

Clean Air Nonroad Diesel Rule Summary

General Background

ON May 10, 2004, the U.S. Environmental Protection Agency (EPA) announced one of the most dramatic advancements in clean air protection since passage of the Clean Air Act Amendments of 1990. EPA's Clean Air Nonroad Diesel Rule requires stringent pollution controls on diesel engines used in industries such as construction, agriculture, and mining, and it will slash the sulfur content of diesel fuel. The rule will be a major step towards reaching our nation's clean air and public health goals.

The Clean Air Nonroad Diesel Rule is the latest in a series of Clean Diesel actions that are designed to reduce emissions from nearly every type of diesel vehicle and equipment. This nonroad diesel program combines cleaner engine technologies with cleaner fuel—similar to the on-highway diesel program—with an end result of dramatic environmental and public health benefits.

The new standards will cut emissions from nonroad diesel engines by more than 90 percent. Nonroad diesel equipment, as described in this rule, currently accounts for 47 percent of diesel particulate matter (PM) and 25 percent of nitrogen oxides (NO_x) from mobile sources nationwide.

Sulfur levels will be reduced in nonroad diesel fuel by 99 percent from current levels (from approximately 3,000 parts per million [ppm] now, to 15 ppm in 2010). The lower sulfur fuel will provide immediate public health benefits by reducing PM from engines in existing nonroad equipment. It also makes it possible for engine manufacturers to use advanced clean technologies, similar to catalytic technologies used in passenger cars. New engine standards take effect, based on engine horsepower, starting in 2008.

More than 650,000 pieces of nonroad diesel equipment sold in the United States each year will be covered by this rulemaking. Currently, about six million pieces of nonroad diesel equipment are in use in the United States. Based on average expected equipment lifetime, this entire inventory should be upgraded by 2030.

The overall benefits of the nonroad diesel program significantly outweigh the costs by a ratio of 40 to 1.

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Environmental and Health Benefits

When the full inventory of older nonroad engines has been replaced, EPA expects to annually reduce:

- NO_x by 738,000 tons.
- PM by 129,000 tons.

When all older nonroad engines have been replaced, EPA expects to annually prevent:

- 6,000 children's asthma-related emergency room visits.
- 8,900 hospitalizations.
- 12,000 premature deaths.
- 15,000 non-fatal heart attacks.
- 280,000 cases of respiratory symptoms in children.
- 1,000,000 lost work days.

Estimated Costs

- The anticipated costs vary with the size and complexity of the equipment, but are in the range of 1 to 3 percent of the total purchase price for most nonroad diesel equipment categories.
- The estimated added cost for low-sulfur fuel will average about 4 cents per gallon.
- The use of ultra-low sulfur fuel will significantly reduce engine maintenance expenses.

For More Information

For more information on the Clean Air Nonroad Diesel Rule, please visit www.epa.gov/nonroad-diesel.



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