

Government - Industry - Consumers

# Clean Diesel Fuel Alliance

INFORMATION CENTER

Historical Document – The option to downgrade ULSD to highway LSD is no longer an option

## ULSD Downgrading

A general overview of the Clean Diesel Fuel Rules on downgrading as defined by the US EPA

It is the responsibility of each person to understand and follow EPA's rules.

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# What is Downgrading?

- Refiners and importers classify diesel according to its intended use
- **Downgrading** is where an entity changes the classification of 15 ppm sulfur highway diesel (ULSD) to 500 ppm sulfur highway diesel (LSD)
- **Re-designating/re-grading** – or moving highway diesel out of the highway pool (i.e. to non-road, locomotive & marine, or heating oil) is not considered downgrading in this regulation and is not subject to downgrading limitations
- Downgrading or re-designating ULSD (motor vehicle fuel) may occur if ULSD is sulfur contaminated or for product availability, pricing or other marketing reasons
- Mixing ULSD and LSD in an end user's vehicle fuel tank is not considered downgrading (vehicles with 2007 or later model year engines must use ULSD)

# Anti-Downgrading Provisions

- All diesel fuel facilities are subject to anti-downgrading provisions beginning October 15, 2006
  - Including pipelines, terminals, tank trucks, centrally fuelled fleets & retail stations
- Up to 20% of the diesel fuel a facility dispenses per compliance period may be ULSD that has been downgraded to highway LSD\*
- No limit on re-designations/re-grades of ULSD to non-road, locomotive & marine diesel or heating oil
- Anti-downgrading limitations only apply to #2 15ppm diesel fuel, not to #1 diesel (kerosene)

\* Subject to special provisions detailed on slide #7

# Anti-Downgrading Compliance Periods

- Oct. 15, 2006 - May 31, 2007 (7 ½ months)
- June 1, 2007 – June 30, 2008 (13 months)
- July 1, 2008 – June 30, 2009 (12 months)
- July 1, 2009 – May 31, 2010 (11 months)

# Who is Covered?

- Each facility is subject to the downgrading provisions and their own 20% downgrade limitation
  - Pipelines
  - Terminals
  - Tank Truck Operators
  - Retail Stations
  - Wholesale Purchaser-Consumers (i.e. Fleets)
    - Includes: private fleets, government fleets, farm or construction site tanks, and other private fuel facilities with a tank that exceeds 550 gallons.
- End users (including wholesale purchaser-consumers) may mix ULSD and LSD in a vehicle's fuel tank (note: vehicles with 2007 or later model year engines must use ULSD only)
- All highway non-road, locomotive & marine diesel fuel consumed in California must be ULSD and the anti-downgrading provisions do not apply.

# Recordkeeping

- All entities are required to keep records for five years and be able to submit them to EPA upon request (reproducible electronic copies are acceptable).
  - Including but not limited to:
    - Quality Analysis and/or Quality Control records
    - Product Transfer Documents
- Tank truck operators, retailers, & fleet operators are not required to submit reports to EPA

# Special Provisions for Retailers & Wholesale Purchaser-Consumers (fleets)

- Parties that sell or dispense both highway ULSD and highway LSD simultaneously **are exempt** from the downgrading limitations
- Parties that sell or dispense only ULSD **are exempt** from the downgrading limitations
  - If any highway ULSD is sold or dispensed as LSD, that fuel is subject to the 20% downgrading limitation
- Parties that sell or dispense only LSD are subject to the downgrading limitations
  - 20% of the highway LSD that they sell/dispense can be fuel that they received as ULSD and downgraded to LSD

# Downgrading Examples:

- Example 1: Location dispenses ULSD and, due to supply disruptions, has to temporarily purchase LSD
- Example 2: Location dispenses LSD and, due to supply disruptions, has to temporarily purchase ULSD
- Example 3: Location dispenses LSD only and spot buys ULSD to supplement inventory due to pricing disparity



# Example 1: Location dispenses ULSD and, due to supply disruptions, has to temporarily purchase LSD

Location's total dispensed volume for diesel is 800,000 gallons over the initial compliance period (thru May 31, 2007)

	<u>Purchased as LSD</u>	<u>Purchased as ULSD</u>	<u>Downgraded ULSD</u>	<u>Dispensed as LSD</u>	<u>Dispensed as ULSD</u>
Oct-06		100,000			100,000
Nov-06		100,000			100,000
Dec-06	15,000	85,000	40,000	55,000	45,000
Jan-07	100,000			100,000	
Feb-07		100,000	60,000	60,000	40,000
Mar-07		100,000			100,000
Apr-07		100,000			100,000
May-07		<u>100,000</u>			<u>100,000</u>
<b>TOTAL</b>	<b>115,000</b>	<b>685,000</b>	<b>100,000</b>	<b>215,000</b>	<b>585,000</b>

100,000 gal. ULSD was downgraded and dispensed as LSD or 14.5%

**Location is compliant with Anti-Downgrading Regulation**

## Example 2: Location dispenses LSD and, due to supply disruptions, has to temporarily purchase ULSD

Location's total dispensed volume for diesel is 800,000 gallons over the initial compliance period (thru May 31, 2007)

	<u>Purchased as LSD</u>	<u>Purchased as ULSD</u>	<u>Downgraded ULSD</u>	<u>Dispensed as LSD</u>	<u>Dispensed as ULSD</u>
Oct-06	100,000			100,000	
Nov-06	100,000			100,000	
Dec-06	85,000	15,000	15,000	100,000	
Jan-07	100,000			100,000	
Feb-07	100,000			100,000	
Mar-07	77,000	23,000	23,000	100,000	
Apr-07	100,000			100,000	
May-07	<u>100,000</u>			<u>100,000</u>	
<b>TOTAL</b>	<b>762,000</b>	<b>38,000</b>	<b>38,000</b>	<b>800,000</b>	<b>0</b>

38,000 gal. ULSD was downgraded and dispensed as LSD or 4.75%

**Location is compliant with Anti-Downgrading Regulation**

### Example 3: Location dispenses LSD and spot buys ULSD to supplement inventory due to pricing disparity

Location's total dispensed volume for diesel is 800,000 gallons over the initial compliance period (thru May 31, 2007)

	<u>Purchased as LSD</u>	<u>Purchased as ULSD</u>	<u>Downgraded ULSD</u>	<u>Dispensed as LSD</u>	<u>Dispensed as ULSD</u>
Oct-06	77,000	23,000	23,000	100,000	
Nov-06	85,000	15,000	15,000	100,000	
Dec-06	77,000	23,000	23,000	100,000	
Jan-07	77,000	23,000	23,000	100,000	
Feb-07	85,000	15,000	15,000	100,000	
Mar-07	70,000	30,000	30,000	100,000	
Apr-07	77,000	23,000	23,000	100,000	
May-07	<u>70,000</u>	<u>30,000</u>	<u>30,000</u>	<u>100,000</u>	
<b>TOTAL</b>	<b>618,000</b>	<b>182,000</b>	<b>182,000</b>	<b>800,000</b>	<b>0</b>

182,000 gal. ULSD was downgraded and dispensed as LSD or 22.75% 11

Location is **non-compliant** with Anti-Downgrading Regulation (exceeds 20% max.)

# No. 1 Diesel (Kerosene) Blending

In winter months, kerosene is commonly blended with No. 2 diesel to improve cold temperature performance

- Kerosene blended with ULSD must be 15 ppm sulfur or lower for the fuel to be labeled and dispensed as ULSD
- 500 ppm sulfur kerosene may be blended with ULSD, but is subject to downgrading limitations
  - The volume of ULSD that is downgraded will count against an entity's 20% limitation.
- 15 ppm sulfur kerosene may be blended with LSD, and is exempted from downgrading restrictions
  - The volume of 15 ppm kerosene that is downgraded does not count against an entity's 20% limitation.


Terminals and pipelines are subject to additional volume balance requirements under the Designate and Track program

# EPA Penalties

- Potential penalties of up to \$32,500 per day per occurrence plus economic benefit
- Presumptive liability – all parties in the distribution chain are presumed liable
  - Parties that own, lease or operate facility
  - Refiner whose brand name that appears at facility
  - But, not common carriers, unless found at their facility
    - Common carrier protection does apply to tank truck carriers

# Defenses to EPA Penalties

- Affirmative Defenses (must show all 3 parts):
  - 1) Did not cause violation
  - 2) Product Transfer Documents indicate compliance, and
  - 3) Quality Assurance / Quality Control Program
    - Sampling & testing
      - Sampling at retail by industry consortium (participation in the consortium is an alternative compliance method with the periodic sampling and testing portion of the QA/QC requirements for participating refiners and distributors, if a number of conditions are met)
    - Alternative Program - Retailers and fleets don't have to have a testing program to meet their defense element (assuming the retailer isn't also its own distributor)
    - QA/QC practices and/or checklists, employee education programs, etc.



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This document is intended for informational purposes only and does not ensure compliance with EPA regulations. It is the responsibility of each company to understand and follow EPA's rules.

For more information contact:

U.S. Environmental Protection Agency

<http://www.epa.gov/otaq/highway-diesel/index.htm>

Clean Diesel Fuel Alliance [www.clean-diesel.org](http://www.clean-diesel.org) 15