

# Clean Air Nonroad Diesel Rule Summary

- On May 10, 2004 the Bush Administration 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 sulfur content of diesel fuel. The rule will be a major help to areas nationwide in their effort to reach clean air goals and improve public health.
- 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 over 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 (NOx) 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.
- Over 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.

## Benefits:

- Environmental benefits when the full inventory of older nonroad engines has been replaced include:
  - NOx will be reduced by 738,000 tons annually
  - PM will be reduced by 129,000 tons annually
- Health benefits when all older nonroad engines have been replaced will include prevention of:
  - 6,000 children's asthma-related emergency room visits every year
  - 8,900 hospitalizations every year
  - 12,000 premature deaths every year
  - 15,000 heart attacks every year
  - 280,000 cases of respiratory symptoms in children every year
  - 1,000,000 lost work days every year

## Costs:

- The anticipated costs vary with the size and complexity of the equipment, but are in the range of 1-3 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 on the Clean Air Nonroad Diesel Rule, please visit [www.epa.gov/nonroad-diesel](http://www.epa.gov/nonroad-diesel)