

September 25, 2009

Honorable Lisa Jackson
Administrator
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460

RE: Docket No. EPA-HQ-OAR-2005-0161

Dear Administrator Jackson:

The Methanol Institute appreciates the opportunity to comment on the proposed rule for the Renewable Fuels Standard, commonly referred to as “RFS-2.”

The Methanol Institute (MI) serves as the trade association for one of the world's most vibrant and innovative industries. Founded in 1989 to lobby the U.S. Congress in support of methanol fuel markets, MI now serves its members in every corner of the globe from offices in both Washington, D.C. and Singapore.

Each day, roughly 70,000 metric tonnes of methanol is shipped from one continent to another, enough product to fill 777 rail cars. As an essential chemical building block and emerging energy resource, methanol impacts our daily lives in infinite ways. Today, MI's membership includes the world's leading methanol producers, technology companies, distributors, terminal operators and shippers. Our 30 member companies produce and/or distribute the majority of methanol consumed across the globe. An important and growing market for methanol is its use as a key feedstock in the production of biodiesel fuel. Biodiesel is generally made when fats and oils are chemically reacted with an alcohol, typically methanol (10-15% by volume), and a catalyst, typically sodium or potassium hydroxide (i.e., lye), to produce Fatty Acid Methyl Ester (FAME), or biodiesel.

The Energy Independence and Security Act (EISA) of 2007 (P.L. 110-140) added a specific mandate for biomass-based diesel as part of the program's Advanced Biofuels schedule. The biomass-based diesel requirement was to begin in 2009 with 500 million gallons. EISA required EPA to revise the current RFS regulations to ensure these new mandates are implemented. Unfortunately, EPA has yet to issue final rules largely due to the complicated and controversial lifecycle analysis being conducted as part of the RFS-2 regulations, which, as described further below, still requires substantial reconsideration. This has delayed implementation of the biomass-based diesel requirement, which has adversely affected the biodiesel and methanol industries, by placing jobs at risk and undermining Congressional intent to promote a U.S. alternative fuels industry. Recognizing that EPA's proposed rule may not be finalized until the end of 2009 and may have an effective date beyond January 1, 2010, EPA must act now to effectuate Congressional

intent and implement the 2009 volume mandate for biomass-based diesel (and, if necessary, the 2010 requirement). Biodiesel has been shown to have reduction in lifecycle greenhouse gas (GHG) emissions compared to petroleum diesel by well over 50%. Existing biodiesel facilities which meet the RFS-2 requirements with existing feedstock sources should not be unfairly penalized for assumptions related to international land use changes. Indeed, EPA has already indicated that obligated parties will be able to use 2009 biodiesel and renewable diesel program credits or “RINs” (Renewable Identification Numbers) to meet the RFS-2 requirements. EPA should grant this relief in the form of an interim final rule that codifies this finding and that would ensure the biomass-based diesel requirement is being met until the entire RFS-2 program is finalized and becomes effective. At a minimum, EPA must provide notice that 2009 biodiesel RINs are valid and will be required to show compliance with the RFS-2 to fulfill Congressional intent and provide legal certainty to the industry.

While the Methanol Institute supports having the RFS-2 regulations enforceable beginning January 1, 2010, so that the biomass-based diesel requirements are implemented, the program still must be workable and practical, keeping Congress’ intent in mind. EPA should use its regulatory authority to exempt biodiesel facilities that were placed in service prior to December 19, 2007, the date of enactment of EISA, from being unfairly penalized for assumptions related to international land use changes that cannot be validated with credible science and are unrelated to U.S. biodiesel production. The following issues highlight our concerns with the proposed rule and must be incorporated into EPA’s final regulations for the RFS-2 program:

- 1. Existing US Biodiesel Production Will Have No Land Use Changes and Has Well Over 50 Percent Reductions in GHG Emissions.** The US biodiesel industry has been steadily growing over the past several years with 690 million gallons in production in 2008. Existing feedstock sources are already available to meet this production level (and even additional production as noted below). As such, no land use changes, and therefore no significant emissions from those changes, can be associated with existing production. Indeed, in passing the EISA, Congress understood that existing production of renewable fuels provided substantial reductions in GHG emissions compared to baseline petroleum and sought to preserve those reductions. All lifecycle analyses, including EPA’s without international land use changes, show well over 50 percent reduction in emissions. There is ample support, therefore, for EPA to essentially grandfather existing facilities by deeming these facilities to be in compliance with the 50 percent reduction requirement.
- 2. The Lifecycle Greenhouse Gas Methodology for Biodiesel is Flawed.** A primary concern within the proposed rule is the uncertainty and speculation associated with EPA’s lifecycle GHG analysis of biofuels, including the methodology relating to significant indirect emissions. We are concerned by the following elements of EPA’s lifecycle analysis:
 - **EPA methodology is not ready to be used for purposes of regulating biofuels.** EPA’s method of lifecycle analysis, which utilizes various models and incorporates indirect emissions from land use changes, is not widely accepted. As such, and until a reasonable level of scientific consensus is achieved, the methodology should not be used to regulate biodiesel.
 - **International land conversion.** EPA assumptions regarding international land use changes associated with U.S. biodiesel production do not reflect the real world. EPA assumes increased U.S. biodiesel production will lead to land conversion in South America. If this assumption were correct, Brazilian soybean acreage would have increased from 2004 through 2008, a time in which U.S. biodiesel production increased from 25 million to 690 million gallons. During this time, however, Brazilian soybean acres actually decreased by 1.5 million hectares.

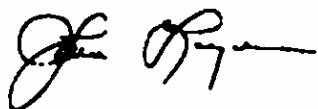
- **Nitrogen fixed in soil by soybeans.** EPA's GHG emissions methodology contains a major error regarding direct emission calculations for nitrogen. The 2006 Guidelines for National Greenhouse Gas Inventories by the Intergovernmental Panel on Climate Change (IPCC) concludes that nitrogen fixed in soil by soybeans should not be considered a GHG emission. EPA, however, does not incorporate the IPCC's updated nitrogen findings and thus attributes excess nitrogen emissions to soybean cultivation. This error reduces the GHG score for soy biodiesel by more than 20 percent.
- **Inaccurate data and assumptions.** Outputs from lifecycle analysis models are only as good as their inputs. Unfortunately, much of the data and assumptions contained within the nine models used by EPA are inaccurate. Examples include:
 - Energy balance data used by EPA is out of date.
 - Co-product allocations for glycerine were not incorporated.
 - Global market drivers for feedstocks, like soybeans are not included.
- **Petroleum Baseline.** EPA's analysis does not account for the fact that biodiesel is reducing and delaying the need for diesel derived from high carbon sources of crude oil such as Canadian tar sands. In addition, the agency's analysis compares estimated future direct *and* indirect GHG emissions for biodiesel to direct (only) emissions for petroleum. This dramatically reduces biodiesel's GHG benefits compared to petroleum and is an obvious violation of a basic scientific principle, that comparative analysis contains the same comparative criteria.
- **EPA's baseline for biodiesel.** To estimate international land use changes, EPA's analysis looks at the incremental change in biodiesel production based on two scenarios. However, EPA's approach establishes an artificially low production baseline, and does not accurately account for increasing crop yields and production efficiencies. The agency utilized a 2007 Energy Information Agency analysis that underestimates U.S. biodiesel production. In addition, multiple state policies and fleet requirements will be implemented between 2008 and 2022. These use requirements will increase the baseline volume of biodiesel that will be used regardless of the RFS-2 program. The EPA also penalizes the biodiesel industry by not considering new technology regarding fats and oils production. Sources such as camelina, winter canola, and algae are not taken into account. In addition, higher yielding oilseed technology has not been fully incorporated. Thus, EPA overestimated potential indirect land use change associated with vegetable oil based biodiesel.
- **GHG emissions depreciation timeline.** The GHG emissions from biodiesel derived from virgin vegetable oils should be depreciated over 100 years, as EPA has proposed, rather than the 30 years some have suggested. Historical data indicates that land converted to agricultural production tends to continue in that purpose for at least a century. Dramatic innovation is not occurring in the engine manufacturing industry in a way that suggests that heavy duty liquid transportation fuels will no longer be needed in as little as 30 years, or any remotely similar timeframe. Additionally, 100 years is a modest scope of time when you consider that the greenhouse gases that are being released by the burning of fossil fuels took the Earth millions of years to capture and sequester.
- **Discount rate should be eliminated.** EPA should eliminate the arbitrary 2 percent discount rate applied to the carbon payback of biofuel use. Discounting is an economic consideration and should not be applied to physical emissions. Emissions will cost more in the future and not less, so discounting them to say they are worth less in the future is incorrect. Biofuel production has shown a steady trend of decreasing carbon emission and increasing carbon sequestration and payback for land conversion.

- **EPA’s characterization of the impact of land use changes from soy biodiesel is inaccurate.** In Section VI. c. d. of the preamble, it is stated that “the impact of any land-use change tends to be magnified with soybean biodiesel.” The statement is justified by asserting that soybeans have a low gallon-per-acre yield compared to corn ethanol. This statement is simply false. For this to be true, soybean oil used for biodiesel must require additional soybeans to be grown somewhere else in the world to replace the oil used for biodiesel. Everywhere in the world, soybeans are grown primarily for the demand created by the protein meal, which comprises 80 percent of the bean. By-products do not drive supply responses and soybean oil for biodiesel does not drive planting decisions for farmers. If it did, then farmers would plant crops, other than soybeans, that produce more oil per acre. This economic reality invalidates EPA’s link between use of soybean oil for biodiesel and magnified land use change impact. We strongly urge EPA to correct this statement in its final rule.
3. **Proposed Biodiesel Pathway is Unworkable.** After concluding biodiesel from virgin vegetable oils does not qualify for the program, the agency attempts to restore it, in part, by creating a pathway for compliance purposes whereby virgin vegetable oils can be combined with waste oils in a 52-48 percent ratio. This is unworkable from a practical perspective. Instead, the EPA should recognize that U.S. feedstock supplies naturally produce a feedstock mix that, even when using EPA’s low GHG values, meets the thresholds for Advanced Biofuels. Moreover, to the extent necessary, EPA should use its authority and adjust the 50 percent reduction requirement downward to 40 percent to ensure US biodiesel can meet the biomass-based diesel requirements, as intended by Congress.
 4. **Regulatory Burden.** The proposed rule includes many new requirements which appear to offer little or no regulatory benefit while adding significantly to biodiesel producers’ compliance burdens. Since most producers are small businesses, many are incapable of complying with these extremely complex regulations. Therefore, we recommend working with the National Biodiesel Board to simplify or eliminate registration, certification, and reporting requirements that are impractical and burdensome.
 5. **Maintain a Role for Renewable Biomethanol.** In addition to methanol's role as an essential feedstock for biodiesel fuel production, methanol can also be a valuable biomass-derived fuel with applications in both light-duty and heavy-duty vehicles. By some estimates, a ton of cellulosic biomass can be gasified using mature and commercially available technology to produce as much as 165 gallons of biomethanol, well beyond the projected yields for most second- and third-generation cellulosic ethanol technologies. Both low level (M-5 to M-15) and high level (M-70 to M-100) methanol fuel blends have been successfully employed in cars, buses and trucks operated in the U.S. and around the world. Significantly, China blended over one billion gallons of methanol in transportation fuels last year. Today, companies such as Range Fuels, Chemrec and BioMCN are commercializing technologies to produce biomethanol from a range of renewable feedstocks. Biomethanol produced from renewable resources such as forest thinnings, municipal solid waste, and black liquor is expected to achieve lifecycle greenhouse gas emissions reductions well beyond those of currently available fuels. Biomethanol can also make an important contribution to the achieving the mandated goals of the Renewable Fuel Standard. According to a joint DOE/USDA report, U.S. forestland and agricultural land, the two largest potential biomass sources, represent over 1.3 billion dry tons per year of biomass potential – enough to produce biofuels meeting more than one-third of the current demand for transportation fuels. Using mature gasification technology, one ton of biomass can be used to produce 165 gallons of methanol. *The production of 10 billion gallons of methanol would require 60 million tons of biomass, or less than 5% of the biomass production potential.* As the Agency completes its rulemaking process on RFS-2, we urge you to consider the future role of biomethanol as an important element of the U.S. transportation fuel pool.

While we recognize EPA's efforts in developing the proposed rule, we believe that changes are necessary to ensure a workable and practical program that fulfills the intent of Congress to move away from petroleum-based fuels and toward renewable fuels. The biomass-based diesel requirement is an integral part of this program, and we urge EPA to ensure its implementation through an interim rule, as necessary, while it continues to work on a final rule.

Once again, we appreciate the opportunity to comment on this rule. Thank you for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read "John Lynn", with a long horizontal flourish extending to the right.

John Lynn
President & CEO