

Richard Moskowitz
Vice President and Regulatory Affairs Counsel

September 25, 2009

Air and Radiation Docket and Information Center
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue N.W.
Washington, DC 20460

Via: <http://www.regulations.gov>

RE: Regulation of Fuels and Fuel Additives:
Changes to Renewable Fuel Standards Program (EPA-HQ-OAR-2005-0161)

To Whom it May Concern:

The American Trucking Associations (“ATA”) appreciates the opportunity to provide comment on the impact of the U.S. Environmental Protection Agency (“EPA”) notice of proposed rulemaking entitled *Changes to Renewable Fuel Standards Program* (hereinafter “Proposed Rule” or “RFS2”).¹ As the national representative of the trucking industry, ATA and its members are interested in matters affecting the diesel fuel upon which this industry depends.²

ATA is committed to reducing the trucking industry’s carbon footprint. ATA has enacted a sustainability plan that could reduce annual carbon emissions by more than 90 tons (roughly 20% of the trucking industry’s carbon emissions).³ Notwithstanding our demonstrated commitment to reducing the trucking industry’s carbon emissions, we are reluctant to support the RFS2, as proposed. For the reasons set forth herein, ATA recommends that EPA promulgate a rule that ensures that all diesel fuel sold comply with the ASTM-International (“ASTM”) D975 standard applicable to on-road diesel fuel.

¹ See 74 *Federal Register* 24904 (May 26, 2009).

² ATA is a united federation of motor carriers, state trucking associations, and national trucking conferences created to promote and protect the interests of the trucking industry. Directly and through its affiliated organizations, ATA encompasses over 37,000 companies and every type and class of motor carrier operation.

³ A copy of ATA’s sustainability recommendations may be viewed through the following link:
<http://www.trucksdeliver.org/recommendations/index.html>

ATA also offers a proposed solution for dealing with the scientific uncertainty surrounding the indirect carbon emissions associated with soy-based renewable fuels. We address each of these issues below.

A. ASTM D975

Although diesel consumers such as the trucking industry are not obligated parties under the RFS2, they will be impacted by this Proposed Rule. Motor carriers have made enormous investments in heavy duty diesel engines. These engines were designed and built to run on diesel fuel that meets the ASTM D975 fuel specification. Indeed, engine manufacturers require the use of fuel meeting this ASTM D975 standard in order to preserve warranty claims. Unfortunately, this rule does not require that fuel used to satisfy the biomass-based diesel portion of the mandate comply with ASTM D975. This oversight must be remedied to avoid potential damage and operating challenges for the legacy fleet. Indeed, this issue will become increasingly significant as new fuels are developed and new feedstocks are utilized.

Last year, ASTM-International approved a modification to the on-road diesel fuel standard (*i.e.*, ASTM D975), which will facilitate the use of biodiesel in blends up to five percent (B5). Five percent of the diesel fuel consumed by the U.S. trucking industry is 1.95 billion gallons – almost double the amount mandated by RFS2.⁴ As such, requiring compliance with ASTM D975 will not impede the ability to achieve the biomass-based diesel targets under RFS2. For this reason, there is no reason that EPA should not require fuel sold in the United States to meet this universally accepted standard.

B. Impact of High Percentage Biodiesel Blends

As written, the Proposed Rule may result in certain obligated parties distributing blends of biodiesel that exceed five percent. These higher biodiesel blends do not meet the ASTM D975 standard.⁵ While renewable diesel that meets the ASTM D975 standard is expected to perform comparably to today's ultra low sulfur diesel ("ULSD") fuel, first generation biodiesel has been shown to present operational challenges for the trucking industry as the blend rate increases. We discuss these operational challenges below:

⁴ ATA estimates that the trucking industry consumes approximately 39 billion gallons of diesel fuel annually, while the total U.S. diesel fuel market is approximately 50 billion gallons.

⁵ ASTM also developed a standard for B20 blends (ASTM D7467), but due to the operational challenges and costs presented by these higher percentage blends, the trucking industry does not support the use of biodiesel in blends exceeding five percent.

1. Fuel Economy and Cost Differentials

High percentage blends of biodiesel cost more than petroleum-based diesel fuel (see discussion at section C, *infra*) and have a lower energy value, requiring more fuel to be purchased to perform an equivalent amount of work.

Neat biodiesel (B100) has a lower energy content than No. 2 diesel. No. 2 diesel fuel typically contains about 140,000 BTUs per gallon, while biodiesel made from vegetable oil typically contains about 130,000 BTUs per gallon, which results in an energy reduction of approximately seven percent (7%). There is insufficient data on the impact that low-percentage blends of biodiesel have upon fuel economy.

2. Cold Weather Performance

High-percentage blends of biodiesel gel at a higher ambient temperature than petroleum-based diesel and may cause trucks to become stranded in cold weather. Petroleum diesel fuels have both pour points and cloud points (the temperature at which a cloud or haze of wax crystals first appears and separates from the fuel) well within the range of cold temperatures at which they might be used. Biodiesel has the same issues, but at even higher ambient temperatures. The cloud point for biodiesel will vary based on the type of feedstock used. Whereas No. 2 diesel typically gels at 16°F, soy-based biodiesel gels at 32°F, and biodiesel derived from animal fat gels at 68°F. Users of a 20 percent biodiesel blend (B20) will reduce the base fuel cold weather performance by 5 degrees. Anti-gelling products, heating systems for fuel tanks and blending with No. 1 diesel fuel have been used to prevent gelling, but each of these options adds to operating costs.

3. Engine Performance and Manufacturer Warranties

High-percentage blends of biodiesel could create difficulties with manufacturer warranty claims – most heavy-duty truck engine manufacturers do not recommend biodiesel in blends exceeding B5. While there are exceptions to this rule, even those engine manufacturers that have issued public statements in support the use of B20 blends restrict the recommendation to certain model years and classes of engines.⁶

High-percentage biodiesel blends can cause a variety of engine performance problems, including filter plugging, injector coking, piston ring sticking and breaking, elastomer seal swelling and hardening/cracking, and severe engine lubricant degradation. Additional testing is needed to determine whether these operational issues are present at low-percentage blends used over an extended period of time. According to the Engine Manufacturers Association (“EMA”), biodiesel blends up to a maximum of

⁶ See e.g., Cummins, Inc., *Biodiesel FAQ*
http://www.everytime.cummins.com/every/customer/biodiesel_faq.page

B5 should not cause engine or fuel system problems, provided the biodiesel used in the blend meets the requirements of ASTM 6751. EMA recommends that the conditions of seals, hoses, gaskets, and wire coatings should be monitored regularly when biodiesel fuels are used. Older trucks may require upgraded components to ensure trouble-free operation.

Individual engine manufacturers determine what implications, if any, the use of biodiesel fuel has on the manufacturers' commercial warranties. Engine manufacturers warrant their engines for "materials and workmanship." An engine company will cover a fault with an engine part or with engine operation within the prescribed warranty period, if the fault is due to an error in manufacturing or assembly. Typically, an engine company will define what fuel the engine was designed for and will recommend the use of that fuel to their customers in their owners' manuals. While truck and engine manufacturers do not warrant the fuel, most indicate that biodiesel blends of up to B5 (providing the quality specifications are met) should not create operational issues for their products. If higher percentage blends of biodiesel are used and engine malfunctions can be traced back to the use of biodiesel, then the manufacturers will deny warranty claims. This results in a transfer of risk to the end-user, who may have refueled at various locations and not know where the off-spec or poor quality fuel was purchased.

4. Solvent Issues

Another operational challenge presented by biodiesel is that biodiesel blends that exceed five percent tend to act like a solvent and may dislodge sediment that naturally accumulates in truck fuel systems, requiring an unanticipated fuel filter change in advance of regularly scheduled maintenance. This could be a significant issue and cost for over-the-road trucks, which often travel far from their base of operations.

5. Distinguishing On-Road and Off-Road Vehicles

It is important to distinguish between off-road diesel fuel, which is used in vehicles that do not travel far from their base of operations, and on-road diesel fuel, which is used by the commercial trucking industry in vehicles that travel hundreds of miles away from their base of operations. Cold weather performance and unscheduled fuel filter changes are manageable issues for most off-road engine applications; while over-the-road trucks using on-road diesel fuel may have difficulty overcoming the operational challenges presented by biodiesel blends that exceed B5. For these reasons, we request that EPA draw a distinction between on-road and off-road diesel fuel and impose a five percent cap on biodiesel used in on-road vehicles.

The five percent biodiesel cap for on-road diesel fuel may be waived for state and municipally owned vehicles. Much like off-road engines, these vehicles seldom travel far from their base of operations and are much better equipped to confront the operational challenges posed by biodiesel blends that exceed five percent. Moreover, these vehicles do not have to operate in a competitive environment similar to over-the-

road trucking, where increases in the price of diesel fuel could drive companies out of business.

C. The Debate Over Indirect Carbon Emissions

ATA has monitored the debate over indirect carbon emissions and its potential impact upon the use of soy-based biodiesel under RFS2. We strongly believe that EPA's decisions on this matter must be based upon sound science and that EPA cannot ignore indirect carbon emissions from fuels used to satisfy the various RFS2 mandates. The failure to include indirect carbon emissions could ultimately require the imposition of additional carbon offsets from other sources in order to meet any future government-mandated carbon reduction goals.

To the extent that EPA does not have enough information to quantify the lifecycle carbon emissions of biodiesel from various feedstocks, we recommend that EPA temporarily allow domestically produced soy-based biodiesel to be used to meet the biomass-based diesel requirements under RFS2. This will ensure that the RFS2 statutory mandates are achievable in the near term. Once EPA obtains scientifically-defensible data on soy based biodiesel's lifecycle emissions, EPA should address the issue in a future rulemaking. The decision to exclude the use of soy-based biodiesel from the biomass-based diesel mandate under RFS2, could pose a significant supply problem for consumers, as biomass-based diesel derived from other feedstocks may not be available in sufficient quantities.

* * * * *

For the reasons set forth herein, it is critically important that EPA ensure that all on-road diesel fuel sold comply with ASTM D-975 and restrict the sale of high percentage biodiesel blends that do not meet this standard. ATA believes that EPA should include the indirect carbon emissions associated with the use of renewable feedstocks, while ensuring that domestically produced soy-based biodiesel be allowed to qualify under the biomass-based diesel category until EPA can quantify the impact of any indirect emissions associated with the production of this biofuel.

If you have any questions concerning these comments, please contact the undersigned at (703) 838-1910.

Respectfully submitted,



Richard Moskowitz
Vice President & Regulatory Affairs Counsel