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## MEMORANDUM

**TO:** PMAA State Association Executives E-06-5  
**FROM:** Holly Tuminello, Vice President  
**DATE:** March 3, 2006  
**RE:** Ultra Low Sulfur Diesel Update

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As you know by now, beginning this summer the world of diesel marketing will dramatically change with the introduction of the new ultra low sulfur diesel (ULSD). About a year ago, PMAA previously published a lengthy overview on the new rule. The following is an attempt to simplify this rule to focus primarily on the jobber's role in this major fuel transition.

### **When does this rule become effective?**

On June 1, 2006, at least 80 percent of the on-road fuel being produced by refiners will be ULSD, diesel that contains no more than 15-ppm sulfur. The remainder of the on-road diesel fuel produced will be the same fuel that is produced today for on-road use, which has a maximum of 500-ppm.

**For petroleum marketers, the rule will be effective by October 15, 2006.** By that date, marketers who supply or sell diesel at retail, or to fleets or other end-users, must identify the fuel they are selling. If it is sold at retail, dispensers must be labeled reflecting which fuel is being sold. Also, product transfer documents must indicate which fuel is being sold and delivered to marketers' customers.

Marketers may sell **EITHER** 15-ppm ULSD or 500-ppm fuel, or they may sell **BOTH** at their retail locations. If they choose to do so, they may continue to sell 500-ppm low sulfur diesel for highway use until October 1, 2010. There is no requirement that marketers offer both grades of fuel. In many areas of the country, the decision of what marketers sell will be driven by what is available. Marketers should begin checking with their terminals to determine what fuels will be handled.

In June, 2010, all on-road fuel produced by refiners will be 15-ppm, and by October 1, 2010, all on-road fuel at retail must be 15-ppm.

**Can 15-ppm fuel be used in any diesel engine?**

Yes, it can. ULSD was created primarily to work in concert with new diesel engine emissions specifications, which are going into effect in the 2007-model year vehicles. However, the fuel can be used in any diesel vehicle. However, 500-ppm diesel cannot be used in 2007 and later vehicles. For that reason, marketers must take care to comply with EPA pump labeling requirements, which are included in this document.

**What happens if a driver of a new vehicle (2007 or later) misfuels with 500-ppm?**

The emissions of the vehicle will not meet EPA requirements. Repeated misfuelings could result in damage to the emissions equipment and could result in problems with some of the filters used in the emissions system. At this time, there has not been adequate testing to determine the extent of issues that could occur as a result of misfueling, but engine manufacturers have indicated that evidence of misfueling could result in warranties not being honored. End-users who intentionally misfuel are subject to civil penalties.

**The rule allows fuels to be “downgraded.” What does that mean?**

When a diesel fuel is downgraded, that would mean that the 15-ppm fuel would be sold as 500-ppm fuel. If a retailer sells both grades of diesel fuel at a retail location, he may downgrade an unlimited quantity of fuel. However, if a retailer only sells 15-ppm fuel, he is limited to downgrading only 20 percent of his fuel annually. If he sells only 500-ppm, he may not downgrade.

**How would a retailer downgrade?**

As an example, if a retailer sells only 15-ppm fuel, but is worried about potential contamination and decided to change the designation to 500-ppm, this would be considered a downgrade. When fuel is downgraded, the retailer must change the label on the tank and note the change on the Product Transfer Document. Marketers and/or retailers should set up some type of internal system to document and track these downgrades since retailers who sell only one type of fuel are limited to downgrading 20 percent of the fuel annually, as described above.

Only the party who has custody or title to the fuel may downgrade. Downgrading provisions are only in effect until May 31, 2010.

The same downgrading rules apply to sales to wholesale purchaser-consumers, such as fleets.

**Why are there limitations to the amount of fuel that can be downgraded?**

EPA's goal with the diesel sulfur rule was to ensure that ULSD is widely available. If unlimited amounts of fuel were downgraded to 500-ppm, drivers of vehicles with 2007 (and later year) engines would have difficulty finding the required 15-ppm fuel.

### **Are there record keeping requirements?**

Yes. Product transfer documents (PTD), which are commonly referred to as invoices or bills of lading, must be maintained by all parties in the distribution chain for 5 years. PTDs are required each time fuel is transferred throughout the distribution chain, except for when fuel is dispensed into motor vehicles at a retail location or wholesale purchaser-consumer facility. PTDs must provide specific information including:

- The name and address of the transferor and transferee;
- The volume of the diesel being transferred;
- The designation of the fuel (i.e. for use in motor vehicles; nonroad equipment; locomotive, marine equipment; as appropriate);
- The sulfur content of the fuel.

### **Are there special handling procedures required for ULSD?**

Common carriers and petroleum marketers that haul their own product must take care to avoid contamination. Petroleum marketers who contract with common carriers should inquire about their carriers' fuel handling procedures. Additionally, marketers who haul their own product should make sure that they sequence products to minimize contamination. PMAA has already heard reports that in some areas, terminals have advised their customers that they would like trucks to be cleaned prior to loading or for compartments to be dedicated to ULSD. PMAA is currently participating in a broad petroleum industry task force that is developing some recommended practices for truck loading and product sequencing. That information will be available shortly. PMAA will release this information, along with detailed information on quality assurance programs, as soon as it is finalized.

### **When do the non-road low sulfur requirements kick in?**

The non-road ULSD rules are effective in 2007. Beginning June 1, 2007, the refiners will begin producing most non-road fuel at 500-ppm, and by 2010, most non-road fuel will be ultra low sulfur diesel, 15-ppm. However, during the transition period from 2007 to 2010, both 500-ppm and some high sulfur diesel (greater than 500-ppm) will be produced and sold as non-road. Because of this flexibility during these transition years, EPA will not enforce the downstream standard. However, by October 1, 2010, all non-road diesel fuel at retail sites, bulk plants and end user tanks must meet **at a minimum** the 500-ppm standard. High sulfur diesel (greater than 500-ppm) may no longer exist in the fuel distribution system after October 1, 2010, with the exception of some locomotive and marine fuel. PMAA will provide more detailed information on the non-road rule as the implementation date gets closer.

### **What are the fuel dispenser labeling requirements?**

The following labels are required for compliance with the ULSD highway rule. Labels should be posted in a conspicuous place on the dispenser, with legible block letters in a color that contrasts with the background color. Also, EPA recommends a 36-point bold font.

- **HIGHWAY FUEL PUMP LABELS**

For pumps dispensing 15-ppm highway diesel, the following label is required from June 1, 2006-May 31, 2010:

**ULTRA LOW SULFUR DIESEL FUEL (15-ppm Sulfur Maximum)**

*Required* for use in all model year 2007 and later highway diesel vehicles and engines.

Recommended for use in all diesel vehicles and engines.

For pumps dispensing 500-ppm diesel highway fuel, beginning June 1, 2006, labels should read as follows:

**LOW-SULFUR HIGHWAY DIESEL FUEL**

**(500-ppm Sulfur Maximum)**

**WARNING**

Federal law *prohibits* use in model year 2007 and later vehicles and engines. Its use may damage these vehicles and engines.

This label may no longer be posted after September 30, 2010 as dispensing 500-ppm diesel will be prohibited at that time.

- **OFF-ROAD PUMP LABELS**

The label on pumps dispensing off-road diesel fuel that does not meet motor vehicle fuel standards is required **from June 1, 2006 until May 31, 2007** and should read as follows:

**NON-HIGHWAY DIESEL FUEL (May exceed 500-ppm Sulfur)**

**WARNING**

Federal Law prohibits use in any highway vehicle or engine.  
Its use may damage these vehicles and engines.