United States Environmental Protection Agency EPA420-F-98-006 May 1998

Office of Mobile Sources



Regulatory Announcement

Advance Proposal for Emission Standards for New Diesel Marine Engines

The U.S. Environmental Protection Agency (EPA) is issuing an Advance Notice of Proposed Rulemaking (ANPRM) for emissions from new diesel marine engines at or above 37 kilowatts (50 horsepower). Control of emissions from this currently unregulated source moves the Agency one step further in the initiative to reduce the harmful health effects of ozone and particulate matter from nonroad engine sources.

A National Emission Control Program

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 September 1997, the Agency issued a proposal for more stringent emission standards for diesel engines used in most nonroad applications, including marine engines below 37 kilowatts. EPA is now considering proposing a national program to control emissions of oxides of nitrogen (NOx) and particulate matter (PM) from larger diesel marine engines. The Agency is publishing an Advance Notice of Proposed Rulemaking to encourage a broader dialogue with the public regarding the emission standards under consideration. These engines are used for propulsion and auxiliary power on both commercial and recreational vessels in a variety of marine applications.



This ANPRM supplements an earlier proposal for these engines initiated as part of an overall control strategy for new gasoline spark-ignition (SI) and diesel compression-ignition (CI) marine engines. This new program contains three sets of standards. First, for those marine diesel engines that are derived from or use land-based nonroad or highway engine technologies, EPA is contemplating an emission control program for diesel marine engines similar to the Tier 2 program proposed for nonroad land-based engines. Second, for engines that are derived from or use locomotive technologies, EPA is contemplating numerical emission limits similar to those applicable to land-based locomotives (finalized December 17, 1997) or those contained in Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL 73/ 78). Third, for low-speed, high-horsepower engines used to propel oceangoing vessels, EPA is contemplating numerical emission limits adopted

by the International Maritime Organization (IMO). The certification and compliance provisions being considered are also derived from the program for land-based nonroad diesel engines, but will reflect relevant differences in locomotive-size and larger marine engines that are used domestically.



Emission Reductions Expected

If the standards and other requirements are implemented as proposed, the resulting emission reductions would translate into significant, long-term improvements in air quality in many areas of the U.S., particularly in port cities and coastal areas. Application of emission controls similar to the proposed nonroad Tier 2 standards are expected to result in NOx and PM reductions comparable to those expected from land-based engines, on a per-engine basis. The MARPOL Annex VI emission limits were intended to result in a 30 percent reduction of NOx emissions; actual emission reductions will depend on the age and other characteristics of the national fleet. 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 accept comments on the ANPRM for 30 days after publication in the *Federal Register*, expected in March 1998. There will also be an opportunity for oral and written comment when EPA publishes the Notice of Proposed Rulemaking later in the year. 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/OMSWWW/marine.htm

For More Information

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

U.S. Environmental Protection Agency Office of Mobile Sources 2000 Traverwood Ann Arbor, Michigan 48105