L (2.5-Gal) or 19 L (5-Gal) safety can under a continuous flow delivered at or near the fullflow rate of the device because this allows the dispenser adequate time to account for system variations in making its adjustments to the blend ratio. If the flow is interrupted prior

---


11 Email Feb 8, 2016, at 2:35 PM, Benjamin, Steve, CPM, Director, Standards Division, NCDA&CS
to collecting at least 7.5 L (2–gal) the product must not be used in a fuel sample. By following the recommended procedures to collect samples for fuel quality determinations, an official should obtain an accurate representation of the fuel that the dispenser has delivered.”

g) Controls and Prohibitions on Ethanol Flex Fuel Volatility

EPA should review the proposed language used in 80.1531 detailing the state-by-state volatility requirements for the Commonwealth of Massachusetts copied below:

"(19) Massachusetts. No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Barnstable, Berkshire, Bristol, Dukes, Essex, Franklin, Hampden, Hampshire, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester Counties."

The proposed language suggests that part of Massachusetts is RFG and part is CG at summer maximum 9.0 psi RVP. However, RFG is state-wide in Massachusetts. This proposed regulatory text should be replaced by the same text as other states with state-wide RFG, i.e., Connecticut, Delaware, the District of Columbia, New Jersey and Rhode Island.

h) EFF Deposit Control

EPA proposes to remove the deposit control requirement for E51-83 and not to adopt deposit control requirements for E16-83. EPA’s decision was made on the basis of insufficient data. SAE 2007-01-4071 showed that for E85, the 15% gasoline portion with an LAC treat rate of DCA might not be sufficient to prevent IVD in FFVs. While midlevel ethanol blends were not tested, this work suggests that an LAC treat of the gasoline may not be sufficient to mitigate IVD in those blends.

i) EFF Quality Survey Program:

We support the notion of an EFF Quality Survey, but believe that the survey should be voluntary for full refiners. Full refiners test and certify each batch of fuel, so the quality survey has less importance for them as regulated parties. We believe that if a refiner participates in the EFF Quality Survey, it should be given an affirmative defense for any compliance violations related to fuel produced during the period of time during its participation.

j) EFF Pump Label

EPA made the appropriate decision not to propose labeling requirements for EFF pumps. FTC promulgated rules for labeling EFF and we would not support duplicative labeling requirements.
k) Third Parties

API and AFPM support proposed requirements for third party professional engineers and electronic submission of engineering reviews to EPA. In addition, we support the proposed requirement for third-party auditors to minimize RIN fraud. Third-party professional engineers must comply with the requirements for QAP providers, must register with the EPA and must submit the reports directly to EPA instead of the renewable fuel producer. Third-party professional engineers are prohibited from failing to identify incorrect information in a renewable fuel producer’s registration, failing to properly conduct an engineering review, failing to disclose to EPA any financial, professional business or other interests with parties for whom the third-party professional engineer provides services under the RFS. To avoid conflicts of interest, we support EPA’s proposal to preclude third-party auditors from providing initial and triennial engineering reviews for the same renewable fuel producer.

C. RENEWABLE FUEL STANDARD

1. RVO for EFF

API and AFPM do not support, and question EPA’s authority, to defer imposition of an RVO on parties making EFF with natural gasoline blendstocks. These non-renewable hydrocarbon blendstocks should have the same RVO obligation as BOBs. The finished EFF is used in transportation, similar to EFF, E10, and E15 fuels formulated with BOBs.

2. eRINs

EPA expresses a concern shared by API and AFPM with the validity of RINs generated for electricity produced from biomass and used as transportation fuel. EPA emphasizes that two requirements must be met: 1) the electricity must be produced from biomass, and 2) the electricity must be used as a transportation fuel. As a means of addressing this concern, EPA provides potential structures for assuring valid RIN generation and electric vehicle consumption. However, these potential structures fail to meet both requirements.

There is a fundamental disconnect between biogas production and certainty that the electricity produced from the biogas is used as vehicle fuel in transportation to support valid RIN generation. Several parties are involved along the way: biogas producers, pipelines, IPP’s, utilities (who both produce and distribute), distributors, fleet stations, public EV charging stations, and individual EV customers (who charge at home). The processes established through the Renewable Energy Certificate (REC) market is an already established alternative for measuring the renewable power feeding into the grid that puts additional renewable sources (power, solar, hydro) on a level playing field to generate eRINs. Though under any measuring process, the complex system has a high risk for fraudulent RIN generation if proper regulatory controls are not implemented. The biogas producer, similar to a biointermediate producer, captures the biogas, but it isn’t ready for use in a vehicle until it is compressed, liquefied, or used in power generation. Efficient transport is likely in fungible pipelines, which would require some material tracking / management to the biofuel producer at the facility that generates CNG/LNG/electricity/other, where the RIN would be generated. If the fuel/electricity is not used in vehicle fuel, the RIN would need to be retired. The
responsibilities for RIN separation, and accountability for sale to vehicle fuel would need to be clearly defined, but have parallels with the rules regarding traditional biofuels sales into US domestic transportation/heating oil/jet fuels for domestic use.

EPA must propose for public comment through the rulemaking process a regulatory structure meeting both requirements to move forward with an eRIN provision. In addition, EPA must take public comment on the number of RINs to be generated per unit of electricity consumed as transportation fuel (i.e. energy equivalency value) accounting for energy losses during vehicle charging and vehicle use, and the appropriate reductions for vehicle electricity consumption that is used for non-transportation purposes, to reflect the actual electricity used to propel a transportation vehicle.

API and AFPM submitted joint comments on renewable electricity pathways in response to EPA’s Proposed Rulemaking “RFS Pathways II and Technical Amendments to the RFS2 Standards” (Docket ID EPA-HQ-OAR-2012-0401 on July 13, 2013). They are re-inserted below as they continue to be relevant:

“As EPA states, “Landfills can generate electricity by combustion of the methane in their biogas...once generated, the electricity enters the electric grid.” Net GHG environmental benefits from this electricity generation process would be assessed and tracked by EPA’s tailoring rule. We agree with OMB, who pointed out this issue in its comments to the EPA during the interagency review of this proposed rule.

_The scheme proposed by EPA is particularly troubling, as it could potentially result in proliferation of invalid RINs. EPA’s recently proposed rulemaking “RFS Renewable Identification Number (RIN) Quality Assurance Program” (Federal Register, vol. 78, pages 12158-12217) does not address the issue of RIN validity for biogas and renewable electricity produced and used for transportation._

How does one know that the renewable electricity is not displacing other renewable or low carbon electricity in the grid (solar, wind, hydro, natural gas, nuclear)? Further, how does one account for down time at the landfill generating station? Even in the case when 100% of the electricity generated by the landfill facility is used to charge electric vehicles directly at the plant, how are these RINs separated, validated, and transferred to the obligated parties for compliance? This proposal, if finalized, has the potential to result in invalid RINs similar to the issue with fraudulent biodiesel RINs in 2011-2012, as a result of biodiesel producers’ ability to separate RINs provided they are introduced in the transportation sector as neat fuel.

Notwithstanding the discussion in the previous section regarding the high GHG emissions that should be included in landfill gas for not recycling paper, if the landfill gas displaces other renewable electricity, such as from wind or solar, there should be no RINs available.

Finally, Table 3 below shows two possible pathways for electricity generated from landfill gas and the use of electricity in electric vehicles; the Table uses EPA’s data. Pathway 1 supplies electricity from the plant directly to electric vehicles, as would be the case with a contract. Pathway 2 supplies electricity into the grid, where it
displaces grid electricity used for non-transportation purposes. At some other point, a user uses grid electricity to power electric vehicles. Note that in both cases the GHG emissions are equivalent. There is no change in GHG emissions because of the existence of a contract between the two parties, and so no RINs should be generated. Consider the case of a landfill that is already generating renewable electricity from landfill gas. With the increasing availability of PHEVs and EVs, it is likely that at least some of this electricity is going to charge these vehicles. However, if the landfill now signs contracts with these users, although there is no change in GHG emissions, RINs would be allocated to the landfill.”

3. Reporting

EPA proposes that obligated parties would now report the constituent products described in 40 CFR 80.1407(c) and (e) separately, instead of in total, beginning with the 2017 compliance year, stating that it would “enable the EPA to more easily track the production of gasoline and diesel by obligated parties and verify that the reported volumes are accurate.” This reference to 40 CFR 80.1407(c) and (e) is not clear. We support reporting of constituent products (gasoline, diesel), but need an exact definition of volumes to report by category instead of referencing 80.1407(c).

A refinery can report Total Diesel Volume and Heating Oil Volume. However, a refinery will not know the volume of renewable fuel blended into diesel outside of the refinery, such as at a terminal. Renewable Fuel Blended into Diesel should not be required.

The new requirement in section 80.1451 (1)(vii), as currently proposed, requires reporting under the RFS program for heating oil “beginning with the 2017 calendar year and every year thereafter, the production volume and import volume for heating oil, as defined in §

12 81 Fed. Reg. 80900
80.2(ccc).” That section also states that “volumes of renewable heating oil for which RINs were generated under § 80.1426 shall not be included.”

Even though the production and import volumes of heating oil can be obtained from existing records, companies do not have the capabilities to track the amount of renewable fuel in HO imports, distillate blendstocks used to produce HO, and previously designated HO and ULSD designated at the refinery as HO. The new proposed reporting obligation for heating oil will require companies to exclude these renewable volumes. This can be complex within a refinery system and with imports, and that capability will require time to develop.

The proposed 2017 compliance year is implemented too soon. This should be applicable the year after promulgation. For example, if this requirement is promulgated in 2017, then it should be effective beginning with the 2018 compliance year.

4. Revising the Requirements for the Generation of RINs for Fuel Made From Vegetable Oils

Viscous Renewable Diesel

EPA proposes to allow the generation of RINs by blenders of straight vegetable oil (defined as viscous renewable diesel (VRD)) and petroleum diesel. To generate RINs, EPA would require VRD Blenders to produce a fuel that meets the specifications of ASTM D975 Grade No. 1-D or No. 2-D. We believe that this provision could be misinterpreted to be limited to only the list of specifications within ASTM D975 and not the entire standard. EPA should clarify that this meet the entire ASTM standard- the totality-not just the numerical specifications.

Furthermore, a review of the entire standard appears to prohibit the use of VRD to produce a fuel that meets ASTM D975. Regardless, we believe that petroleum diesel/VRD blends would cause motor fuel quality issues related to oxidation stability and filter plugging and should not be allowed. ASTM D02 Subcommittee E has determined that raw vegetable oil or “viscous non-ester renewable diesel” is not fit for use in diesel engines or heating oil burners. The subcommittee balloted an update to D396, the heating oil specification, to explicitly exclude any blending of raw vegetable oil as it was found to cause rapid and severe fouling of heating oil burners even when present at a low level.

Non-viscous renewable diesel

The definition of “non-viscous renewable fuel”, as currently proposed, requires diesel produced from co-processing to meet ASTM D975 without subsequent blending at the production facility. Typically, both gasoline and diesel fuel are produced at petroleum refineries by the blending of hydrocarbon components to meet applicable ASTM specifications and EPA and state requirements. It is fairly typical that the hydrocarbon components by themselves do not meet ASTM specifications, but the final product does so after the blending process. EPA's proposed definition of “non-viscous renewable fuel” would treat that renewable feedstock differently than hydrocarbon feedstocks thereby unnecessarily restricting the use of that component. API/AFPM suggest a revision to the definition of that
term which we believe preserves the integrity of the RIN generation process, levels the playing field for renewable fuels, and would increase the availability of renewable diesel.

API and AFPM suggest the following changes to the proposed definitions of “viscous renewable diesel” and “non-viscous renewable diesel” (page 80928 of the proposal):

**Non-ester renewable diesel**, also known as renewable diesel, is either viscous or non-viscous renewable diesel:

(1) **Non-viscous renewable** diesel satisfies all of the following conditions:
   
   (i) Is not a mono-alkyl ester.
   
   (ii) Is produced by processing renewable biomass, or co-processing renewable biomass and non-renewable feedstocks, through a hydrotreating process. Meets the ASTM D975–13a (incorporated by reference, see § 80.1468) Grade No. 1–D or No. 2–D specifications prior to blending with any other product.

   (iii) Either in its neat form or combined with other blendstocks prior to shipment from its production facility, (a) meets the ASTM D975-13a (incorporated by reference, see §80.1468) Grade No. 1-D or No. 2-D specifications, or (b) meets all specifications incorporated in a non-viscous renewable diesel’s registration under 40 CFR part 79.

   (iv) In its neat or combined form, can be used in an engine designed to operate on conventional diesel fuel.

   (iv) Is produced through a hydrotreating process.

(2) **Viscous renewable diesel (VRD)** satisfies all of the following:

   (i) Is not a mono-alkyl ester.

   (ii) Is a straight vegetable oil

   (iii) Is intended for use as one of the following:

   (A) A blend in an engine designed to operate on conventional diesel fuel (referred to as VRD for blending or VRD–B).

   (B) A neat fuel for use either: In a vehicle or engine that has been converted to use such fuel under an EPA-approved Clean Alternative Fuel Conversion under 40 CFR part 85, subpart F; as heating oil; or as jet fuel (collectively referred to as VRD for neat use or VRD–N).

**Viscous renewable diesel blender or VRD blender** means a party that blends VRD–B with petroleum diesel to produce fuel that meets the specifications of ASTM D975 Grade No. 1–D or No. 2–D (incorporated by reference, see § 80.1468):

5. **Confidential Business Information (CBI)/RFS: Public Access to Information**

EPA is proposing regulations that would streamline the processing of claims that RFS-related information should be withheld from public disclosure under the Freedom of Information Act (FOIA), 5 U.S.C. § 552(b)(4), as CBI. If finalized, the rules would identify the RFS information that would receive confidential treatment and the information that would be available for disclosure in response to a FOIA request without the need for the often time-consuming
notice and substantiation procedural requirements that would otherwise be required under 40 CFR Part 2, subpart B.\textsuperscript{13}

We support specifying what RIN transactional information and RFS compliance information that is submitted through EMTS is entitled to treatment of CBI. With respect to the buy, sell, separate, and retire transactions, there are a number of fields identified that are system files that appear to be generated by EMTS, typically identified as system 1 through system 9 or 10. Consistent with the March 27, 2015 FOIA findings, we understand that those fields contain no data identifying the company or its personnel. While the field relating to Data Preparer is not currently identified as CBI, if that field or the other system generated fields do, in fact, contain information that could lead to the identification of the submitting company or its personnel, we request that those fields be treated as Confidential Business Information.

6. RIN Retirement

We support EPA’s proposal for collecting information and placing it in one place within the regulation. EPA should ensure all required RIN retirement scenarios are included in the proposed new section of the regulation. We support the provisions for redesignation of renewable fuel on a PTD for non-qualifying uses, except that the proposed language in RIN Retirement Section 80.1434(a)(3) needs further clarification and is inconsistent with the language proposed in 80.1433. The requirement for RIN retirement should apply regardless of whether the renewable fuel was received with RINs. 80.1434(a)(3) states that only RINs received with the fuel need to be retired, in contradiction with proposed language in 80.1433.

7. Employment

EPA proposes the following at 80.1471: \textsuperscript{14}

\begin{quote}
(12) The independent third-party auditor and its contractors and subcontractors shall ensure that all personnel involved in the third-party audit (including the verification activities) under this section do not accept future employment with the owner or operator of the renewable fuel producer, foreign ethanol producer, or biointermediate producer for a period of at least three years. For purposes of this requirement, employment does not include performing or participating in the third-party audit (including the verification activities) pursuant to §80.1472.
\end{quote}

The intent of this restriction is understandable, but the proposed regulatory language is unclear and unworkable. There is no way for an auditing company to control or even know what a former employee does after he/she resigns. Perhaps, the requirement should be placed on the biofuel producer, who could be prohibited from hiring an individual that audited the company for a period of three years following the audit.

Also note that both AFPM and API oppose the requirement to use 3\textsuperscript{rd} party auditors in the RMP rule.

\textsuperscript{13} 81 Fed. Reg. 80909
\textsuperscript{14} 81 FR 80952
8. EPA Must Close the Biodiesel Loophole for RIN Separation

RIN fraud remains pervasive. AFPM and API continue to support regulatory changes suggested in 2013 comments on EPA’s QAP proposal (pp 12-13 of comments):

One of the primary reasons that fraud occurred was that only one party (i.e., the biodiesel producer) was involved in the generation, separation, and sale of RINs. Including independent third parties in the transaction creates a powerful deterrent to fraud.

AFPM and API support an RFS regulatory amendment that prohibits biodiesel producers from separating RINs. As part of a Final Rule, EPA should revise 40 CFR § 80.1429 to make clear that a biodiesel producer may not separate RINs unless that biodiesel producer also is an obligated party and then only to the extent that the quantity of RINs separated is less than or equal to its RVO under the RFS. Currently, RFS allows RIN separation in the isolated cases where neat biodiesel is used in transportation. In the marketplace, this scenario is extremely rare, yet the separation provision is widely exercised and has been abused. AFPM and API opposed allowing biofuel producers to separate RINs in the RFS1 and RFS2 regulatory proposals. In the known cases of invalid RINs, biodiesel producers generated RINs on biodiesel that was not produced, separated those RINs, and sold them into the marketplace. Preventing biodiesel producers from separating RINs would have prevented the 140 million fraudulent biodiesel RINs and will eliminate this avenue for invalid RINs in the future.

In the RFS2 regulations, 40 CFR 80.1429(b)(4) allows a biomass-based diesel producer to separate RINs for neat fuels that are designated and used as transportation fuel, heating oil, or jet fuel. Allowing biodiesel producers to separate RINs removes a significant protection against the creation of RINs that have no corresponding link to “wet gallons” of biodiesel. In the known cases of invalid RINs, biodiesel producers generated RINs without actually producing any physical biodiesel and sold the RINs into the marketplace. The RIN purchasers did not suspect the fraudulent generation of the RINs due to the fact that biodiesel producers are allowed to separate RINs and sell them apart from the physical volume of biodiesel and because the RINs were generated by an EPA-registered biofuel producer. Preventing biodiesel producers from separating RINs will eliminate this avenue for fraud.

In the Preamble to the RFS 1 regulation, EPA stated: “Our program basically requires RINs to be transferred with renewable fuel until the point at which the renewable fuel is purchased by an obligated party or is blended into gasoline or diesel fuel by a blender.” EPA needs to return to this principle in the case of biomass-based diesel RINs.

There is no harm from requiring the biodiesel RIN to remain attached to the biodiesel gallon until the biodiesel is acquired by an obligated party, blended at a 20% or lower ratio with diesel fuel or consumed in an approved manner.
In the extremely rare case where biodiesel is actually used as a neat fuel, the RIN should only be separated by an independent party downstream from the original producer. By requiring all biodiesel RINs to remain attached when sold by the producer, EPA can provide the RIN marketplace with additional confidence that the biodiesel associated with the RIN was actually produced, distributed and used.

To implement this significant risk reduction measure, we suggest the following modifications to 40 CFR § 80.1429(b)(4):

(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 was designated by the producer or any party downstream of the producer 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.

9. Other Compliance Issues

   a) E15 Misfueling Mitigation Harmonization:

   Proposed changes to E15 PTDs should be harmonized with PTD provisions in Tier 3 gasoline sulfur program and incorporate new language to help EFF blender pump-refiners comply with EFF requirements.

   b) Flexibilities for Renewable Fuel Blending for Military Use

   We agree with the proposal to allow delegation of RFS related responsibilities to upstream parties for military applications, as this is consistent with other existing provisions (i.e. delegation allowances for small renewable fuel blenders).

   c) Heating Oil Used for Cooling

   We believe that amending the definition of heating oil to include cooling applications is appropriate and consistent with CAA section 211(o) requirements.

   d) CCS Implementation Under the RFS

   Based on the data provided in EPA’s memorandum EPA-HQ-OAR-2016-0041, the LCA for sorghum ethanol did not include the carbon footprint of chemicals used at the biorefinery. We suggest that EPA publish these data on the chemicals used (type and amounts) at the sorghum ethanol biorefinery and include their individual carbon footprints in the LCA calculation. Then they can compare the LCA footprint of “sorghum ethanol coupled with CCS” to that of gasoline, in order to determine if sorghum ethanol with CCS meets the “advanced biofuel” threshold or not.
In the proposal, EPA notes that if a renewable fuel producer fails to notify EPA of a surface leak and fails to comply with the potentially invalid RIN administrative procedures, the renewable fuel producer will be deemed to have failed to take corrective action and “all RINs generated under the CCS pathway during the five years preceding the leak could be considered invalid.” (p. 80883 of the Federal Register, emphasis added.) Invalidating five years of RINs is a severe consequence and places obligated parties at risk of having used invalid RINs for compliance purposes. This seems particularly unfair to obligated parties who would have no access to knowing or monitoring whether surface leaks were occurring. If such is the consequence, renewable fuel producers using CCS should be required to either verify all RINs as Q-RINs under the QAP or establish escrows or similar accounts for replacing RINs found to be invalid so as to protect the due process rights of obligated parties.

e) Renewable Fuels Produced From Short-Rotation Trees

• For poplar, EPA cites a yield range of 2.0 – 5.8 dry tons/acre/yr, but claims that their estimate of 4.57 is “on the lower end of the range”. EPA should use a median value.

• For willow, the dry content estimate of 66.7% is at odds with the 55% cited. If the lower figure was used in combination with the EPA wet yield estimate, the dry matter yield would be only 5.47 x 55% = 3.00 dry tons/acre/yr instead of 3.65. EPA is underestimating the GHG emissions and should use consistent estimates.

• Diesel fuel use for poplar cited as 6 – 10 lbs/acre. This appears to be a typo and should be 6 – 10 gals/acre. For willow, the range is 5 – 17 gal/acre. EPA’s estimates are below or at the low end of the cited ranges at 4.8 and 7.7 gal/acre for poplar and willow respectively. EPA should use a median value.

• Nitrogen fertilizer requirements for poplar seems to be based on data for willow; EPA should ensure the appropriate inputs are used.

• There are significant differences with the GREET paper regarding feedstock production in the docket. In general, GREET has lower energy requirements and higher crop yields than does the rulemaking, and we recommend using the GREET value.

f) Oxygenate Added Downstream in Tier 3

API and AFPM support the clarification of expectations for downstream oxygenate blending with respect to sulfur compliance.

EPA included clarifications related to sulfur compliance when including oxygenate blended downstream of the refinery. EPA also asked for comments on whether it should adopt similar provisions for the gasoline benzene program. EPA should adopt similar provisions – specifically, establishing a default value for the benzene content of DFE. Sampling the ethanol at the terminals is burdensome, so having a reasonable default value for DFE benzene content would be more practical when including downstream oxygenate into the refinery’s compliance calculations.

10. Test method Revisions and Comments
a) EPA proposes ASTM D2622 to be the designated method for sulfur in EFF and is proposing to allow D1266, D3120, D5453, D6920, D7220, and D7039 as alternative test methods provided that their test results are correlated to D2622.

API and AFPM have concerns about the suitability of ASTM D2622 for measuring the sulfur content of EFF. We also note that ASTM D1266 and ASTM D3120 are relatively outdated methods. If D2622 is the designated method, then users should ensure that their analytical method has accounted for the interference from the high ethanol (oxygen) content in the fuel.

b) EPA seeks comment about whether to designate ASTM D5769 as a test method for measuring the benzene content of EFF.

API and AFPM support EPA’s proposal to designate ASTM D5769 for measuring the benzene content of EFF. ASTM D3606 should not be included as an additional designated method for measuring EFF, nor should ASTM D3606 be allowed as an alternative test method because of interference issues. In addition, we support including ASTM D5580 as a co-designated method with ASTM D5769. ASTM D580 is a simpler method to maintain and run, and many laboratories may already be using ASTM D5580. Co-designating ASTM D5580 is also consistent with EPA efforts to avoid imposing an undue burden on the industry. We also support the use of ASTM D6730 as an alternative method.

c) EPA proposes to designate ASTM D5599 as the test method for measuring oxygenates in EFF and proposes to allow ASTM D4815 as an alternative method provided its results are correlated to ASTM D5599. API and AFPM oppose EPA’s proposal to (a) establish ASTM D5599 as the designated primary test method for measuring the oxygenate content of EFF, and (b) allow ASTM D4815 as an alternative test method in this regard. The maximum range of the scope for the D4815 test method is 12% by volume ethanol and it does not allow for dilution. The maximum range of the scope for ASTM D5599 is 10% by volume ethanol. Therefore, neither of these methods are applicable for measuring the oxygenate content of EFF.

d) EPA seeks comment on whether PBMS should be applied to the test methods for EFF. The Agency also mentions wanting accuracy and precision criteria being developed for the EFF test methods.

“...The EPA is also taking comment on whether we should establish Performance-Based Analytical Test Method Approach (PBATMA) requirements for the parameters of sulfur, benzene, distillation point, oxygenate content, and RVP in EFF and natural gasoline EFF blendstock. The EPA envisions that sulfur would fall under the absolute fuel parameter category for PBATMA where the precision criteria157 and accuracy criteria158 would be the same as for sulfur in gasoline.159 The EPA envisions the fuel parameters of benzene, T90 distillation point, oxygenate content, and RVP would fall under the method defined fuel parameter category for PBATMA.160 Under the method defined fuel parameter PBATMA requirements, the EPA envisions that the precision criteria would be the same as for each of these respective fuel parameters in gasoline.161 The EPA envisions that the accuracy criteria would be addressed by ASTM
D6708 assessments to determine the need for a correction equation. The EPA envisions following the same approval process for EFF as for gasoline; that is, voluntary consensus standard body (VCSB) test methods self-qualify to regulatory criteria and non-VCSB test methods submit required information to the EPA for approval. Finally the EPA envisions that the EFF and natural gasoline EFF blendstock statistical quality control (SQC) PBATMA requirements for accuracy and precision would mirror what was finalized for PBAMTA for motor vehicle gasoline and diesel fuel. The EPA is interested in comments on whether the test methods discussed here sufficiently address EFF and natural gasoline EFF blendstock in their precision statement in order to establish PBATMA accuracy and precision criteria as discussed above for the fuel parameters of sulfur, benzene, distillation point, oxygenate content, and RVP.

API and AFPM believe that PBMS requirements should not be developed for EFF test methods. Data for materials with high ethanol concentrations do not exist to develop D6708 assessments for alternative test methods. In particular, there are no existing data available to develop accuracy and precision criteria for the applicable test methods.

In Section IX of the proposal, EPA proposes to remove the October 28, 2013 sunset date for exempting designated primary test methods from meeting the accuracy and precision requirements of 4 CFR 8.47. API and AFPM support EPA’s proposal to remove the sunset date for the designated test methods.

e) EPA proposes to add accuracy and precision criteria for sulfur in pentane in 40 CFR 80.47(b) that are identical to sulfur in gasoline

We note that there is no relevant ASTM method for analyzing sulfur in pentane. Hence, there is insufficient information to support EPA’s statement that the gasoline method “may be adaptable” to pentane. Additional data and analyses are needed. Consequently, API and AFPM oppose EPA’s proposal to add accuracy and precision criteria for sulfur in pentane in 40 CFR 80.47(b) that are identical to sulfur in gasoline.

f) EPA proposes to include ASTM D5769 as a designated method for benzene in gasoline, in addition to the current designated ASTM D3606 test method codified at 40 CFR 80.46(e).

API and AFPM agree that ASTM D5769 and D3606 should both be established as designated methods for benzene in gasoline.

g) Other Technical Comments to EPA’s Proposed Test Method Revisions in 40 CFR 80.46 and 80.47

1. The proposed regulatory text for 80.46(f) (at 81 FR 80922) contains a typographical error. “Olefin” should be replaced with “Aromatic.”

2. The new language at 80.47(b)(2)(i) & (ii) and 80.47(c)(2)(i) & (ii) is confusing. For example, proposed 80.47(b)(2)(i) & (ii) reads:
(i) The arithmetic average of a continuous series of at least 10 tests performed using good laboratory practices on a commercially available gravimetric sulfur standard in the range of 1–10 ppm shall not differ from the accepted reference value (ARV) of the standard by more than 0.47 ppm sulfur, where the accuracy criteria is $0.75 \times (1.5 \times r / 2.77)$, where “$r$” is the repeatability (Example: $0.75 \times (1.5 \times 1.15 \text{ppm} / 2.77) = 0.47 \text{ppm}$);

(ii) The arithmetic average of a continuous series of at least 10 tests performed using good laboratory practices on a commercially available gravimetric sulfur standard in the range of 10–20 ppm shall not differ from the ARV of the standard by more than 0.94 ppm sulfur, where the accuracy criteria is $0.75 \times (1.5 \times r / 2.77)$, where “$r$” is the repeatability (Example: $0.75 \times (1.5 \times 2.30 \text{ppm} / 2.77) = 0.94 \text{ppm}$); and

Please clarify whether labs should use the discrete value or the calculation based off the repeatability for ARV of the reference standard?

3. In 80.47(n)(1)(i), EPA states that the facility must construct “MR” and “I” charts with control lines as described in section 8.4 of ASTM D6299. Per section 8.4, 20 points are needed to set up I and MR charts. This is difficult if using the round robin for accuracy, and may not be necessary if the accuracy is bound by 0.75R and expanded uncertainty.

4. With respect to 80.47(n)(1)(ii) and 80.47(o)(1)(ii), EPA has not provided instruction on how expanded uncertainty is to be used. What is the significance of calculating this value?

5. Proposed 80.47(o)(1)(i) states:

Accuracy SQC. Every facility shall conduct tests of every instrument with a commercially available check standard as defined in ASTM D6299 at least three times a year using good laboratory practices. The check standard must be an ordinary fuel with levels of the fuel parameter of interest close to either the applicable regulatory standard or the average level of use for the facility. For facilities using a VCSB designated method defined test method, the ARV of the check standard must be determined by the respective designated test method for the fuel parameter following the guidelines of ASTM D6299. Facilities using a VCSB alternative method defined test method must use the ARV of the check standard as determined in a VCSB Inter Laboratory Crosscheck Program (ILCP) or a commercially available ILCP following the guidelines of ASTM D6299. If the ARV is not provided in the ILCP, accuracy must be assessed based upon the respective EPA-designated test method using appropriate production samples. The facility must construct “MR” and “I” charts with control lines as described in section 8.4 and appropriate Annex sections of this standard practice. In circumstances where the absolute difference between test results and the ARV of the check standard
based on the designated primary test method is greater than 0.75 times the published reproducibility of the designated primary test method, the cause of such difference must be investigated by the facility. Participation in a VCSB ILCP or a commercially available ILCP meeting the ASTM D6299 requirements for ILCP check standards, based on the designated primary test method, at least three times a year, and, meeting the requirements in this section for absolute differences between the test results and the ARV of the check standard based on the designated primary test method of less than 0.75 times the published reproducibility of the designated primary test method obtained through participation in the ILCP satisfies this Accuracy SQC requirement (Examples of VCSB ILCPs: ASTM Reformulated Gasoline ILCP or ASTM motor gasoline ILCP).

The above paragraph gives conflicting instruction. The ARV is to be established by the ILCP of the alternative test method, if available, but users must determine compliance using control charts with ARVs from the designated method. Please clarify.

6. Accuracy requirements for sections on sulfur accuracy (n)(1)(i) and non-VCSB accuracy (p)(1)(i) and (p)(2)(i), require the “mean of back-to-back tests” to be within 0.75R, but this section has changed to be the “absolute difference” of 0.75R. This is inconsistent, and the additional restriction is not necessary.

11. RVP
   a. RVP Waiver for E15

API and AFPM do not support EPA extending the 1 psi RVP waiver for E15. This was not proposed by EPA, but it was raised at the Public Hearing in Chicago on December 6, 2016. It is not lawful to provide a 1 psi waiver for summer E15. We also oppose the suggestion by autos that EPA increase stringency of all gasoline to offset ethanol RVP.

We support the compliance requirements proposed by EPA:
   • Sept – May: PTDs that the parent blends used to make E15 (E0, E10, EFF) were certified for sale upstream of the blender pump-refiner.
   • June -Sept. 15: PTDs of certified parent blends; for conventional areas where 1 psi waiver for E10 applies, E15 cannot be made from E10 at the blender pump and cannot be made from E0 with EFF
   • participate in an EPA-approved EFF quality assurance survey

b. Pump Label

Retail gasoline stations may be confused regarding E15 pump labeling and summer RVP requirements. EPA promulgated pump label regulations in 2011 when E15 is sold at retail. EPA’s required pump label applies all year and is not seasonal (e.g., one for the winter and a different label for the summer) and cannot be altered without prior EPA’s permission.
We strongly support EPA’s reminder in this proposal. The Agency stated that summer RVP cannot be circumvented by relabeling; “intended use” on a pump label does not exempt E15 from fuel quality requirements (see 81 FR 80863):

All gasoline, including E15, is subject to all of the requirements applicable to gasoline because of its formulation, not because of its end use. These requirements cannot be circumvented by relabeling. Allowing a fuel to be exempted from fuel quality requirements simply based on a statement of its intended use would undermine the EPA’s ability to assure compliance with fuel quality requirements.

Thank you for the opportunity to comment on this proposal. If you have any questions regarding these comments, please call Patrick Kelly, API at (202) 682-8192 or Tim Hogan, AFPM at (202) 552-8462.