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## MEMORANDUM

June 30, 2006

TO: **PMAA State Executives**

FROM: **Holly Tuminello, Vice President**

RE: **SIMPLE STEPS TO ACHIEVE ULSD COMPLIANCE**

### **OVERVIEW**

PMAA has issued several memorandums about the complexities facing jobbers and retailers dealing with the federal Ultra Low Sulfur Diesel (ULSD) program. Now that the transition to ULSD is underway, this memorandum is designed to suggest simple steps jobbers and retailers can take to achieve and maintain compliance.

To keep compliance concepts and operations simple, please consider these basic suggestions which will be discussed more fully later in this memorandum.

- After October 15, 2006, do not post a ULSD (15-ppm sulfur) label on a retail dispenser unless you are confident the diesel is 15-ppm or less. You are not *required* to sell ULSD until 2010; however, if you sell it after October 15, 2006, it must not exceed 15ppm. Very few trucks and cars will need ULSD during 2007.
- Rely on the terminals to provide ULSD that is below 15-ppm and maintain all Product Transfer Documents (PTDs) for five years.
- If you operate tank trucks, institute practices that will minimize increasing sulfur content of ULSD during transportation.

### **ONLY CHANGE DISPENSER LABELS WHEN YOU ARE READY**

To some extent, there is a misunderstanding among marketers about the October 15, 2006 ULSD compliance deadline. No jobber or retailer is required to sell ULSD until 2010. If available, marketers can continue to sell Low Sulfur Diesel (LSD, 500-ppm sulfur) for

on-road purposes until 2010. However, because refiners are required to produce at least 80 percent ULSD, LSD supplies will diminish over time and at some point, ULSD will be the only on-road diesel available. Also, LSD supplies will diminish because refiners, terminals and marketers are limited in how much product they can downgrade from ULSD to LSD.

PMAA recommends that you not change dispenser labels to ULSD until you are confident the product is 15-ppm sulfur or less. It will take three to five complete tank turnovers of ULSD to clear out leftover sulfur from LSD. Retailers are not required to test ULSD; however it makes sense to conduct at least one test at a retail location prior to posting the ULSD label.

It is important to remember that on October 15, if you are unable to make the switch to ULSD because inconsistent supply did not allow adequate time to convert tanks, you may downgrade ULSD until you have both a consistent supply of ULSD and you are confident that you have allowed for enough tank turnovers of it so that the risk on contamination is minimized. However, keep in mind, that you are limited to downgrading only 20 percent of your on-road volume during the period of October 15, 2006 to May 31, 2007. Subsequent downgrading periods are: June 1, 2007 through June 30, 2008; July 1, 2008 through June 30, 2009; and July 1, 2009 through May 31, 2010.

### **COMMUNICATE WITH YOUR TERMINALS**

A cooperative relationship between terminals and marketers is an essential component to ULSD quality assurance. If terminals are handing over the product at the 15-ppm maximum limit, you are taking a risk and must handle the product with great care. If at all possible, you should avoid loading product at terminals offering ULSD at the 15-ppm maximum. Terminals most likely will not know the exact sulfur content of each load; however, they will have some testing averages that will demonstrate to marketers the typical ULSD ratings they are consistently achieving. PMAA believes marketers should ask terminals to keep them informed on their ongoing testing results. If terminals are uncooperative and will not disclose to you their periodic test findings, you should note this fact and keep it on file. If terminals are having great success in keep sulfur levels low, this should be something they would proudly publicize to marketers. If you are unable to get satisfactory information, there is always the option to do some periodic sulfur testing of your own at the loading rack, as your truck is being loaded.

Marketers should also consult with terminals in advance to inquire about what procedures they will have in place to avoid increasing sulfur during product transfers. Will they have facilities in place where transport trucks can drain excess product prior to loading? Will they have any new requirements for trucks loading ULSD at their facilities? Marketers should document these conversations as a demonstration of their efforts to minimize increasing sulfur in ULSD.

## **TRANSPORTATION CONCERNS**

There are three options for marketers who wish to minimize contamination potential of ULSD:

1. Dedicate trucks for hauling ULSD
2. Contract ULSD hauling with a common carrier using dedicated trucks
3. Carefully sequence products and use great diligence in sequencing products prior to hauling ULSD

Should marketers opt to transport ULSD in their own fleet without dedicating and are consistently getting product that is below 15-ppm from terminals, they may consider product sequencing practices as described below. These must be implemented with the utmost caution as many of these practices that were developed were done so on the assumption that ULSD going over the rack would be 13-ppm or less. It is essential that drivers be trained on the contamination potential of ULSD, emphasizing that drivers must make every effort to make a **complete** drop of **all** loads. Furthermore, it is advisable that prior to making deliveries into ULSD compliant tanks, marketers should conduct some sulfur testing of loads to insure that these product sequencing procedures are being followed properly and that residual contamination is not occurring.

## **PRODUCT SEQUENCING SUGGESTIONS FOR LOADING ULSD**

When clear ULSD is preceded by gasoline (<95-ppm sulfur), clear ULSD, clear ultra low or low sulfur kerosene, clear low sulfur diesel:

1. **EMPTY:** Prior to loading trucks with ULSD, compartments and discharge piping should be as empty as possible. Trucks should be on level ground when emptied.
2. **DRAIN DRY:** Additionally, once the compartment is empty, the driver should open the trailer's internal valve to release any residual product into a metal bucket and product should be disposed of properly. Maximum product retained in truck is no more than one-half (1/2) gallon. (If it is not possible to eliminate residual product in truck to this level, clean or flush as described below).

**(NOTE:** Flat bottom trucks tend to retain residual product and require extra effort to drain completely. It may be advisable to do some sulfur testing after loading ULSD to determine if the truck is retaining enough product to contaminate loads).

When clear ULSD is preceded by dyed ULSD; dyed LSD; dyed or clear high sulfur diesel; dyed or clear high sulfur kerosene; heating oil; small refiner (SR) or geographic phase-in area (GPA) gasoline >95-ppm\* sulfur:

**CLEAN OR FLUSH:** Empty and drain dry as described in steps one and two above, then flush all compartments with at least 10 gallons of the product to be loaded or at least enough product to cover the internal valve of each compartment, then empty through discharge piping. Another option is to have the compartments and piping steam cleaned.

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\* In areas with GPA or SR gasoline (primarily in the West), some evidence suggests that "empty" and "drain dry" procedures may be sufficient prior to hauling ULSD. Marketers who supply areas with GPA or SR gasoline should conduct sulfur testing of loads to determine which procedures to utilize.

**DO NOT LOAD - STEAM CLEAN:**

Do not load ULSD after the truck has handled any of the products below unless the compartments, piping, meters and hoses are emptied, drained and steam cleaned:

Aviation gasoline, lube oils, transmix, black oil, bunker fuel, Naptha.

**DELIVERY DOCUMENTATION**

The diesel sulfur rule requires labeling of dispensers as well as the retention of Product Transfer Documents. In addition, some marketers are considering development of a delivery log for each truck in their fleet, detailing all products hauled and efforts made to minimize contamination potential, such as “draining dry” or “flushing” of compartments and piping. Should EPA find a violation at retail, the marketer would then have additional records of the delivery, as well as the delivery that preceded it and actions taken to minimize contamination. Likewise, the log provides a marketer with the opportunity for making a continual review of product sequencing practices, which could provide important information when proper procedures are not followed, and minimize the risk of delivery of non-compliant product. It also involves drivers in an active role in documenting deliveries, reinforcing the message that drivers must diligently handle ULSD deliveries.

**SULFUR TESTING**

While there is no requirement for testing below the rack, testing is an element of a quality assurance program. Marketers wishing to implement periodic testing, particularly in the early days of the program, while not required, may do so as a way to verify the adequacy of their fuel handling procedures. A periodic sampling and testing program will help marketers to establish a defense to a violation found at a facility, whether a company owned and operated facility or a retail facility that a marketer supplies. Additionally, testing should be done prior to fully converting a retail tank to ULSD to verify that the tanks can receive and sell compliant ULSD. To be an effective element of a quality assurance program, marketers should determine a rate at which to test periodically. Another option considered by some marketers, is the maintenance of diesel samples, rather than testing, as a way to defend against potential violations. Marketers could retain samples of deliveries for a period of time after the delivery (with accompanying documentation about when and where sample was taken), so if a question was raised about the fuel delivered, marketers would have a sample that could be produced and tested.

To implement a sulfur testing program, marketers should contact an EPA-qualified lab. While marketers should first check with their state associations to determine if they have developed a testing program that meets EPA’s qualifications under §80.585, PMAA is aware of one national lab that has offered preferred pricing to PMAA members. Intertek Caleb Brett, headquartered in Houston, TX, offers testing ranging from \$85 for a single sample, to \$225 for a 4-sample kit. Marketers who wish to should contact the lab my do so by calling (713) 844-3261 and identifying themselves as a PMAA member.

The rule requires that all test results be maintained for five years. Should a violation be discovered, records of how the violation was handled should be maintained as well.

### **EPA ULSD TESTING AT YOUR FACILITY**

If a retail facility or bulk plant is visited by an EPA inspector, your staff should cooperate to the fullest extent possible. You should make certain that the inspector has proper credentials (government-issued identification) and is in fact a fully authorized agent of U.S. EPA. If you haven't done so, it is a good idea to train employees who run retail locations on how to respond to inspections and who in your company should be present during inspections.

If an EPA inspector takes samples of your ULSD, PMAA recommends that you take samples at the same time from that same dispenser and have it tested. By taking a sample at the same time, you will have the same information as EPA and can protect your company from mislabeled or mishandled samples. Additionally, because sulfur tests results may vary, it makes sense to have a second set of results to compare with those reported by EPA.