



# Environmental Fact Sheet

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## Proposed New Emission Standards for Nonroad Diesel Engines

*The U.S. Environmental Protection Agency (EPA) is proposing stringent new standards for diesel engines used in a wide range of nonroad construction, agricultural, and industrial equipment and some marine applications. The proposed program would represent a major step toward reducing the harmful health effects of ozone and particulate matter (PM) nationwide.*

### What Are the Health and Environmental Benefits?

The proposed standards would reduce emissions from a typical nonroad diesel engine by up to two thirds. By meeting these new proposed standards, manufacturers of new nonroad engines and equipment would achieve large reductions in the emissions that cause ground-level ozone (especially oxides of nitrogen, or NO<sub>x</sub>) and particulate matter air pollution problems in many parts of the country. For perspective, a NO<sub>x</sub> reduction of the scale that this rule would achieve is equivalent to taking more than 2 million of heavy-duty trucks off the road.

Ozone causes a range of health problems related to breathing, including chest pain, coughing, and shortness of breath. Particulate matter becomes deposited deep in the lungs and results in premature death, increased emergency room visits, and increased respiratory symptoms and disease. In addition, ozone, NO<sub>x</sub>, and particulate matter adversely affect the environment in various ways, including crop damage, acid rain, and reduction in visibility.

## **How Much Would the Proposed Rule Cost?**

The costs of meeting the proposed low emission standards would add 2 percent or less to the purchase price of new nonroad diesel equipment. The program would cost about \$300 per ton of NO<sub>x</sub> reduced, which compares very favorably with other emission control strategies.

## **How Would the Proposed Rule Provide Flexibility to Industry?**

The proposed program has several elements that would add flexibility to how manufacturers comply with the standards, reducing the costs of compliance without harming the overall environmental goals of the rule. For example, the standards are designed to phase in over several years with schedules that recognize that some engines are technologically closer to compliance (e.g., engines similar to highway truck engines) than others. Engine manufacturers may also use averaging provisions in choosing their most efficient path to compliance. The proposal also has provisions designed to smooth the transition by equipment manufacturers as they begin to install the new engine designs into their equipment. Small businesses subject to the proposed regulations would have additional options for compliance.

In addition, since the proposed standards are expected to be adopted by the State of California and are consistent with standards being proposed in Europe, manufacturers would be able to use a single engine or machine design for all of these markets, thus avoiding the added cost of multiple versions.

## **How Will the Rule Assist States?**

Because the proposed standards cover a large and diverse population of nonroad machines and would achieve very significant, regional-scale emission reductions across the country, implementation of this program would become an important part of the overall control strategies of numerous states and localities grappling with difficult air quality problems.

## **How Did this Initiative Evolve?**

In recent years, EPA has been strongly encouraged by states and others to pursue national regulations that would help them address the air quality problems in many parts of the country. Prior to issuing this proposal, EPA engaged in many months of discussion with state environmental regulators, environmental organizations, engine manufacturers, equipment manufacturers, small businesses, and others. One result of this activity was a Statement of Principles signed by EPA, engine manufacturers, and the State of California outlining a framework for potential nonroad diesel emission standards. Another result has been that the Agency has been able to get an early start in addressing a wide range of issues that stakeholders have raised during numerous meetings and conversations, during a special small businesses outreach effort, and during a public comment period on an advance notice which EPA issued in anticipation of this proposal.

## **What Are the Main Components of the Proposed Rule?**

The primary feature of this proposed rule is a set of new emission standards for mobile nonroad diesel engines of almost all types. The proposal phases in the standards in two tiers and has different standards and start years for different engine power ratings. EPA will reassess the feasibility of the program in 2001.

Also a part of this proposal is a set of voluntary standards for engines with superior emission performance that EPA is hopeful will accelerate the air quality benefits of this program.

## **Would the Proposed Standards Apply to Existing Nonroad Equipment?**

No. Only equipment built after the start date for an engine category (1999-2006, depending on the category) would be covered by the rule.

## **What Opportunities Exist for Public Participation?**

EPA desires full public participation in arriving at final rulemaking decisions. The Agency solicits comments on all aspects of the proposal

from all interested parties. Wherever applicable, full supporting data and detailed analyses should 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. A public hearing will be held on October 8, 1997 in Chicago. Written comment will be accepted until November 24, 1997.

## **For More Information**

A copy of the Proposed New Emission Standards for Nonroad Diesel Engines is available electronically from the EPA Internet server and via dial-up modem on the Technology Transfer Network (TTN), an electronic bulletin board system (BBS).

### Internet (Web)

<http://www.epa.gov/OMSWWW/>  
(look in What's New or under the specific topic)

### TTN BBS:

919-541-5742 (1200-14400 bps, no parity, 8 data bits,  
1 stop bit)

Voice Helpline: 919-541-5384

Information is also available by calling the NOx/PM Heavy-Duty Engine voice mailbox at: 313-741-7887.

or by writing to:

U.S. Environmental Protection Agency  
Office of Mobile Sources  
2565 Plymouth Road  
Ann Arbor, Michigan 48105