



Regulatory Announcement

Emission Standards for New Commercial Marine Diesel Engines

The U.S. Environmental Protection Agency (EPA) is issuing a final rule to reduce emissions from new large marine diesel engines. Control of emissions from this previously unregulated source will help reduce the harmful health effects of ozone and particulate matter from nonroad engines.

A National Emission Control Program

This national program will reduce emissions of oxides of nitrogen (NO_x) and particulate matter (PM) from marine diesel engines rated over 37 kilowatts (kW) (50 horsepower). These engines are used for propulsion and auxiliary power on commercial vessels in a variety of marine applications, including fishing boats, tug and towboats, dredgers, coastal and Great Lakes cargo vessels, and ocean-going vessels. We will address engines for recreational vessels in a separate rulemaking.

The results of a study we conducted in 1990 showed the need to reduce air pollution from nonroad engines. We published this finding with the first rulemaking setting emission standards for nonroad engines, which we completed in June 1994. In April 1998, we published final requirements for emission controls for locomotive engines. In September 1998, we published more stringent emission standards for diesel engines used in most nonroad applications, including small marine engines below 37 kW. This final rule establishes a comprehensive emission control program for the marine derivatives of those land-based engines.

Highlights of the Final Rule

This rulemaking sets challenging emission standards for marine diesel engines that are similar to land-based nonroad or locomotive engines (with displacement up to 30 liters per cylinder). These standards take effect starting between 2004 and 2007, depending on the size of the engine. These EPA standards supersede the requirements specified by the International Maritime Organization (IMO).

We are also adopting a new approach to address emissions during operation that is not included in the laboratory testing protocol. Engine manufacturers need to demonstrate compliance with the emission standards over a variety of operating conditions. These “off-cycle” requirements become effective with the new emission standards.

Health and Environmental Benefits

Emissions from marine diesel engines account for about 4.4 percent of total mobile source NO_x emissions nationwide and about 1 percent of PM emissions. We expect this final rule to lead to a 24 percent reduction in NO_x emissions and a 12 percent reduction in PM emissions in 2030 when the program is fully phased-in. These emission reductions will be especially important in the areas around commercial ports and heavily populated coasts. The program provides much-needed assistance to states facing ozone and particulate air quality problems that are causing a range of adverse health effects for their citizens, especially in terms of respiratory impairment and related illnesses.

For More Information

Additional documents on marine engines are available electronically on the Office of Mobile Sources’ web site at:

<http://www.epa.gov/oms/marine.htm>

For further information on this final rule, please contact the CI Marine Team at:

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