

cylinder installed on vessels flagged or registered in the United States.

The emission-control program we are adopting in this rule is a continuation of the process of establishing emission standards for nonroad engines and vehicles under Clean Air Act section 213(a).⁴

This is our third action for emission standards for marine diesel engines above 37 kW. In our first action, in 1999, we adopted emission standards for commercial marine engines above 37 kilowatts (kW) (64 FR 73300, December 29, 1999; 40 CFR part 94). The standards adopted in that rule consist of mandatory standards, referred to as our Tier 2 standards, that apply to engines above 37 kW with per-cylinder displacement up to 30 liters (also known as Category 1 and Category 2 marine diesel engines).⁵ These Tier 2 standards apply to oxides of nitrogen (NO_x), hydrocarbon (HC), PM and CO emissions and go into effect in 2004–2007, depending on engine size. Our Tier 2 marine diesel engine standards are expected to achieve a 32-percent reduction in NO_x emissions for Category 1 and Category 2 marine diesel engines by 2030 relative to uncontrolled levels. The Tier 2 standards for Category 1 and Category 2 marine diesel engines also contain PM standards that are expected to achieve a 26-percent reduction in PM emissions by 2030. We did not adopt mandatory emission standards for Category 3 marine diesel engines in 1999. Manufacturers of those engines were expected to comply voluntarily with internationally negotiated NO_x standards.

In our second action for marine diesel engines above 37 kW, we adopted standards for recreational marine diesel engines (67 FR 68242, November 8, 2002). These numerical standards are identical to those we finalized for

commercial marine diesel engines in 1999. However, the engines are tested using a different duty cycle and the effective date for recreational marine diesel engines is 2006–2009, depending on engine size.

This third action for marine diesel engines above 37 kW was proposed on May 29, 2002 (67 FR 37548). At a public hearing on June 13 and during the public comment period, which ended on July 16, 2002, we heard from over 50 commenters. The emission-control program we are adopting in this action follows from the approach described in our proposal, though we have made numerous adjustments in response to the comments and other information received since the proposal.

B. How Is This Document Organized?

After this introductory section, Section II describes the set of engines that will be required to comply with the standards. Section III contains the standards we are finalizing. Section IV describes the future rulemaking we are committing to pursue. Section V describes various compliance provisions. Section VI summarizes the projected impacts of the standards. Section VII gives an update on the Blue Cruise program we described in our proposal. Finally, Sections VIII and IX contain information about how we satisfied our administrative requirements and about the statutory provisions for this final rule.

Additional information on many of these topics can be found in the Final Regulatory Support Document and the Summary and Analysis of Comments. These documents and all the comments we received are in Docket A–2001–11.

The remainder of this section summarizes the new requirements and the air quality need for the rulemaking. We also provide an update on the status of U.S. ratification of MARPOL Annex VI.

C. What Requirements Are We Finalizing?

We are adopting emission standards for new marine diesel engines installed on vessels flagged or registered in the United States. We are adopting standards for the first time for new Category 3 marine diesel engines, beginning in 2004. We are also adopting additional standards for some Category 1 and all Category 2 marine diesel engines, also beginning in 2004. This section presents a brief description of this emission-control program. More details can be found in Sections III and IV of this preamble and in the Final Regulatory Support Document.

1. Category 3 Marine Diesel Engines

Clean Air Act section 213(a)(3) requires EPA to adopt regulations that contain standards concerning certain pollutants reflecting the greatest degree of emission reductions achievable through the application of technology that will be available, taking into consideration the availability and costs of the technology, and noise, energy, safety factors and existing motor vehicle standards. EPA is also to revise these standards from time to time. The emission-control program we are adopting in this rule meets these criteria through a two-part approach. First, we are adopting near-term Tier 1 standards that will go into effect immediately based on readily available emission-control technology. Second, we are adopting regulations that set a schedule for a future rulemaking to assess and adopt an appropriate second tier of standards. We recognize that manufacturers can achieve additional reductions with more lead time than is provided by the Tier 1 standards. They can do this by expanding the use and optimization of in-cylinder controls, combined with the significant emission reductions that may be achievable with advanced technologies such as selective catalytic reduction or water injection. We believe, however, that it is appropriate to defer a final decision on the longer-term Tier 2 standards to a future rulemaking. While there is a certain amount of information available about the advanced technologies at this time, there are several outstanding technical issues concerning the widespread commercial use of these technologies. Deferring the Tier 2 standards to a second rulemaking will allow us to obtain important additional information on the use of these advanced technologies that we expect to become available over the next few years. This new information may include (1) new developments as manufacturers continue to make various improvements to the technology and address any remaining concerns, (2) data or experience from recently initiated in-use installations using the advanced technologies, and (3) information from longer-term in-use experience with the advanced technologies that will be especially helpful for evaluating the long-term durability of emission controls. We believe the projected time frame for the future rulemaking is appropriate to allow us to make the best use of information that will be available to have a sound technical basis for assessing the technological capabilities of emission-control systems that include

³ This final rule applies to “new” marine diesel engines and to “new” marine vessels that include marine diesel engines. In general, a “new” marine diesel engine or a “new” marine vessel is one that is produced for sale in the United States or that is imported into the United States (See section II, below). The emission standards established in this final rule, therefore, will typically apply to marine diesel engines that are installed on vessels flagged or registered in the United States.

⁴ Section I of the preamble for our proposal contains an extensive description of the regulatory background for this rulemaking, which we are not repeating here (67 FR 37548, May 29, 2002).

⁵ EPA treats voluntary standards equivalent to the internationally negotiated oxides of nitrogen standards as Tier 1 standards. The internationally negotiated standards are contained in MARPOL Annex VI (see footnote 5 and associated text). When they go into force, the internationally negotiated standards will apply to new engines above 130 kW installed on vessels constructed on or after January 1, 2000 and engines that undergo a major conversion on or after January 1, 2000.