



At a Glance

Catalyst for Improving the Environment

Why We Did This Review

Emissions from nonroad mobile sources can present significant health and environmental hazards. The U.S. Environmental Protection Agency (EPA) projects that emissions from these sources will decrease in some categories but increase in others. As such, we examined EPA's efforts to reduce nonroad mobile source emissions, opportunities for additional reductions, and challenges to addressing nonroad emissions problems.

Background

Nonroad mobile sources include marine vessels, locomotives, aircraft, farm and construction machinery, lawn and garden equipment, recreational vehicles, and outdoor power equipment. Nonroad mobile sources produce particulate matter and ozone-forming nitrogen oxides and volatile organic compound emissions, as well as toxic air pollutants, which contribute to a host of health and environmental hazards.

For further information, contact our Office of Congressional and Public Liaison at (202) 566-2391.

To view the full report, click on the following link:
www.epa.gov/oig/reports/2006/20060927-2006-P-00039.pdf

Progress Report on EPA's Nonroad Mobile Source Emissions Reduction Strategies

What We Found

EPA has issued nonroad mobile source emissions control regulations that, when fully implemented, should result in significant reductions in such emissions. However, more emission reduction efforts are needed and some challenges remain.

Until the mid-1990s, emissions from nonroad mobile sources were largely uncontrolled. In the 1990 Clean Air Act Amendments, Congress directed EPA to study the contribution of nonroad sources to ozone and other air pollutants, and to issue regulations if problems were found. EPA has since issued 14 regulations to control pollutants from nonroad mobile sources, with a total of 20 standards for various nonroad categories. The most recent regulation, the 2004 Nonroad Diesel Engines rule, is based on a systems approach involving a combination of engine modifications, reduced sulfur content in diesel fuel, and exhaust controls.

There are approximately 5 million nonroad diesel engines in the United States today, many of which are not subject to EPA emissions standards. These engines have the potential to continue to produce high levels of pollution over the next 20 years or more. Agency projections show that substantial emissions reductions have already been made for some source categories. However, the full benefits of EPA's regulations may not be realized until 2020-2030, when the standards are expected to be fully implemented. Projected benefits assume engine turnover and replacement – activities that may be influenced by cost, lead time, and overall feasibility. EPA has encouraged emission reductions for existing engines through voluntary efforts and incentive programs. Although a mandatory retrofit program may achieve increased health protection sooner, such a requirement from the Federal level can only come through a change in the Clean Air Act.

EPA faces significant challenges in addressing nonroad emissions, particularly among the marine, aircraft, and small gasoline engine categories. The role that other government entities and international communities play in regulating emissions from these source categories hinders EPA's progress in achieving reductions. Technical challenges, including the availability of low sulfur fuel, the diversity of nonroad engines, and the wide range of applications, also must be addressed to meet air quality standards and emission reduction goals.

This report provides information on the progress of EPA's efforts to address nonroad emissions and makes no recommendations.