

# EPA's Heavy-Duty Diesel Rule

In 2004, the Environmental Protection Agency (EPA) finalized a rule for so called "land-based" nonroad engines, like bulldozers and tractors. These engines are major sources of air pollution, releasing toxic particulates and smog-forming nitrogen oxides into the air we breathe. Holding these engines accountable to the same fuel and tailpipe standards as highway trucks and buses will cut their emissions of soot by 90 percent, while smog-forming nitrogen oxide emissions will be reduced by at least 95 percent.

**Air pollution burden:** These engines contribute as much particulate soot as highway trucks and buses powered by diesel, releasing more than 180,000 tons of particulate matter into the air. In addition, heavy diesel equipment is responsible for about 1.6 million tons of smog-forming nitrogen oxide pollution. Just two sectors—construction and agriculture—account for more than 80 percent of the total emissions from heavy diesel equipment.

**Benefits of strong regulations:** The EPA estimates that nearly 10,000 premature deaths could be avoided every year by harmonizing the emission and fuel standards for heavy diesel equipment with the standards for highway diesel trucks and buses. Another study by air pollution officials and regulators estimates that stronger regulations would save the nation \$67 billion annually through avoided incidences of hospitalization, lost work days, premature death, and other health effects.

**What engines are covered?** The nearly six million heavy diesel engines currently in use in the United States can be found in every nook and cranny of the country, from our nation's farmlands to our cities to remote wilderness areas. These engines are used for construction (such as bulldozers and excavators), farming (tractors and combines), industrial and commercial usage (portable generators), recreation (snowmobiles), logging, and airport support. Two significant categories of nonroad engines are not included: locomotives and commercial marine vessels. The EPA needs to follow-up its strong rulemaking for nonroad heavy diesel engines and hold locomotives and commercial marine vessels accountable to similar standards.

**How is the EPA proposing to clean up these engines?** The EPA's standards would reduce soot and nitrogen oxide emissions by more than 90 percent. These standards would be phased in between 2008 and 2014. To meet the standards, advanced emission controls currently being developed for highway trucks and buses would need to be incorporated into heavy diesel engines. Advanced emission controls rely upon "ultra-low" sulfur diesel in order to function, and the sulfur content in diesel fuel would need to be reduced 99 percent from today's level. This is a two-step program to reduce sulfur content: Beginning in 2007, today's uncontrolled level of 3,400 parts per million (ppm) would drop to 500 ppm, and then down to 15 ppm in 2010.

**History of under-regulation:** Heavy diesel equipment has not faced the regulatory scrutiny that highway diesel vehicles have faced. While emissions standards for highway vehicles, such as large trucks and buses, have grown increasingly tighter, heavy-duty

diesel equipment has been allowed to release much higher levels of toxic soot and smog-forming pollution. Heavy diesel equipment did not have to meet any emission standards until 1996, a full three decades after the first regulations for highway diesel trucks and buses. Compared to a new highway truck or bus, heavy diesel equipment manufactured in 2007 can release 25 to 60 times more particulate soot and up to 25 times more nitrogen oxides.

**Cost-effective solutions:** Pollution controls for heavy diesel equipment can be installed at a relatively low cost. Emission control technologies developed for highway trucks and buses can be modified for application on heavy diesel equipment. For most types of equipment, the cost of installing emission controls for nitrogen oxides and particulates is a fraction of the total equipment cost, and the emissions reductions achieved are classified as very cost-effective based upon EPA criteria.

Source: [http://www.ucsusa.org/clean\\_vehicles/solutions/cleaner\\_diesel/epas-heavy-duty-diesel-rule.html](http://www.ucsusa.org/clean_vehicles/solutions/cleaner_diesel/epas-heavy-duty-diesel-rule.html)