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Diesel Fuel Standards and Rulemakings

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Overview of Diesel Standards

e-CFR Links

View related links to the electronic Code of Federal Regulations (e-CFR):

- [Diesel Fuel regulations](#)
(40 CFR 80 Subpart I)
- [Fuels & Fuel Additives](#)
[Registration](#)
(40 CFR Part 79)

Before EPA began regulating sulfur in diesel, diesel fuel contained as much as 5,000 parts per million (ppm) of sulfur. EPA began regulating diesel fuel sulfur levels in 1993.

Beginning in 2006, EPA began to phase-in more stringent regulations to lower the amount of sulfur in diesel fuel to 15 ppm. This fuel is known as ultra-low sulfur diesel (ULSD).

EPA's diesel standards target emissions from two different sources:

- Onroad (or highway) vehicles; and

- Nonroad engines and equipment.

Collectively, diesel standards reduce harmful emissions from both onroad and nonroad diesel sources by more than 90%.

Onroad (Highway) Diesel Fuel Standards

From 2006 to 2010, ULSD was phased in for onroad diesel.

After 2010, EPA's diesel standards required that:

- All highway diesel fuel supplied to the market be ULSD; and
- All highway diesel vehicles must use ULSD.

Learn more:

- [Regulations for emissions from commercial trucks and buses](#)

Nonroad Diesel Fuel Standards

From 2007 to 2014, low sulfur diesel fuel (specified at 500 ppm) and ULSD fuel was phased in for nonroad, locomotive, and marine (NRLM) diesel fuel.

After 2014, EPA's diesel standards require that:

- All nonroad, locomotive, and marine (NRLM) diesel fuel must be ULSD; and
- All NRLM engines and equipment must use this fuel (with some exceptions for older locomotive and marine engines).

Learn more:

- [Regulations for emissions from heavy equipment with compression-ignition \(diesel\) engines](#)
- [Regulations for emissions from locomotives](#)
- [Domestic regulations for emissions from marine compression-ignition \(diesel\) engines](#)

International Fuel Standards for Emission Control Areas (ECAs)

Ocean-going vessels and large ships traditionally used “bunker fuel” with sulfur levels as high as 5%, or 50,000 ppm, sulfur. Bunker fuel burned on these ships was a large source of harmful air pollution in the U.S.

An international treaty designated two Emission Control Areas (ECA) covering U.S. waters. The North America ECA extends 200 miles from the shores of North America, and the U.S. Caribbean Sea ECA covers waters around Puerto Rico and the U.S. Virgin Islands. The sulfur content of the fuel used in marine vessels operating in these ECAs may not exceed 0.10 weight percent (1000 ppm).

Note that a global sulfur cap of 3.50 weight percent applies outside of ECA boundaries. This limit decreases to 0.50 weight percent in 2020.

Learn more:

- [International standards to reduce emissions from marine diesel engines and their fuels](#)

Diesel Fuel Related Rulemakings

Help

For help on using the table:

- [View Table Instructions](#)

For additional information on vehicles and fuel requirements, please see the following rulemakings.

Click the regulation titles for additional information, including:

- Regulations;
- Regulatory impact analyses;
- Comment summaries;
- Rule histories (including proposed rules); and
- Fact sheets.

Show entries

Search:

Regulation Title	Regulation Publish Date (Year/Month)
Amendments Related to Tier 3 Motor Vehicle Emission and Fuel Standards, Nonroad Engine and Equipment Programs, and MARPOL Annex VI Implementation	2015/02
Final Rule for Regulation of Fuels and Fuel Additives: Modifications to the Transmix Provisions Under the Diesel Sulfur Program	2012/12
Final Rule for Control of Emissions From New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder	2010/04
Direct Final Rule for Amendments to Regulations for Heavy-Duty Diesel Engines	2006/08
Final Rule for Procedures for Testing Highway and Nonroad Engines and Omnibus Technical Amendments	2005/07

Regulation Title	Regulation Publish Date (Year/Month)
<u>Final Rule for Control of Emissions of Air Pollution From Nonroad Diesel Engines and Fuel</u>	2004/06
<u>Final Rule for Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements</u>	2001/01

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Diesel Fuel Related Supporting Documents

For more information, review:

- [Supporting documents for Diesel Fuel Standards.](#)

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