



Regulatory Announcement

Proposed Emission Standards for New CI Marine Engines

The U.S. Environmental Protection Agency (EPA) is issuing a Notice of Proposed Rulemaking (NPRM) for emissions from new compression-ignition (CI) marine engines rated over 37 kilowatts (50 horsepower). Control of emissions from this currently unregulated source will help reduce the harmful health effects of ozone and particulate matter from nonroad engine sources.

A National Emission Control Program

EPA is proposing a national program to control emissions of oxides of nitrogen (NO_x) and particulate matter (PM) from large marine diesel engines. 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. Engines for recreational vessels will be covered by a subsequent rulemaking action.

The results of a 1990 EPA study demonstrated the need for control of air pollution in the nonroad engine and vehicle arena. EPA published this finding in conjunction with the first rulemaking to set emission standards for nonroad engines, which was completed in June 1994. In April 1998, the Agency issued final requirements for emission controls for locomotive engines. In September 1998, the Agency issued final requirements for more stringent emission standards for diesel engines used in most nonroad applications, including marine engines below 37 kilowatts.

Emissions from marine diesel engines account for about 4.5 percent of total mobile source NOx emissions nationwide and about 1 percent of PM emissions. However, because of the nature of their operation, the contribution of these engines to total NOx emissions in port cities and coastal areas is higher. This NPRM supplements these actions by proposing a comprehensive emission control program for the marine derivatives of these land-based engines. It also follows an Advance Notice of Proposed Rulemaking (ANPRM) published in the *Federal Register* on May 22, 1998, that described the background and general provisions the Agency was considering for marine diesel engine emission controls.

Highlights of Proposed Rule

This NPRM proposes three important sets of provisions. First, it sets out a two-phase emission control strategy for marine diesel engines that are derived from, or use the same technologies as, land-based nonroad or locomotive engines. The first phase would go into effect in 2004 or 2006, depending on engine size. The second phase would go into effect in 2008 or 2010, but will be subject to a feasibility review in 2003. Larger engines would be required to meet the emission limits finalized by the International Maritime Organization (IMO). The IMO limits would also apply to the smaller engines prior to 2004.



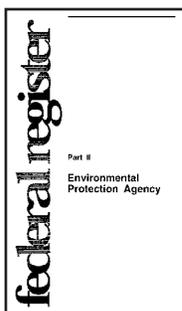
Second, the NPRM proposes a new approach for controlling off-cycle emissions, and calls for engine manufacturers to demonstrate compliance with the emission limits over a variety of operating conditions. These off-cycle requirements would become effective with the 2004/2006 emission limits. Finally, the certification and compliance provisions being considered are derived from the programs for land-based nonroad or locomotive engines, but will reflect unique characteristics of the marine derivatives of these engines.

Health and Environmental Benefits

If the emission standards and other requirements are implemented as discussed in the proposed rule, EPA would expect to see a 34 percent reduction in NO_x emissions and a 14 percent reduction in PM emissions in 2030 when the program is fully phased-in. Overall, the program would provide 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.

Public Participation Opportunities

EPA desires full public participation in arriving at rulemaking decisions. The Agency solicits comments from all interested parties. Wherever applicable, full supporting data and detailed analysis should also be submitted to allow EPA to make maximum use of the comments. Commenters are especially encouraged to provide specific suggestions for changes to any aspects of the proposal that they believe need to be modified or improved.



EPA will hold a public hearing in January 1999 and will accept written comments on the NPRM for 60 days after publication in the *Federal Register*, expected in December 1998. For instructions on submitting written comments, please see the *Federal Register* notice. It is available from the EPA Air and Radiation Docket by calling 202-260-7548; please refer to Docket No. A-97-50. In addition, the ANPRM and related documents are available electronically via the EPA Internet server at:

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

For More Information

Additional documents on marine engines are available electronically at the Internet site given above, or by contacting:

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