



Ultra Low Sulfur Diesel Overview

Dear Customer, as you may have seen in the branded diesel program materials you recently received, the US Environmental Protection Agency has mandated that beginning in June of 2006, 80% of all on-road diesel fuels produced by refiners must meet a 15 parts per million (ppm) specification for sulfur content versus the current sulfur content of 500ppm. The EPA's intended impact of this regulation is the widespread availability of 15ppm diesel fuel for on road vehicles. This regulation includes #1 and #2 on-road diesel fuels as well as any winter blends. Retail operators will have the option of selling either 15ppm or 500ppm diesel but will be required to post the sulfur content on the pumps for the consumer.

Coinciding with the material conversion is also a specification for engine manufacturers. All 2007 model year diesel engines for passenger cars as well as big rigs will be equipped with a new emission system similar to the catalytic converters on gasoline engines today. These new emission systems will be required to use 15ppm sulfur diesel. If a 2007 engine receives the wrong fuel the emission control device may be damaged and may need to be replaced. Industry estimates this repair will cost between two and three thousand dollars. It is for this reason that Shell prefers that all Branded Shell stations carry 15ppm Ultra Low Sulfur Diesel (ULSD).

"The information provided in this letter is not intended as, nor should it be construed as, legal/regulatory advice on a person's duty to comply with applicable ULSD laws and regulations. Any questions should be addressed to your consultants, attorneys, or regulators."

Immediate actions required at Retail sites by June 1, 2006

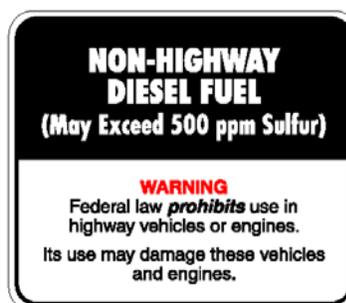
As part of the regulation mandating the use of ULSD, all services stations must affix a label to all dispensers in full view of the consumer, which will identify the sulfur content of the diesel fuel being dispensed. **The regulation requires that these labels be in place by June 1, 2006.** Shell Oil Products US ("SOPUS") and Motiva Enterprises LLC ("Motiva") have designed these labels with the appropriate regulatory language. The decals listed are also the same decals being suggested for use by API. These decals may be ordered from Mountain Commercial Graphics. Please refer to (**Exhibit A - RVI standards**) for the placement of these decals. For any location transitioning from 500ppm to 15ppm fuel these decals must be replaced with the 15ppm decals once the station is on test.



PN - 14887



PN - 14888



PN - 14889

These Diesel decals are available from Mountain Commercial Graphics

Phone 800.545.1442

Fax 713.895.1360 or 800.967.3986



Station RVI requirements for decals

The new ULSD requirements call for decals to be placed on each dispenser that identifies the sulfur content of the diesel fuel. These decals have been designed and the RVI standards have been set (See Exhibit A). Dates that the decals must be affixed to the dispensers are as follows:

June 1, 2006 all dispensers must be labeled as 500ppm unless the site has been converted to 15ppm by this date. Once a site is converted to 15ppm then the decal must be changed to reflect the 15ppm sulfur content.

California Implementation dates

- ⊕ June 1 - Refineries are required to ship a maximum of 15ppm.
- ⊕ July 15 – Terminals are required to ship 15ppm.
- ⊕ September 1 – Retail sites are required to meet the 15ppm specification if converting from 500.

Non-California Implementation dates :

- ⊕ June 1 - Refineries are required to ship a maximum of 15ppm.
- ⊕ September 1 – Terminals are required to ship 15ppm.
- ⊕ October 15 – Retail sites are required to meet the 15ppm specification if converting from 500.

Station Blend-down process

Using data from previous product conversions of this nature it is estimated that it will require at least 5 complete tank turns to blend down the sulfur level at the retail sites. See **(Exhibit B – Station Blend-down)**. Once a site receives its first load of 15ppm ULSD the fill boxes should be re-identified using the API standards listed in the section “**Service Station product fill identification**” of this document.

Record Keeping

- ⊕ All Product Transfer Documents (PTD) must be retained for 5 years.
- ⊕ Any 15ppm ULSD delivered to a service station with dispensers labeled as 500ppm is considered a downgrade of the 15ppm fuel by the EPA. Any downgrades from 15ppm to 500ppm must be tracked to insure that the site does not exceed 20% of its annual sales between June 1 and May 31 each year after the retail implementation date listed above. Should an EPA audit determine the site has exceeded this 20% rule, civil penalties could be imposed.



U.L.S.D. availability

Currently it is believed that ULSD will be available in almost every market by June 2006. However there will be markets where only 500ppm will be available. SOPUS and Motiva intend to sell only 15ppm fuel to branded sites as a branded fuel. Exceptions however will be reviewed on a case-by-case basis depending on available supply. Should a supply point carry 15ppm ULSD, then this will be the only branded diesel offered from this location. Should a supply point only carry the 500ppm on-road diesel fuel, then alternate supply points will be identified as a source for supply of 15ppm for the market. If no alternative source is found then the 500ppm will be offered as a branded fuel. Once a 15ppm ULSD becomes available the 500ppm will no longer be offered as a branded fuel.

Pipelines will handle both 15ppm and 500ppm on road diesel fuels. In some instances there may be areas where pipeline constraints or operational issues may prevent the supply of either 15ppm or 500ppm into a given market. As these areas are identified, SOPUS and Motiva will communicate to customers of the products to be offered at facilities in the affected markets. It is possible to have both 500ppm and 15ppm diesel fuel in any given market. As the industry converts to the 15ppm diesel fuel it is anticipated that supply of 500ppm diesel may become sporadic and may only be offered in specific markets. Please keep this in mind when deciding on which grade of diesel fuel to carry.

Liabilities

- Under the regulation the EPA has the right to fine any site that is identified as a location that sells 15ppm ULSD and that tests higher than the 15ppm specification. This fine is noted as \$32,500.00 per day, per violation that has occurred. The EPA assumes a 25-day liability for any offense.
- Any 15ppm ULSD delivered to a service station with dispensers labeled as 500ppm is considered a downgrade of the 15ppm fuel by the EPA. Any downgrades must be tracked to insure that the site does not exceed 20% of their annual sales between June 1 and May 31 each year after the retail implementation date listed above. Should an EPA audit determine the site has exceeded the 20% downgrade rule, civil penalties could be imposed.

Oversight testing program

As required by the ULSD regulation, SOPUS and Motiva will have a quality assurance sampling and testing program whereby Shell-branded sites offering ULSD will be randomly selected for sampling and testing. If testing shows the ULSD to contain greater than 18 ppm sulfur (15ppm plus the 3 ppm enforcement tolerance for participating in a testing program), then SOPUS or Motiva will notify the site to immediately stop ULSD sales until the fuel has been replaced with 15ppm ULSD. Shell wholesalers and retailers are not required to test the sulfur content of their fuel.



Tank Truck compartment HSD Residue handling

At present, industry is still unsure about how to handle potential contamination due to switch loading between higher sulfur products and ULSD. SOPUS and Motiva currently plan for split loading (carrying gasoline and ULSD) on the same truck to be allowed with certain guidelines. Carriers should also ensure that the previous load should not raise the sulfur level of ULSD more than 0.5ppm. For example, It is estimated that 5 gallons of 500ppm on road LSD would raise the sulfur content of a 1500 gallon trailer compartment of 14ppm sulfur ULSD by about 1.6ppm. Current industry estimates are that the ULSD will have a sulfur level of 13-15ppm at the time of loading. Please see **Exhibit C Truck Loading Sequence Chart**. The chart is a recommendation on product loading sequence to help protect the integrity of the fuel to be loaded.

Carriers are very concerned over the liability if ULSD is contaminated with higher sulfur products. Some carriers have discussed dedicating equipment and making milk runs to stations, while others have suggested they will have dedicated compartments on a truck for the ULSD. It is therefore recommended that you discuss with your carriers on how they will handle the movement of ULSD.

Cross Drop Handling

Any cross drop that occurs at a site where 500ppm fuel is delivered into a 15ppm tank will require a pump out of the site, or the dispenser must be relabeled. Shell company sites will not be allowed to go back to 500ppm once converted to 15ppm as there is a threat that consumers will identify a site as 15ppm and will not check the label prior to each purchase. Changing the site back to 500ppm would also require a second blend down process and would be subject to the 20% downgrade rule as noted in the record keeping section of this document.

Winter Diesel

We are currently working with our additive suppliers and ULSD diesel #1 blends to develop our best-cost option in regards to winter diesel. Please note that a site carrying a 15ppm ULSD fuel will require the addition of a ULSD #1 for winter blends. Kerosene and LSD #1 will not contain the proper sulfur level to be blended into the ULSD and would make the sites ULSD off specification.

Ultra Low Sulfur Diesel # 1

Ultra Low Sulfur Diesel #1 will be offered where available.



Material codes

Below are the material codes to be used by SOPUS and Motiva for the ULSD materials.

SAP MATERIAL	PRODUCT DISCRIPTION
26910	GN ULTRA LS CARB DIESEL 2 (S-15 ppm)
26934	GN CARB NRLM DIESEL 2 (S-15 PPM)
26957	BR ULTRA LS DIESEL 2 (2-15 PPM)
27100	GN ULTRA LS DIESEL FUEL 2 DYED (S-15 PPM)
27101	GN ULTRA LS DIESEL FUEL 2 (S-15 PPM)
41035	BR ULTRA LS PREM DIESEL 2 (S-15 PPM)
41036	GN ULTRA LS PREM DIESEL 2 (15 PPM) & Elim Dupe
41037	GN TX LOW EMISSION DIESEL 2 (S-15 PPM)
41038	BR TX LOW EMISSION DIESEL 2 (S-15 PPM)
41039	BR TX LOW EMISSION PREM DIESEL 2 (S-15 PPM)
41040	GN TX LOW EMISSION DIESEL 2 DYED (S-15 PPM)
41041	GN TX LOW EMISSION DSL 2 BLDSTK (S-15 PPM)
41042	BR CARB MV DIESEL 2 (S-15 PPM)



Service Station product fill identification

API is currently designing the product identification scheme for the fill boxes at the service station level. Below is the current proposed identification. Once a site begins receiving the 15ppm ULSD the fill box identifications should be changed to the new standard to prevent driver error.

DISTILLATES			
Ultra Low sulfur	Low sulfur		High sulfur
		Diesel	
		No. 1 fuel oil	
		No. 2 fuel oil	
		Kerosene	



Exhibit A - RVI standards

Dispenser Decals

Payment Zone

- Debit Decal
- Credit Card Decal

The credit card decal should be placed on the dial face of the dispenser as close to the credit card reader as possible. The decal must be set vertically and may not be placed on the dispenser column.

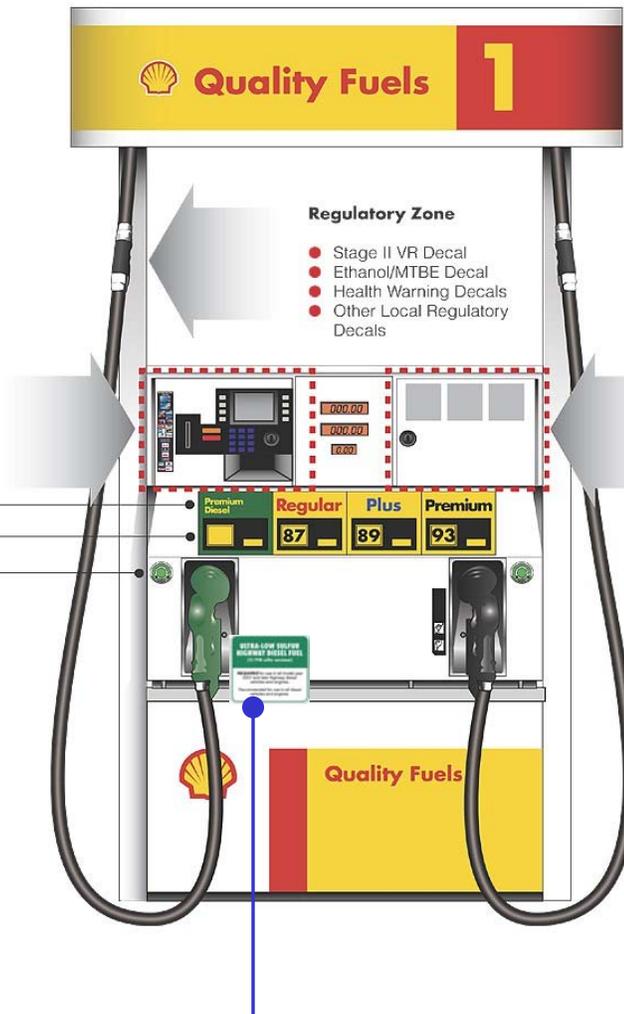
- RVI product banners
- Octane Decals
- States Weights & Measure Decal

Regulatory Zone

- Stage II VR Decal
- Ethanol/MTBE Decal
- Health Warning Decals
- Other Local Regulatory Decals

Warning Zone

- Drive-Off Decal
- Credit Card Fraud Decal
- Pre-Pay Decal



Diesel Labeling
Position label 1"
below top of nozzle
housing and 1/2" in
from the edge of
the housing.



Exhibit B - Station Blend-down

Converting A Retail Tank from 500ppm LSD to 15ppm ULSD:

Estimating the Size and Number of Receipts Required

Switching a tank from 500ppm Low Sulfur Diesel to 15ppm Ultra Low Sulfur Diesel requires a conversion process to ensure the diesel complies with the 15ppm sulfur standard before offering it for sale as Ultra Low Sulfur Diesel. The conversion can be completed by:

1. Completely pumping out the 500ppm LSD heel in the tank, and then accepting one receipt of 15ppm ULSD, **or**
2. Pulling down the 500ppm LSD inventory as low as possible, then refilling the tank as full as safely possible with a receipt of 15ppm ULSD, **then repeating this process with additional receipts until the tank contents have been diluted to 15ppm sulfur.**

The total number of ULSD receipts required to convert a tank using this 2nd option is highly dependent on the tank heel inventory before each ULSD receipt and tank inventory after each ULSD receipt. The following table and example, provides an estimate of how many total ULSD receipts may be needed to convert a 500ppm LSD tank to 15ppm ULSD service.

		Tank Heel Inventory Before Each Receipt (As a % of Tank Capacity)			
		5 %	10%	20%	30%
Tank Inventory After Each Receipt (As a % Of Tank Capacity)	20%	5	10	> 10	> 10
	30%	4	7	> 10	> 10
	40%	4	5	10	> 10
	50%	3	5	8	> 10
	60%	3	4	7	10
	70%	3	4	6	9
	80%	3	4	5	8
	90%	3	4	5	7

Example

1. Tank heel will be pulled down to 10% of the tank's total capacity before each 15 ppm ULSD receipt,
2. Tank will be refilled to 60% of the tank's total capacity with each 15 ppm ULSD receipt,
3. Four (4) ULSD receipts should convert the tank to 15 ppm ULSD.



Exhibit C - Truck Loading Sequence Chart

Shell/Motiva Truck Loading Sequence Chart

PRODUCT ON PREVIOUS LOAD	PRODUCT TO BE LOADED								
	Gasoline <95 ppm Sulfur*	Aviation Gasoline	Jet Fuel All types	High Sulfur Diesel 5000 ppm Sulfur (Dyed Red)	High Sulfur Diesel 5000 ppm Sulfur (Undyed)	Low Sulfur Diesel 500 ppm Sulfur (Dyed Red)	Low Sulfur Diesel 500 ppm sulfur (Undyed)	Ultra Low Sulfur Diesel 15 ppm Sulfur (Dyed Red)	Ultra Low Sulfur Diesel 15 ppm Sulfur (Undyed)
Denatured Ethanol	Empty	Drain Dry	Do Not Load Flush	Empty	Empty	Empty	Empty	Empty	Empty
Gasoline <95 ppm Sulfur*	Empty	Drain Dry	Do Not Load Flush	Empty	Empty	Empty	Empty	Empty	Empty
Aviation Gasoline	Do Not Load Clean	Empty	Do Not Load Flush	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean
Jet Fuel All types	Do Not Load Flush	Do Not Load Flush	Empty	Empty	Empty	Empty	Empty	Do Not Load Flush	Do Not Load Flush
High Sulfur Diesel Up to 5000 ppm Sulfur (Dyed Red)	Do Not Load Flush	Do Not Load Clean	Do Not Load Clean	Empty	Do Not Load Flush	Empty	Do Not Load Flush	Do Not Load Flush	Do Not Load Flush
High Sulfur Diesel Up to 5000 ppm Sulfur (Undyed)	Do Not Load Flush	Do Not Load Flush	Drain Dry	Empty	Empty	Empty	Empty	Do Not Load Flush	Do Not Load Flush
Low Sulfur Diesel Up to 500 ppm Sulfur (Dyed Red)	Do Not Load Flush	Do Not Load Clean	Do Not Load Clean	Empty	Do Not Load Flush	Empty	Do Not Load Flush	Drain Dry	Do Not Load Flush
Low Sulfur Diesel Up to 500 ppm Sulfur (Undyed)	Do Not Load Flush	Do Not Load Clean	Drain Dry	Empty	Empty	Empty	Empty	Drain Dry	Drain Dry
Ultra Low Sulfur Diesel Up to 15 ppm Sulfur (Dyed Red)	Do Not Load Flush	Do Not Load Clean	Do Not Load Clean	Empty	Do Not Load Flush	Empty	Do Not Load Flush	Empty	Do Not Load Flush
Ultra Low Sulfur Diesel Up to 15 ppm Sulfur (Undyed)	Do Not Load Flush	Do Not Load Clean	Do Not Load Clean	Empty	Empty	Empty	Empty	Empty	Empty
Fuel Additives <100 ppm Sulfur	Do Not Load Flush	Do Not Load Clean	Do Not Load Clean	Empty	Empty	Empty	Empty	Empty	Empty
Lube Oils	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean
Transmix/ Interface Mixture	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean
Naptha	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean	Do Not Load Clean
Definitions									
Empty	Unload previous product leaving the compartment and discharge piping. Inspect via sight glass, if trailer is so equipped, to make sure no product remains in								
Drain Dry	Unload product as in Empty. Open trailer's internal valve and drain all product to metal bucket or direct connection if available and dispose of properly								
Do Not Load Flush	Do not load the next product until all affected compartments have been flushed with at least 10 gallons the next product to be loaded. Cleaning can be also substituted for flushing								
Do Not Load Clean	Do not load the next product until all affected compartments, piping, meters and hoses are cleaned thoroughly (i.e. steam cleaning).								

*Small refiner gasoline may contain up to 450

These are guidelines and the use does not guarantee products will stay free from contamination from the previous cargo.

This chart does not address safety issues.

Trucks must meet all API RP 2003 and any applicable Shell/Motiva loading requirements

Drivers must comply with any terminal loading agreement requirements

These guidelines do not cover all steps in the process as terminal configurations, trailer design, etc. may vary.

Carriers and drivers still have the responsibility to protect their cargos during transport from any type of cross contamination.

This chart was generated as a result of Ultra Low Sulfur Diesel (ULSD) but also covers other product quality concerns.

Empty is normally done at the location where the previous cargo was delivered.

Drain dry is normally done at the terminal before loading of the current cargo, but also can be done at another location.

While empty is acceptable for EPA Tier 2 gasoline before ULSD, Drain Dry is preferred and encouraged to protect flash.

Small refiner gasoline may contain up to 450 ppm Sulfur. Trucks containing this product should be drain dried before loading ULSD