

February 16, 2017

Attention: Docket ID No. EPA-HQ-OAR-2016-0041

Catherine McCabe
Administrator (Acting)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Re: Comments of the Renewable Fuels Association on *Renewables Enhancement and Growth Support Rule*; Proposed Rule (81 Fed. Reg. 80828; November 16, 2016)

Dear Ms. McCabe,

The Renewable Fuels Association (RFA) appreciates the opportunity to provide comment on the Renewables Enhancement and Growth Support (REGS) Proposed Rule (EPA-HQ-OAR-2016-0041; 81 Fed. Reg. 80828).

RFA is the leading trade association for America's ethanol industry. Its mission is to advance the development, production, and use of fuel ethanol by strengthening America's renewable fuels industry and raising awareness about the benefits of renewable energy. Founded in 1981, RFA serves as the premier meeting ground for industry leaders and supporters. RFA's 300-plus members are working to help America become cleaner, safer, more energy secure, and economically vibrant.

EPA states that the underlying purpose of the REGS rulemaking is to "...continue the progress made in promoting the use of renewable fuels..." and to "...take steps to remove potential barriers to their production, distribution, and consumption where such actions make sense."¹ RFA fundamentally and steadfastly supports these goals.

However, we do not believe the REGS rule, if finalized as proposed, will by itself accomplish the desired outcome of promoting renewable fuels expansion and eliminating marketplace and regulatory barriers. While well-intentioned, the REGS rule does not adequately address the key regulatory barriers that are significantly limiting growth in renewable fuel production and use. In fact, we are concerned some elements of the REGS proposal may actually serve to add complexity and create *new barriers* to renewable fuel market expansion, an effect that would be the opposite of the rule's stated purpose. While the proposal does "resolv[e] the ambiguity"² surrounding regulation of certain ethanol blends like E16-E50, it largely overlooks the actions required to truly support and promote an expanded role for renewable fuels in the marketplace.

¹ 81 Fed. Reg. 80829

² 81 Fed. Reg. 80844

Thus, we encourage EPA to earnestly reevaluate whether the REGS rule, as proposed, genuinely promotes renewable fuels or removes barriers to their production, distribution and use. In lieu of proceeding with the current REGS proposal, we believe EPA should reconsider the proposal and initiate a far more comprehensive process to reform existing fuel regulations in a way that levels the playing field for renewable fuels and genuinely removes regulatory barriers to growth.

The first section of our attached comments offers detailed recommendations for regulatory actions EPA could take to truly eliminate barriers and promote growth in renewable fuel production and use. These include:

- Establishing regulatory parity in the volatility limits for all fuel blends containing more than 9% ethanol by volume;
- Streamlining and harmonizing survey programs intended to monitor and verify fuel quality and regulatory compliance;
- Simplifying the petition process for new certification fuels and eliminating unreasonable criteria for approval;
- Eliminating unnecessarily burdensome and costly requirements related to the fuel and fuel additive registration process;
- Updating the “R-factor” for fuel economy (CAFE) compliance calculations to better represent modern engines and fuels;
- Leveling the playing field for all alternative fuel vehicles, including flexible fuel vehicles (FFV), under the fuel economy and light-duty vehicle greenhouse gas program;
- Rejecting the results of the EPA/V2/E-89 Fuel Effects Study and suspending further use or development of the MOVES2014 model until a new emissions study based on appropriate test fuels is conducted; and
- Updating the lifecycle greenhouse gas (GHG) analysis of corn ethanol conducted for RFS2.

The second section of our attached comments responds to specific provisions of the REGS proposal. These comments are intended to provide our views about the practical impacts of the REGS proposal and recommendations on how to improve certain provisions, in the inadvisable event EPA elects to move forward with the currently proposed REGS rulemaking.

Thank you for the opportunity to comment on the REGS proposal. We look forward to working with EPA on regulatory initiatives that truly promote an expanded role for renewable fuels in our nation’s transportation fuel market and remove barriers to increased production and use.

Sincerely,

A handwritten signature in black ink that reads "Bob Dinneen". The signature is stylized and includes a long horizontal flourish extending to the right.

Bob Dinneen
President & CEO

COMMENTS OF
THE RENEWABLE FUELS ASSOCIATION

**RENEWABLES ENHANCEMENT AND GROWTH SUPPORT RULE;
PROPOSED RULE, 81 FED. REG. 80828 (NOVEMBER 16, 2016)**

DOCKET ID
EPA-HQ-OAR-2016-0041

The Renewable Fuels Association (RFA) provides the following comments on the Renewables Enhancement and Growth Support (REGS) Proposed Rule. RFA has structured these comments in a manner that first addresses the need for a comprehensive approach to reforming fuel regulations, and secondly offers input regarding certain provisions of the REGS proposal.

The first section of our comments offers detailed recommendations for regulatory actions EPA could take to truly eliminate barriers and promote growth in renewable fuel production and use. Many of these recommendations involve commonsense reforms to existing regulations that create unnecessary barriers to expansion in renewable fuel use without delivering any corresponding environmental benefit.

The second section provides comments in response to specific provisions of the REGS proposal. These comments are intended to provide our views about the practical impacts of the REGS proposal and recommendations on how to improve certain provisions, should EPA elect to move forward with the current REGS rulemaking.

I. ADMINISTRATIVE ACTIONS U.S. EPA SHOULD TAKE TO TRULY REMOVE BARRIERS TO EXPANDED PRODUCTION AND USE OF RENEWABLE FUELS

EPA suggests that the regulatory changes outlined in the REGS proposal will "...provide the opportunity for increasing the production and use of renewable fuels by allowing the market to operate in the most efficient and economical way to introduce greater volumes of renewable fuels..."¹ The Agency further notes that the overarching purpose of the proposed amendments outlined is "...to continue the progress made in promoting the use of renewable fuels in the transportation sector..." and to "...take steps to remove potential barriers to their production, distribution, and consumption..."² While the proposal does provide some measure of clarity regarding EPA's planned approach to regulating certain ethanol blends (i.e., E16-E50), we do not believe the REGS rule by itself would facilitate increased production and use of renewable fuels. In fact, some of the proposal's provisions could actually create new barriers to expanded production and consumption of renewable fuels. In order to truly stimulate growth in the renewable fuels marketplace and remove barriers to increased production and use, we recommend EPA take the administrative actions described below.

¹ U.S. EPA. "Proposed Renewables Enhancement and Growth Support (REGS) Rule, Rule Summary." <https://www.epa.gov/renewable-fuel-standard-program/proposed-renewables-enhancement-and-growth-support-regs-rule>.

² 81 Fed. Reg. 80829

a. Establish regulatory parity in the volatility limits for all fuel blends containing 9% ethanol by volume or more.

EPA's disparate volatility limits for various ethanol blends during the summer ozone control season continue to serve as the single largest impediment to growth in renewable fuel consumption. The maximum volatility limit for gasoline during the high ozone season was established at 9.0 pounds per square inch (psi) Reid Vapor Pressure (RVP), with EPA having the authority to set more stringent limits under certain circumstances (e.g., for non-attainment areas). However, in a 1987 rulemaking, EPA allowed blends containing a *minimum* of 10% ethanol to exceed RVP limits by 1.0 psi.³ In 1989, EPA provided an interim RVP allowance that was 1.0 psi higher "for gasoline-ethanol blends commonly known as gasohol."⁴ EPA explained that "[s]uch blends must contain *at least* 9% ethanol (by volume) and their maximum ethanol content may not exceed any applicable waiver conditions under section 211(f)(4)."⁵ In a later rulemaking, EPA asserted that the 1.0 psi waiver only applies to blends containing "between 9 and 10 per cent ethanol (by volume)."⁶ The 1.0 psi RVP waiver effectively raised the maximum RVP limit for E10 to 10.0 psi in "conventional gasoline" areas where more restrictive RVP limits did not apply.

According to EPA, the purpose of the original 1.0 psi waiver provision was "to facilitate the participation of ethanol in the transportation fuel industry while also limiting gasoline volatility resulting from ethanol blending."⁷ It was also recognized that "...gasoline and ethanol are mixed after the refining process has been completed. ... [T]o require ethanol to meet a nine pound RVP would require the creation of a production and distribution network for sub-nine pound RVP gasoline. The cost of producing and distributing this type of fuel would be prohibitive to the petroleum industry and would likely result in the termination of the availability of ethanol in the marketplace."⁸ The same conditions that led EPA to provide the original 1.0-psi interim RVP waiver in 1989 (i.e., the need to facilitate ethanol's participation in the marketplace and a lack of appropriate sub-RVP gasoline blendstock) were again present when the Agency approved E15 blends for use in MY2001 and newer vehicles in 2011. Yet, this time EPA failed to extend the 1.0-psi waiver to E15, meaning the fuel is subject to a 9.0 psi RVP maximum in conventional gasoline markets during the summer ozone control season while the RVP limit for E10 remains at 10.0 psi.

This disparity in RVP limits for E10 and E15 has been a substantial barrier to growth in renewable fuel consumption. Retailers who have chosen not to offer E15 consistently cite EPA's unbalanced application of the 1.0-psi waiver as the primary factor in their decision. Meanwhile, retail gas stations in conventional gasoline areas that have made the investment to offer E15 are faced with

³ 52 Fed. Reg. 31305

⁴ 54 Fed. Reg. 11868, 11879 (emphasis added)

⁵ 52 Fed. Reg. 31274, 31305 (emphasis added)

⁶ 56 Fed. Reg. 64704, 64708

⁷ U.S. EPA. June 2011. "Regulation to Mitigate the Misfueling of Vehicles and Engines with Gasoline Containing Greater Than Ten Volume Percent Ethanol and Modification to the Reformulated and Conventional Gasoline Programs, Summary of Public Comments and Supplemental Response to Comments," at 82.

⁸ S. Rep. No. 101-228, at 110 (1989)(Conf. Rep.); reprinted at 5 Leg. Hist. at 8450 (1993).

a hopeless decision every spring: stop selling E15 during the summer volatility control season, or secure the appropriate low-RVP gasoline blendstock. For most retailers, neither of these options are economically acceptable business decisions. Beginning with a letter to former Administrator Lisa Jackson in 2010, RFA has repeatedly asked that EPA remove this arcane barrier to renewable fuel expansion and we have proposed several potential solutions to this dilemma.⁹ We again call upon EPA to act immediately on one of these pathways to resolve this barrier.

i. Apply the existing 1.0-psi Reid Vapor Pressure (RVP) volatility waiver for E10 (9-10% ethanol by volume) to all fuel blends containing more than 9% ethanol by volume.

While the REGS proposal offers some clarity on the regulation of volatility for E16-E50 flex fuel blends, it does not resolve in any way the RVP barrier for E15. In order to facilitate achievement of the overarching goal of the REGS proposal (i.e., to “...remove potential barriers” to the “production, distribution, and consumption” of renewable fuels), we again call on EPA to apply the 1.0-psi RVP waiver to all blends containing more than 9% ethanol. We believe EPA can and should utilize the same rationale and regulatory authority it used in 1987 to allow blends containing “a minimum of 10% ethanol” to exceed RVP limits by 1.0 psi and again in 1989 to grant the interim 1.0-psi waiver.

As explained in correspondence with the Agency on this matter over the past seven years, we continue to believe EPA has the administrative authority and interpretative latitude to revise its CAA 211(f) waiver approval for E15 and its understanding of the CAA 211(h) “deemed compliant” provision to apply the 1.0-psi waiver to all blends containing more than 9% ethanol. Rather than rehash all the legal arguments supporting the application of the 1.0-psi waiver to blends above E10, we incorporate by reference our previous comments and correspondence on this matter and encourage EPA to undertake a thorough and earnest review of this material and comments from other stakeholders.¹⁰

ii. Alternatively, EPA could promulgate rules requiring a 1.0-psi reduction in the maximum allowable RVP of conventional gasoline blendstock during the summer ozone control season.

⁹ Robert Dinneen, President & CEO, Renewable Fuels Association to the Honorable Lisa Jackson, Administrator, U.S. Environmental Protection Agency. May 14, 2010. Available at: <http://ethanolrfa.org/wp-content/uploads/2015/09/RFA-Letter-to-Jackson-re-E15-and-RVP-5-14-10.pdf>

¹⁰ *Id.*, and Robert Dinneen, President & CEO, Renewable Fuels Association to the Honorable Lisa P. Jackson, Administrator, U.S. Environmental Protection Agency. March 27, 2012. Available at: <http://www.ethanolrfa.org/wp-content/uploads/2015/10/RFA-Letter-to-EPA-Administrator-Jackson-on-E15-and-RVP.pdf>; Robert Dinneen, President & CEO, Renewable Fuels Association to the Honorable Gina McCarthy, Administrator, U.S. Environmental Protection Agency. September 5, 2014. Available at: <http://bff.738.myftpupload.com/wp-content/uploads/2015/09/RFA-Letter-to-EPA-on-Fuel-Volatility-Regulations-and-E15.pdf>; Comment submitted by Bob Dinneen, President & CEO, Renewable Fuels Association re: Proposed Rule: Regulation to Mitigate the Misfueling of Vehicles and Engines with Gasoline Containing Greater than Ten Volume Percent Ethanol and Modification to the Reformulated and Conventional Gasoline Programs. Jan. 3, 2011. (EPA-HQ-OAR-2010-0448-0088)

While we continue to believe EPA has the authority to extend the existing 1.0-psi waiver to all blends containing more than 9% ethanol, alternative approaches to resolving this barrier have also been suggested. One such alternative solution proposed by both RFA and the Auto Alliance, which is cited in the REGS proposal, would be to universally reduce the maximum allowable volatility of all conventional gasoline blendstock by 1.0 psi during the summer RVP control season (i.e., limit the volatility of CBOB gasoline blendstock to 8.0 psi).¹¹ This would effectively render the 1.0 psi waiver irrelevant and put all ethanol blends on evening footing.

b. Streamline and harmonize survey programs intended to monitor and verify fuel quality and regulatory compliance.

As part of the REGS rulemaking, EPA proposes creation of an ethanol flex fuel quality survey to verify compliance and “check against potential fraud and abuse.”¹² Our specific comments on the proposed EFF survey are presented in the second section of these comments. The proposed EFF verification program would add yet another new survey requirement to a growing list of mandatory compliance and quality surveys to which fuel producers and distributors are subject. We understand the need to monitor and verify compliance with EPA fuel regulations. However, we believe existing and newly proposed fuel survey programs could be simplified and harmonized in a manner that improves transparency, greatly reduces cost, and eases administrative burdens for all participants.

There is currently a significant amount of overlap and inefficiency in EPA’s fuel survey programs. For example, a single retail station may be visited multiple times throughout the year by different surveyors seeking information and fuel samples for different EPA fuel survey programs (e.g., E15 survey, RFG survey, ULSD survey, etc.). Each unique site visit and each unique fuel sample adds cost to these programs, with fuel producers and distributors bearing this financial burden. It would be far more cost effective to combine management of the fuel surveys such that the information and samples required by each of the different survey programs can be obtained during a single site visit. The costs associated with a harmonized compliance survey program would be much lower than the costs currently borne by fuel producers, distributors and retailers. In addition, the costs of these survey programs should be divided appropriately amongst fuel market participants based on fuel volumes produced (e.g., it is unreasonable for fuel ethanol producers to bear the majority of the cost for the E15 survey, when the program is primarily collecting compliance information more pertinent to E10 gasoline refiners and blenders).

Further, the survey programs should be revised so that surveyors are soliciting and receiving *only the information needed to verify compliance* with EPA fuel regulations. For example, the overwhelming majority (90%+) of fuel samples collected for the E15 compliance survey are, in fact, samples of E10—not E15. Thus, most of the information acquired via the E15 fuel survey has little or no relevance to verifying compliance with the E15 misfueling mitigation plan.

¹¹ Robert Dinneen, President & CEO, Renewable Fuels Association to the Christopher Grundler, Director, Office of Transportation and Air Quality, U.S. Environmental Protection Agency. December 8, 2015. Available at: http://www.ethanolrfa.org/wp-content/uploads/2016/01/Request-for-EPA-Action-to-Reduce-RVP-Cap-of-Summer-Conventional-Gasoline_RFA_2015-12-08.pdf

¹² 81 Fed. Reg. 80843

Moreover, the information required to verify compliance is often readily available in records (e.g., product transfer documents, invoices, etc.) maintained by fuel producers, distributors and retailers. This means physical fuel sampling is often unnecessary and adds needless cost and administrative burden to these survey programs. EPA should use recordkeeping audits to demonstrate compliance in lieu of costly fuel sampling whenever possible.

In summary, we strongly encourage EPA to streamline and harmonize its fuel survey programs, including any new EFF survey requirements that may arise out of the REGS rulemaking.

c. Simplify the petition process for new certification fuels and eliminate unreasonable criteria for approval.

EPA's Tier 3 Motor Vehicle Emission and Fuel Standards included provisions allowing engine manufacturers to petition the Agency for approval of an alternative certification fuel, including fuels with "higher octane [and] higher ethanol content" than the prescribed test fuel.¹³ While we strongly support a petition process for alternative certification fuels, EPA's criteria for approving such petitions are impractical, discourage innovation, and deter engine manufacturers from seeking approval of new certification fuels.

Specifically, EPA stated that petitioners seeking approval of an alternative certification fuel must demonstrate that such a fuel "would be readily available nationwide" and that "vehicles would not operate appropriately on the other available fuels."¹⁴ These unreasonable conditions create a "chicken vs. egg" dilemma that discourages engine manufacturers from pursuing approval of new certification fuels. That is, fuel blenders and retailers will not make a fuel "readily available nationwide" unless a substantial share of automobiles on the road are certified and approved to use the fuel. But automakers cannot certify new automobiles on an alternative certification fuel unless the fuel is "readily available nationwide." This circuitous requirement virtually guarantees that engine manufacturers will be unable to secure approval of alternative certification fuels. EPA should clarify that a fuel need not be "readily available nationwide" as a condition of approval of new certification fuel petitions.

Similarly, the requirement to demonstrate that "vehicles would not operate appropriately on other available fuels" discourages flexibility and innovation, and deters engine makers from pursuing approval of alternative certification fuels. As an example, an engine manufacturer may design a high-compression ratio engine that is optimized and requires high octane fuel (e.g., 98 RON); the automaker may wish to certify the vehicle on a high octane test fuel. In this case, the key variable allowing efficient operation of this engine is the octane rating. However, that octane rating can be achieved commercially using many different gasoline blending components. Since octane rating is the key enabler of efficiency in this engine, the engine could be designed to operate appropriately both on ethanol-free premium gasoline with 98 RON octane and on splash-blended E30 with 98 RON octane. However, the current regulatory requirements to show that the vehicle "would not operate appropriately on other available fuels" would prohibit engine manufacturers from embracing flexible approaches to engine design.

¹³ 79 Fed. Reg. 23528

¹⁴ *Id.*

d. Eliminate unnecessarily burdensome and costly requirements related to the fuel and fuel additive registration process.

Current regulations governing the registration of new fuels and fuel additives are unnecessarily complex and costly, and have effectively shielded incumbent motor fuels from competition. While the general requirements for registering a new fuel are prescribed in CAA 211(b) and CAA 211(f), EPA's interpretation of these provisions, and the resultant regulations promulgated by EPA, are overly expansive and burdensome. The cumbersome and costly process to register E15 (and the unwieldy conditions of EPA's approval of a CAA 211(f) waiver for E15) serves as a poignant example of the superfluous nature of EPA's administration of the fuel registration process.

First, EPA's overly narrow interpretation of what constitutes "substantially similar" under CAA 211(f) effectively prevents new fuels from obtaining registration, and forces producers of those fuels to instead pursue a waiver from CAA 211(f) requirements. EPA's restrictive interpretation that new fuels must have the same "elemental composition" as the gasoline used to determine compliance with emissions standards virtually guarantees that no renewable fuel or new ethanol/gasoline blend will ever be deemed "substantially similar" (incidentally, different gasolines can have distinctly different "elemental composition," yet EPA treats all gasolines as being of homogenous composition).

Thus, manufacturers of these new fuels must pursue a CAA 211(f) waiver to show that the fuel will not "cause or contribute" to the failure of emissions control devices. The process established by EPA to secure such a 211(f) waiver is lengthy, costly, and uncertain. EPA requires extensive exhaust and evaporative emissions testing over the "full useful life" of vehicles and engines, robust materials compatibility testing, and subjective "driveability" testing. These tests can cost tens of millions of dollars to perform.

Once all of the tests are completed, the manufacturer of the new fuel must submit an application with all test results to EPA. Acceptance of the materials by EPA is not guaranteed. However, if the Agency accepts the application, a public docket is established and EPA has up to 270 days to respond to the applicant. Further, EPA may decide that approval of a CAA 211(f) waiver application is conditional upon fuel manufacturers meeting additional requirements as determined by the Agency (e.g., EPA implemented an additional "misfueling mitigation" regulation as part of its CAA 211(f) waiver approval for E15).

In addition to the CAA 211(f) waiver requirements described above, the manufacturer of a new fuel must also conduct "...tests to determine potential public health and environmental effects of the fuel..." as required by CAA 211(b). Again, EPA's interpretation of this statutory requirement is overly expansive and financially exorbitant. EPA requires detailed analysis of exhaust emissions, including speciation of a wide variety of compounds. The Agency also requires animal testing to determine the potential health effects of exposure to the fuel's evaporative emissions. Finally, recently promulgated Tier 3 motor fuel regulations essentially give EPA free rein to determine whether any other additional health effects tests are needed to satisfy the requirements of CAA 211(b).

Taken together, these EPA fuel registration requirements form an arduous barrier and unreasonable standard for approval of new fuels. As a consequence, new renewable fuel blends that provide distinct and well-known environmental and human health benefits are effectively shut out of the market and incumbent fossil fuels are insulated from competition. While EPA's expansive and liberal interpretation of statutory fuel registration requirements may be prudent for entirely new or novel fuel molecules, compounds, or blends about which little is known, it is unnecessary for fuels and blends that have been thoroughly analyzed and are well understood.

Ethanol has been used as a motor fuel component for decades. The existing information and data regarding ethanol's composition, emissions impacts, materials compatibility, effects on "driveability," and health effects is more than sufficient to support EPA decision-making about registration of new gasoline/ethanol blends for use in compatible gasoline engines.

When the effects of gasoline/ethanol blends like E20, E25, and E30 are already well-known, it makes no sense for EPA to interpret the requirements of 211(b) and 211(f) as rigidly and expansively as it has done in the past for new fuels. It is time for EPA to modernize, simplify and streamline its interpretation of statutory fuel registration requirements. Doing so would truly open the market to competition and remove barriers to expanded use of renewable fuels.

e. Update the "R-factor" for fuel economy (CAFE) compliance calculations to better represent modern engines and fuels.

EPA incorporates the use of a so-called "R-factor" in fuel economy calculations in order to address concerns about the impacts of test fuel property variations on corporate average fuel economy (CAFE) compliance. The R-factor is defined as the ratio of the percent change in fuel economy to the percent change in volumetric heating value for tests conducted using two differing fuels.

Based on outdated 1980s-era vehicle testing data, EPA requires that automakers use an R-factor of 0.6 in CAFE compliance calculations. However, recent reassessments of the R-factor were conducted to determine the impacts of adjustments to the properties of certification gasoline under EPA's Tier 3 regulations. Specifically, the new Tier 3 certification fuel contains 10% ethanol by volume, and EPA allows automakers to petition the Agency for approval to use certification fuels with even higher levels of ethanol (e.g. 25% or 30% ethanol by volume). Because ethanol has a lower heating value than gasoline, the inclusion of ethanol in certification fuels is expected to result in a significant deviation from the CAFE baseline test fuel heating value. Thus, the accuracy of the R-factor in predicting fuel economy changes resulting from heating value changes becomes increasingly important. Recent studies by Oak Ridge National Laboratory, Ford Motor Company, and others have found that the R-factor for modern engines and vehicles is very close to 1.0.¹⁵ Based on these findings, many stakeholders encouraged EPA to raise the R-factor to 1.0 during the Tier 3

¹⁵ See, Sluder, C., West, B., Butler, A., Mitcham, A. et al., "Determination of the R Factor for Fuel Economy Calculations Using Ethanol-Blended Fuels over Two Test Cycles," *SAE Int. J. Fuels Lubr.* 7(2):551-562, 2014, doi:10.4271/2014-01-1572; and Sluder, C. Scott and Brian H. West. Oak Ridge National Laboratory. "Preliminary Examination of Ethanol Fuel Effects on EPA's R-factor for Vehicle Fuel Economy." June 2013. ORNL/TM-2013/198

public notice and comment period. However, the Agency has so far neglected to adjust the R-factor to account for the efficiency of modern engines.

EPA's continued failure to raise the R-factor serves to discourage automakers from pursuing certification and commercialization of engines designed to operate on higher levels of ethanol. In fact, using the EPA-required R-factor of 0.6 instead of 1.0 would result in a substantial 4.7% certification fuel economy penalty for a vehicle designed for E30 and a 2.4% penalty for using E15.¹⁶ Clearly, penalties of this magnitude are a strong deterrent to automakers interested in designing engines that are optimized to use higher-ethanol blends.

We strongly encourage EPA to revise the R-factor to 1.0, which is justified by the latest scientific literature. Doing so would encourage—rather than deter—innovation in engine design and remove yet another EPA-erected barrier to expanded renewable fuel use.

f. Level the playing field for all alternative fuel vehicles, including flexible fuel vehicles (FFV), under the fuel economy and light-duty vehicle greenhouse gas (CAFE/GHG) program. Revise and extend the alternative fuel weighting factor (“F factor”) used for determining compliance values for FFVs.

The 2017-2025 Light-duty Vehicle GHG Emissions and Corporate Average Fuel Economy Standards (CAFE/GHG) finalized by EPA and NHTSA in 2012 created powerful and lucrative incentives for automakers to increase production of certain alternative fuel vehicles. Specifically, EPA created an “incentive multiplier” for all electric vehicles (EVs), plug-in electric vehicles (PHEVs), fuel cell vehicles (FCVs) and compressed natural gas vehicles (CNGVs) sold in model year 2017-2021.¹⁷ In essence, the incentive multiplier allows these alternative fuel vehicles to count as more than one vehicle in the manufacturer's GHG compliance calculation (meaning emissions from one vehicle are spread across multiple vehicles, diluting the emissions value per vehicle). In addition, EPA entirely ignored the upstream (well-to-tank “lifecycle”) emissions impacts of electricity production and set the emissions value for EVs at 0 grams of CO₂/mile.¹⁸ EPA further provided generous “utility factors” to dual-fueled CNGVs and PHEVs, which assume those vehicles will be fueled with the lower-GHG alternative fuel most of the time.

Meanwhile, the provisions of the 2017-2025 CAFE/GHG rules strongly discourage automakers from further production of FFVs. For FFVs, EPA originally proposed requiring automakers to demonstrate actual usage of alternative fuel in the vehicle in order to generate the associated credit toward compliance with GHG standards. Of course, this is impractical and unreasonable, so EPA also finalized an alternative approach whereby the Agency would issue “early guidance” to automakers establishing a standard E85 utility factor (“F factor”) based on national weighted average E85 consumption.¹⁹

¹⁶ Woebkenberg, William. Mercedes-Benz Research & Development North America. “Mid-Blend Ethanol Fuels – Implementation Perspectives.” Presentation to Society of Automotive Engineers. July 25, 2013.

¹⁷ 77 Fed. Reg. 62628

¹⁸ 77 Fed. Reg. 62651

¹⁹ 77 Fed. Reg. 62830

In early 2013, EPA issued a draft of its first “early guidance” document outlining the FFV weighting factor to be used for Model Years 2016-2019. The EPA draft proposed an F factor of 0.2, meaning EPA projected that 20% of a MY 2016-2019 FFV’s lifetime miles would be driven on E85.²⁰ Several stakeholder groups, including RFA, commented on the draft guidance and demonstrated why a higher F factor in the range of 0.4-0.6 was warranted.²¹ In response to these comments, EPA issued final guidance in late 2014 that further reduced the F factor for MY 2016-2018 FFVs to just 0.14.²² Meanwhile, EPA discontinued in MY2015 the use of a separate incentive—the 0.15 “alternative fuel economy divisor” factor—which in the past strongly encouraged FFV production. Thus, the 2017-2025 standards provide almost no incentive to automakers to build FFVs, while other alternative fuel vehicles receive generous credits and incentives. The impacts of EPA’s discriminatory credit regimen are already being felt in the marketplace—FFV production in MY2015 was down nearly 1 million vehicles, or 34%, from the record output level in MY2014, according to EPA’s own data.²³

While we agree with EPA that automakers should be encouraged to produce vehicles that “[r]educ[e] petroleum consumption to improve energy security”, “save the U.S. money” and “[r]educe climate change impacts,”²⁴ we believe incentives to stimulate the production of such vehicles should be constructed fairly and consistently. EPA should restore an equitable utility factor for FFVs in the range of 0.4-0.6 through MY2025.

g. Reject the results of the EPA/V2/E-89 Fuel Effects Study and suspend further use or development of the MOVES2014 model until a new emissions study based on appropriate test fuels is conducted.

According to a number of independent third-party reviews, EPA’s newest vehicle emissions modeling system (MOVES2014) is inadequate and unreliable as a tool for estimating the exhaust emissions of gasoline blends containing more than 10% ethanol. This is important because state air agencies use the MOVES modeling system to demonstrate compliance with Clean Air Act requirements. In its current condition, the model would likely discourage states from pursuing the use of higher ethanol blends as a strategy for reducing mobile source emissions.

The flaws in MOVES2014 with regard to ethanol blends stem from the model’s use of data from the EPA/V2/E-89 Fuel Effects Study. RFA strongly recommends suspending further use or development of the MOVES2014 model until a new emissions study is conducted using test fuels that more accurately represent real-world fuel blends.

In early 2016, a detailed analysis of the MOVES2014 model conducted by scientists from Wyle Laboratories and the Volpe National Transportation Systems Center concluded that, “Overall,

²⁰ 78 Fed. Reg. 17660

²¹ Comment by Bob Dinneen, President & CEO, Renewable Fuels Association re: Draft Guidance for Industry and Staff: E85 Flexible Fuel Vehicle Weighting Factor for Model Years 2016-2019 Vehicles under Light-duty Greenhouse Gas Emissions Program. April 22, 2013. (EPA-HQ-OAR-2013-0120-0008).

²² U.S. EPA to Auto Manufacturers. “E85 Flexible Fuel Vehicle Weighting Factor for Model Year 2016-2018 Vehicles.” Nov. 12, 2014.

²³ U.S. EPA. November 2016. “Greenhouse Gas Emission Standards for Light-Duty Vehicles: Manufacturer Performance Report for the 2015 Model Year.” EPA-420-R-16-014

²⁴ 76 Fed. Reg. 75164-75165

it was found that the predictive emissions results generated by MOVES2014 for mid-level ethanol blends were sometimes inconsistent with other emissions results from the scientific literature for both exhaust emissions and evaporative emissions...results and trends from MOVES2014 for certain pollutants are often contrary to the findings of other studies and reports in the literature.”²⁵

Of particular concern is that the MOVES2014 model predicts increased exhaust emissions of nitrogen components and particulate matter as the ethanol content in gasoline increases, even though real-world emissions testing based on mid-level ethanol blends has shown distinctly opposite trends. “The results from other researchers often show ethanol-related emissions trends that are different than the MOVES2014 results obtained for this study...” the study found. “In some cases not only were magnitudes different but different [directional] trends were presented.”²⁶

The model’s questionable predictions for certain emissions results from its use of data that misrepresents the actual parameters and composition of mid-level ethanol blends. Specifically, the default ethanol blend data in the MOVES2014 model is based on arcane “match blending” methods intended to “match” specific fuel parameters, rather than “splash blending” methods that are used in the real world. This data comes from the EPA/V2/E-89 Fuel Effects Study. According to Wyle and Volpe experts, “...real-world splash blends may not have the same attributes as the modeled default match blends used in MOVES, and actual emissions may be different than the emissions predictions from MOVES.”²⁷

These likely distortions are then multiplied through the use of overly restrictive adjustment factors and equations. The authors write that “...the trends used to determine constants in the model’s equations may need to consider many more variables than are now being considered,” and “the adjustment factor approach may need to be more robust and consider the changes to emissions as a function of all properties, not independently.” In an attempt to simulate the emissions of mid-level ethanol blends created using real-world “splash blending” practices, the Wyle and Volpe scientists performed an analysis where certain fuel parameters were modified. However, the model still produced questionable results that suggested increases in emissions of nitrogen components and PM as ethanol content increases.

To correct the deficiencies with the MOVES2014 model, the Wyle and Volpe scientists recommend obtaining new mid-level ethanol blend emissions data using blends that better represent real-world fuel properties and blending practices. They write that “...additional vehicle exhaust testing from mid-level ethanol blends with well-defined fuel properties is recommended.” RFA agrees with the conclusions and recommendations of the Wyle/Volpe study and encourage EPA to suspend further usage of the MOVES2014 model until a new emissions study is conducted.

²⁵ Wayson, R., Kim, B., and Noel, G. January 2016. “Evaluation of Ethanol Fuel Blends in EPA MOVES2014 Model.” Conducted for the Renewable Fuels Association. Available at: <http://ethanolrfa.org/wp-content/uploads/2016/01/RFA-MOVES-Report.pdf>

²⁶ *Id.*

²⁷ *Id.*, see also: J.E. Anderson, T.J. Wallington, R.A. Stein, W.M. Studzinski, “Issues with T50 and T90 as Match Criteria for Ethanol-Gasoline Blends,” SAE Int. J. Fuels Lubr. 7(3):2014, doi:10.4271/2014-01-9080, November, 2014.

h. Update the outdated lifecycle greenhouse gas (GHG) analysis of corn ethanol conducted for the RFS2 final rule.

In the pre-ambule for the RFS2 final rule, EPA acknowledged that lifecycle GHG analysis is an evolving science, and that updates to the Agency’s analysis would be undertaken as better data and methodologies became available. EPA wrote that it “...recognizes that as the state of scientific knowledge continues to evolve in this area, the lifecycle GHG assessments for a variety of fuel pathways will continue to change.”²⁸ The Agency further stated that it “...plans to continue to improve upon its [lifecycle] analyses, and will update it in the future as appropriate...”²⁹ and “...the Agency is also committing to further reassess these determinations and lifecycle estimates.”³⁰

In a November 2012 letter to former Administrator Lisa Jackson, and in subsequent communications with the Agency, RFA has urged EPA to make good on its commitment to update its lifecycle GHG analysis of corn ethanol.³¹ Our 2012 letter included extensive references to newly published studies and newly available data that significantly improved the understanding of corn ethanol’s lifecycle GHG impacts. In the four years since we sent our letter, the state of science and the data available have continued to improve. A recent analysis conducted by ICF International for the U.S. Department of Agriculture found that today’s average 2014-era corn ethanol reduced lifecycle GHG emissions by 43% compared to EPA’s 2005 petroleum baseline.³² In contrast, EPA’s analysis suggests average corn ethanol will reduce lifecycle GHG emissions by only 21% relative to the 2005 baseline, but asserts that such reductions won’t be achieved *until 2022*. Notably, the ICF analysis takes the same general approach to estimating corn ethanol emissions that was taken by EPA for the RFS2 analysis. However, the use of more current and more robust data dramatically changes the outcome.

RFA again calls upon EPA to update its outdated analysis of corn ethanol lifecycle GHG emissions. An updated analysis by EPA is necessary to help inform regulatory decision-making and public policy debates about the climate benefits of the RFS and renewable fuels in general.

II. COMMENTS ON SPECIFIC PROVISIONS OF THE REGS PROPOSAL

As explained in the previous section, we believe “promoting the use of renewable fuels...” and “...tak[ing] steps to remove potential barriers to their production, distribution, and consumption” requires a far more comprehensive regulatory reform process than what is outlined in the REGS proposal. In lieu of proceeding with the current REGS rulemaking package, we encourage EPA to

²⁸ 75 Fed. Reg. 14765

²⁹ 75 Fed. Reg. 14677

³⁰ *Id.*

³¹ Robert Dinneen, President & CEO, Renewable Fuels Association to the Honorable Lisa P. Jackson, Administrator, U.S. Environmental Protection Agency. November 30, 2012. Available at: <http://ethanolrfa.org/wp-content/uploads/2015/09/EPA-Letter-Nov2012.pdf>

³² Flugge, M., J. Lewandrowski, J. Rosenfeld, C. Boland, T. Hendrickson, K. Jaglo, S. Kolansky, K. Moffroid, M. Riley-Gilbert, and D. Pape, 2017. A Life-Cycle Analysis of the Greenhouse Gas Emissions of Corn-Based Ethanol. Report prepared by ICF under USDA Contract No. AG-3142-D-16-0243. January 30, 2017.

broaden its efforts to modernize fuel regulations in a manner that would truly eliminate barriers to greater production and use of renewable fuels.

However, in the event EPA chooses to move forward with the current REGS proposal, RFA offers the following comments on the provisions of greatest import to ethanol producers.

a. Ethanol Flex Fuels (EFF)

Should EPA decide to proceed with the REGS rulemaking in its current form, we generally support the proposal to define E16-E83 as “ethanol flex fuels” (EFF). Specifically, we want to underscore our support for including E16-E50 in the EFF category of fuels. As recognized by EPA, defining E16-E50 as “gasoline” and subjecting producers of those fuels to the statutory “gasoline refiner” requirements under the Fuel & Fuel Additive program would be impractical and counterproductive to the goals of the Renewable Fuel Standard (RFS).

However, we’d like to offer a number of recommendations that we believe would strengthen the proposed EFF provisions by adding more flexibility, reducing administrative complexity, and allowing EFF producers, distributors, and consumers to best capitalize on economic efficiencies in the marketplace.

i. EFF compliance options

EPA proposes to allow three different options for demonstrating compliance with the EFF quality requirements: full-refiners, bulk blender-refiners, and blender pump-refiners. RFA principally supports the establishment of those categories of EFF refiners; however, as described below, we believe EPA should revise certain proposed provisions to enhance flexibility for bulk blender-refiners. For those entities downstream of the parent blendstock producers, we strongly support EPA’s proposal to rely on Product Transfer Documents (PTDs) to the maximum extent possible in lieu of batch testing to demonstrate compliance with the proposed sulfur, benzene, volatility, and CHONS requirements.

We have a number of specific comments below in response to the proposed measures related to demonstrating compliance with EFF volatility, sulfur, benzene, and CHONS requirements.

1. Reid Vapor Pressure (RVP)

For EFF blender pump-refiners, we agree that per-batch RVP testing is infeasible and unnecessary. We agree that blender pump-refiners should be allowed to demonstrate compliance with RVP requirements simply by maintaining PTDs to demonstrate that they made EFF from compliant parent blendstocks.

Further, we strongly agree that setting an RVP standard for E16–50 produced at blender pumps is not necessary, as EFF made at blender pumps from certified parent blends will not exceed the 10.0 psi design tolerance of Flex Fuel Vehicles (FFVs). We do not believe any additional RVP controls are needed for the EFF blender pump-refiner beyond those outlined in the proposal.

For EFF full-refiners and bulk blender-refiners, we support the alternative option proposed by EPA of setting a uniform RVP standard of 9.0 psi for EFF sold in conventional gasoline areas, including those areas where conventional gasoline is currently subject to a 7.8 psi RVP standard.

For EFF bulk-blender refiners, we agree that it would be impractical and cost prohibitive to require per-batch RVP testing on EFF batches made from gasoline or BOBs that take advantage of the 1.0 psi waiver for E10. Thus, we generally support the idea of allowing EFF bulk-blender refiners to use an RVP compliance tool in lieu of per-batch testing. We believe EFF full-refiners should also be allowed to use the calculative RVP compliance tool in place of RVP testing.

In concept, the calculative RVP compliance tool proposed by EPA is a good first step toward providing regulated parties with a simple compliance verification tool. However, we question whether the proposed RVP model and related equations will provide accurate predictions of the RVP for various EFF blends. We believe the Agency should continue to work with stakeholders to refine and improve the tool, and RFA would be pleased to collaborate with EPA in a process to develop an RVP compliance tool that is both accurate and simple to use.

2. Sulfur and Benzene

As EPA acknowledges, sulfur and benzene are generally absent from undenatured fuel ethanol. It is the act of denaturing fuel ethanol with hydrocarbon denaturant that typically introduces both sulfur and benzene. In the case of EFF, any sulfur and benzene in the finished motor fuel will have originated from the hydrocarbon blendstock used to make EFF and the ethanol denaturant. With respect to demonstrating compliance with the REGS proposal's sulfur and benzene limits, we believe EFF bulk blender-refiners should have more flexibility. As long as the finished EFF sold at retail meets EPA's proposed sulfur and benzene requirements, EFF bulk blender-refiners should be allowed to capture the benefits of dilution during EFF blending.

a. Certified Natural Gasoline EFF Blendstock

We are concerned that certain aspects of EPA's proposal will impede the use of low-cost natural gasoline EFF blendstock rather than encourage it. Specifically, we believe the proposed 10 ppm per-gallon sulfur cap and the 0.62% benzene cap on certified natural gasoline EFF blendstock are overly restrictive and unnecessary to ensure that finished EFF offers an equivalent level of sulfur and benzene control as gasoline.

Any sulfur and/or benzene in finished EFF will have originated from the hydrocarbon blendstock used to make EFF and the ethanol denaturant. Thus, the parties that actually blend EFF (normally "bulk blender-refiners") should be allowed to use ethanol's beneficial dilution effects to the maximum extent possible. Allowing bulk blender-refiners to fully utilize the dilution effect would add needed flexibility and cost reduction to the proposal's EFF provisions, while still guaranteeing that the finished EFF provides an equivalent level of environmental protection as gasoline.

EPA proposes to limit the amount of natural gasoline in EFF to 32% of the finished fuel, including denaturant. Thus, if the maximum amount of certified natural gasoline blendstock is used to make a finished EFF, it could have sulfur content as high as 31 ppm and still produce a finished EFF with sulfur content of 9.9 ppm. Similarly, "summer blends" of certain EFFs may contain as little as 17% natural gasoline. This means the finished EFF would still meet the 10 ppm sulfur limit even if the natural gasoline blendstock had sulfur content as high as 58 ppm.

Natural gasoline suppliers have informed RFA that the available volumes of natural gasoline with 10 ppm sulfur (or less) and 0.62% benzene are likely insufficient to support widespread EFF blending. Further, we are told the costs associated with meeting a 10 ppm per-gallon cap would likely be passed on to EFF blenders, making natural gasoline much less attractive economically and potentially eliminating some or all of the cost advantage that facilitates deep discounting of flex fuels at retail.

Because EPA's concern appears to be ensuring that in-use EFF achieves an "equivalent level of environmental protection as gasoline," we support raising the proposed sulfur limits for certified natural gasoline to levels that account for ethanol's dilution effect. A maximum sulfur limit of approximately 30 ppm is justified for EFF blends made with the maximum allowable volume of natural gasoline (32%, including denaturant). For EFF blends made with the minimum allowable volume of hydrocarbon blendstock (17%, including denaturant), a maximum sulfur limit of approximately 58 ppm is justified. In both cases, the sulfur content of the finished EFF would be 10 ppm or less.

This same dilution approach to EFF blending should apply to benzene limits as well, and current industry standards regarding benzene maximums would sufficiently ensure that the benzene content of finished EFFs is below the specified 0.62% limit. Since 2004, ethanol denaturants available in the marketplace nationwide have met the California-imposed benzene limit of 1.10%. This has become the de facto marketplace standard for denaturant benzene limits, and denaturant buyers and sellers have demonstrated compliance with the California standards simply by maintaining PTDs. To ensure continued fungibility and flexibility in the EFF market, EPA should allow the California maximum benzene content of 1.10% for certified natural gasoline EFF blendstock. With a 1.10% benzene maximum on the natural gasoline blendstock, the benzene content of finished EFF blends made with the maximum allowable volume of natural gasoline (32%, including denaturant) would not exceed 0.35%. This is roughly half of the 0.62% limit proposed by EPA.

Bulk blender-refiners could demonstrate that finished EFFs sold to retail met the 10 ppm sulfur cap and 0.62% benzene maximum simply by maintaining records on 1) the sulfur and benzene content of EFF blendstocks, and 2) the composition of the finished EFF (i.e., percent volumes of denatured fuel ethanol and natural gasoline). Allowing EFF blenders to capture the benefits of ethanol dilution would enhance flexibility, help ensure natural gasoline remains economically viable as an EFF blendstock, and guarantee finished EFF achieves an equivalent level of environmental performance as gasoline.

Finally, EPA asks for comment on whether it should allow only EPA-compliant gasoline, BOBs and DFE to be used as EFF blendstocks. We agree that such a program would in fact be "simpler" to implement and enforce; however, we believe EPA should allow the use of both certified and uncertified natural gasoline for EFF blending in order to maximize economic efficiency and flexibility in the marketplace.

3. CHONS

Because the only potential source of non-CHONS elements in EFF would be the natural gasoline blendstock, we believe that only certified natural gasoline EFF blendstock producers need to demonstrate that their product is comprised only of CHONS elements. We agree that EFF bulk blender-refiners and blender pump-refiners should be allowed to demonstrate CHONS compliance by maintaining PTDs for the parent blends. We do not believe additional controls are needed to prevent the presence of non-CHONS elements in EFF.

ii. EFF Quality Survey

Based on the industry's negative experience with the E15 fuel survey, RFA is strongly opposed to the proposal to establish an EFF quality survey program in which physical EFF samples are collected and analyzed. As the E15 survey has demonstrated, the costs of such programs typically outweigh the benefits and the program scope can quickly expand beyond its intended purpose. As an alternative to physical sampling, EPA's proposal discusses a survey arrangement in which the independent surveyor reviews PTDs to ensure that EFF bulk blender-refiners and blender pump-refiners used appropriate parent blendstocks to make EFF. This alternative is certainly preferable to physical sampling, and we agree with EPA that it would greatly reduce the cost of compliance assurance while still providing an appropriate level of verification.

EPA also asks for comment on whether EFF full-refiners should be required to participate in the quality survey. Setting aside the question of whether such a survey is fundamentally necessary, any mandatory survey program should include full-refiners as participants (especially if full-refiners are allowed to use the same RVP compliance tool as bulk blender-refiners).

iii. Commingling Batches of EFF

EPA proposes a prohibition on 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. RFA opposes this proposed prohibition, as it would interfere with EFF transportation and storage practices that are already well-established in the marketplace. EFF is in fact being distributed today by railcar, and intervening storage (where EFF from one origination may be commingled with EFF from a second origination) is sometimes necessary. As the EFF market continues to grow, we expect more product will be commingled at various points in the supply chain. As EPA recognizes, its proposed prohibition of commingling "could complicate the storage of EFF at facilities between the producer and the retail/WPC facility." We agree and request that EPA abandon this proposal. Concerns about the potential for reporting and recordkeeping errors with commingled fuels can be effectively mitigated through existing accounting and documentation practices.

iv. Reporting Requirements

EPA seeks comment on the frequency and scope of required reporting for the three categories of EFF refiners, specifically asking if additional reporting requirements beyond those laid out in the proposal are necessary for EFF bulk blender-refiners. RFA believes the proposed annual report would be more than sufficient in providing EPA the information it needs; we do not believe additional reporting requirements are necessary or prudent.

v. E15

We agree with EPA that even though E15 is technically defined as “gasoline,” it is unreasonable to subject E15 retailers who make the fuel via blender pumps to the registration, reporting and batch testing requirements that apply to gasoline producers. Accordingly, to the extent EPA moves forward with the REGS proposal as written, we support the proposal to allow entities who manufacture E15 at blender pumps to use PTDs to demonstrate compliance with sulfur, benzene, CHONS, and volatility requirements in lieu of performing batch testing.

While the REGS proposal doesn’t necessarily change anything with regard to the applicability of gasoline RVP standards to E15, it does underscore the urgency of EPA resolving the disparate volatility treatment of E10 and E15. We discussed this issue in detail in the previous section of these comments. As expressed earlier in these comments, we again strongly encourage EPA to take immediate action to provide parity with regard to volatility regulation of all ethanol blends.

vi. Renewable Volume Obligations (RVOs)

We strongly support EPA’s proposal to defer the imposition of Renewable Volume Obligations (RVOs) on parties making EFF using natural gasoline blendstock. Imposing RVOs on EFF blenders who use certified natural gasoline blendstock would deter EFF blending and further constrain production and use of renewable fuels in the marketplace.

b. Biointermediates

As part of the REGS proposal, EPA introduces provisions allowing renewable fuel producers to generate RINs on renewable fuels made from “biointermediates,” which are renewable biomass feedstocks that are substantially pre-processed at separate facilities. Pre-processing of certain renewable biomass feedstocks at intermediate facilities could indeed reduce transportation, storage, and production costs for some renewable fuels. While we agree with the spirit and intent of these provisions, we are concerned by the potential for a number of unintended consequences, which are described below.

i. Waste alcohol/ethanol

The proposed biointermediate provisions could have devastating impacts on facilities that recycle waste alcohol and other food, beverage, and biogenic industrial wastes into fuel-grade ethanol. These facilities make up a relatively small but very important segment of the ethanol industry. Clearly, the biointermediate provisions of the REGS proposal were meant to focus on feedstocks that were produced or pre-processed for the express purpose of conversion to renewable fuel at a separate downstream facility. This is not the case for waste alcohol feedstock, which would likely be defined as a “biointermediate” feedstock as a consequence of this proposal.³³

The feedstock suppliers (“waste generators”) in this case are not producing or pre-processing a feedstock for eventual renewable fuel production. Rather, they are manufacturing products that support their primary business operations (beverage, cosmetic, pharmaceutical, etc.), which have no

³³ At 81 Fed. Reg. 80834, EPA states that the renewable biomass resulting from the proper separation of yard waste, food waste, and municipal solid waste would *not* be considered as “biointermediate” feedstocks; however, it remains somewhat unclear how waste alcohol/ethanol would be treated.

relation to renewable fuel production. The material they send to waste ethanol recycling facilities is waste generated from their primary business operations, not “biointermediate” feedstocks that were produced for the sole purpose of further refining into renewable fuel. The waste received by these ethanol facilities is already regulated under the Resource Conservation and Recovery Act (RCRA), which encourages recycling of wastes into useful products and requires detailed recordkeeping on waste composition (e.g., renewable content), disposition, and other factors.

Requiring “waste generators” to register with EPA as “biointermediate” producers and subjecting them to site visits, annual attest engagements, quality assurance plans, and other registration, reporting and recordkeeping burdens would significantly deter them from continuing to supply waste feedstock to ethanol facilities. It would be more economical and less burdensome for them to direct the waste alcohol elsewhere (e.g., incinerators or other disposal). As there are obvious environmental benefits associated with recycling waste ethanol from manufacturing and industrial processes into fuel ethanol, it would be counterproductive to include waste ethanol in the definition of “biointermediate.” Thus, we strongly encourage EPA to make clear that the definition of “biointermediate” does not include waste ethanol reclaimed for the purpose of recycling into fuel ethanol.

ii. Undenatured Ethanol

Under the proposal, undenatured ethanol that is subsequently denatured at a separate facility would be classified as a biointermediate. We see no regulatory rationale or benefit associated with defining undenatured ethanol as a biointermediate, and doing so would only result in duplicative reporting and recordkeeping burdens. RFA is opposed to including undenatured ethanol in the definition of “biointermediate.”

Undenatured fuel ethanol is primarily produced for export markets; it would be rare for undenatured ethanol produced at one U.S. facility to be denatured at a separate U.S. facility. There may be isolated cases where a shipment of undenatured ethanol originally designated for export is not actually exported and is instead denatured and consumed domestically. However, the eventual fate of the ethanol in this case would likely be unknown to the original producer; requiring undenatured ethanol producers to register as “biointermediate” producers to account for these sorts of “what if” scenarios seems unnecessarily burdensome. In any case, the facilities that make undenatured ethanol for export markets are generally the same facilities that produce denatured fuel ethanol for the domestic market. Thus, they are already registered for the RFS and other EPA fuel programs. Further, producers of undenatured fuel ethanol are tightly regulated by the U.S. Department of Treasury’s Alcohol and Tobacco Tax and Trade Bureau (TTB). Production volumes and movements of undenatured fuel ethanol are reported to TTB.

As noted by EPA, many foreign ethanol producers do not typically denature ethanol that is exported to the United States. Rather, the importers who receive the foreign product are typically the parties who denature the ethanol and generate RINs. Still, foreign ethanol producers are required to register with EPA as renewable fuel producers under the RFS. The current program requiring foreign producers to register with EPA has been effective and efficient. Because foreign producers are already familiar with these requirements and have already gone through the registration process, we

see no benefit to eliminating the current process and requiring foreign producers to re-register as biointermediate producers. RFA is opposed to removing the current foreign ethanol producer requirements.

c. Cellulosic Ethanol Pathways

RFA supports the proposal to add new cellulosic biofuel RIN generation pathways to Table 1 to 40CFR 80.1426 for short-rotation hybrid poplar and willow feedstocks. Adding new feedstocks to Table 1 enhances flexibility for biofuel producers and supports innovation. While we continue to question the scientific legitimacy of certain elements of EPA’s consequential approach to lifecycle GHG analysis (e.g., indirect land use change estimation), the existing literature on the use of poplar and willow for biofuel production generally finds GHG emissions reductions in the same range as EPA’s estimates.

d. Other Provisions

The REGS package contains a number of other miscellaneous proposed regulatory revisions that could potentially affect the operations of our producer members. We offer the comments below in response to many of those proposed revisions.

i. RVO Reporting

RFA supports EPA’s proposal revising RVO reporting requirements. Specifically, we agree it would be beneficial to require obligated parties to report constituent gasoline and diesel fuel product volumes separately rather than combined.

ii. Oil from Corn Oil Extraction

RFA agrees that the current definition for “corn oil extraction” should be revised, as it is too narrow and excludes new and emerging corn oil recovery technologies. We agree with EPA that broadening the definition would enhance flexibility and support innovation under the RFS. However, we recommend a slight modification to EPA’s proposed definition for “corn oil extraction.” EPA should clarify that the phrase “...rendered unfit for food uses...” means unfit for *human* food uses, not animal food (feed) uses. This is an important distinction because the Federal Food, Drug, and Cosmetic Act (FFDCA) defines “food” as “articles used for food or drink for man or other animals...”³⁴ The U.S. Food and Drug Administration (FDA) states “...any article that is intended to be used as an animal feed ingredient, to become part of an ingredient or feed, or added to an animal’s drinking water is considered a ‘food’ and thus is subject to regulation.”³⁵ Thus, we request that EPA insert the term “human” immediately before the term “food,” so that the new definition reads “...rendered unfit for human food uses...”

Because FDA includes animal feed in the definition of “food,” we further recommend that EPA modify the terms “Non-food grade corn oil” in pathways F and H in Table 1 to 40 CFR 80.1426. We recommend EPA add the term “human” immediately before the term “food,” so that the terminology in Table 1 to 80.1426 reads: “Non-human food grade corn oil.”

³⁴ 21 U.S.C. 321(f) (emphasis added)

³⁵ U.S. Food & Drug Administration. “Product Regulation.” Available at: <http://www.fda.gov/AnimalVeterinary/Products/AnimalFoodFeeds/ucm050223.htm>

iii. Registration of New and Expanded Grandfathered Volumes

Based on the reasoning provided in the proposed rule, RFA fully understands the desire by EPA to establish a firm cut-off date for submissions from renewable fuel facilities that wish to amend the baseline grandfathered volumes on their registrations. However, we believe EPA should clearly commit to fully processing the accepted and pending requests that have already been submitted to the Agency. Further, we believe it is unreasonable to establish a cut-off date that coincides with the date the REGS proposal was published in the Federal Register. The cut-off date had already passed by the time most stakeholders reviewed this section of the proposed rule, meaning they had no time to react. We recommend that EPA set the final cut-off date for requests to adjust grandfathered baseline volumes at 30 days following publication of the final rule.

iv. RFS Facility Ownership Changes

RFA objects to several elements of EPA's proposed requirements related to facility ownership changes. As EPA correctly notes, "...many elements of the registration for the facility previously registered to another renewable fuel producer remain the same upon change of ownership."³⁶ Accordingly, EPA has historically allowed parties that newly acquire a renewable fuel facility to substantially rely upon the registration materials submitted by the previous owner. This has minimized the up-front administrative burden associated with facility ownership changes, and has facilitated uninterrupted operations at these facilities. Thus, RFA is opposed to the proposal requiring the party who acquires the previously registered facility to submit entirely new registration information (including engineering review, letters from RCOs of both companies, and proof of sale) 60 days prior to RIN generation. This proposal could result in significant delays that interrupt the production of renewable fuel and generation of RINs at facilities that experience a change in ownership. Further, it is not always possible for the buyer to acquire a letter from the RCO of the entity that previously owned a facility, particularly in cases of bankruptcy or corporate mergers. RFA believes documents verifying the sale of the facility should be sufficient, along with a letter from the RCO of the purchasing party.

Additionally, we believe the requirement to submit new registration materials 60 days prior to RIN generation is overly lengthy and inconsistent with the timeframes typically associated with change in ownership transactions. We believe a much shorter timeframe would be sufficient, particularly in cases where the newly acquired facility was previously registered and where the D-code of RINs generated will not change. Further, requiring the purchasing party to conduct another third-party engineering review of the facility is unreasonable and unnecessary if the review already on file with EPA is current and no material changes to the facility are undertaken by the purchaser.

Finally, EPA proposes that a formal acceptance of the purchaser's registration materials would be required before the Agency would allow the generation of RINs; however, EPA does not specify any timeframe for granting such acceptance. As a result, ethanol plants could be forced to sit idle for months while they await an approval of submitted registration materials. Thus, RFA requests that EPA specify a timeline of no more than 30 business days after receipt for granting approval of registration materials for facilities that have changed ownership. Alternatively, RFA requests

³⁶ 81 Fed. Reg. 80903

language that if EPA fails to respond within a time certain (e.g., 30 days) then the facility ownership change is automatically implemented.

EPA is proposing to allow parties who acquire renewable fuel facilities to retroactively generate RINs for renewable fuel produced and sold in the interim between the effective date of the transfer of ownership and the date of registration acceptance by EPA. Still, it is unlikely that ethanol producers would produce ethanol at newly acquired facilities during this interim period due to the risk that EPA may not accept the registration materials and RINs would not be issued retroactively.

v. Changes to the Requirements for Independent Third-Party Professional Engineers and Electronic Submission of Engineering Reviews

In response to EPA's concern that the proposed biointermediate provisions will cause a "significant expansion in the scope and number of regulated entities under the RFS program," the Agency is proposing to "strengthen the independence requirements" for both third-party audits and professional engineers.³⁷ While RFA fully appreciates the need to ensure the integrity of the RFS program, we believe some of the proposed requirements are unrealistic and would impose unnecessary cost burdens on certain renewable fuel producers without delivering any regulatory benefit.

Specifically, "unlawful and fraudulent activities associated with the RFS program" have been confined to the biodiesel industry. There have been no fraud cases involving corn ethanol producers and the current requirements regarding third-party engineering reviews and audits have been effective in verifying compliance for this segment of the renewable fuels industry. If EPA believes the proposed requirements for stronger independence are truly necessary, it should consider applying these additional requirements only to advanced biofuels or biodiesel specifically.

The pool of qualified engineering and audit firms with knowledge and experience in renewable fuels is relatively small. Therefore, it is unrealistic to require that renewable fuel producers may not use a certain audit or engineering firm if that firm has conducted research, development, design, construction, or consulting services for the producer within the last three years. Further, the proposed provision that bars a third-party engineers from providing any business or consulting services to renewable fuel producers for whom they conducted an engineering review is unnecessarily burdensome. Also, for the purposes of third-party engineering reviews on facilities that produce only corn ethanol and D6 RINs, we do not believe the independence requirements that apply to third-party auditors should also apply to third-party professional engineers.

EPA's proposed revisions to third-party auditor and engineer requirements may actually have the adverse effect of *increasing* the potential for errors, incorrect information, and thus invalid RINs. This is because EPA's proposal would force renewable fuel producers to solicit engineers and auditors who have little or no experience and knowledge of renewable fuel production processes and the RFS regulation.

³⁷ 81 Fed. Reg. 80904