

FACT SHEET

PROPOSED AIR TOXICS STANDARDS FOR RECIPROCATING INTERNAL COMBUSTION ENGINES

ACTION

- On February 25, 2009, the Environmental Protection Agency (EPA) proposed national emission standards for hazardous air pollutants (NESHAP) for stationary reciprocating internal combustion engines (RICE) that are not already covered by earlier EPA regulations. This rule would set emissions limits for engines that:
 - are located at area sources of air toxics emissions;
 - have a site rating of less than or equal to 500 horsepower, are located at major sources of air toxics emissions, and were constructed or reconstructed before June 12, 2006;
 - have a site rating of greater than 500 horsepower, are located at major sources of air toxics emissions, and were constructed or reconstructed before December 19, 2002.
- These engines are used at facilities such as power plants and chemical and manufacturing plants to generate electricity and power pumps and compressors. They are also used in emergencies to produce electricity and pump water for flood and fire control,
- The proposed rule would reduce emissions of a number of toxic air pollutants including: formaldehyde, benzene, acrolein and others. Toxic air pollutants, also called air toxics, are those compounds known or suspected to cause cancer, other serious health problems and environmental damage.

Aftertreatment Control Options

- This action proposes emission limits on existing engines that owners and operators can meet by installing “aftertreatment” controls to engine exhaust streams.
- EPA expects that owners or operators of existing “rich-burn” engines, which burn natural gas, gasoline or other fuels, would install a non-selective catalytic reduction (NSCR) device to meet the proposed limits on air toxics emissions. .
- This proposed rule focuses on two options for aftertreatment control of emissions from existing diesel engines:
 1. Oxidation catalysts (OC) can achieve significant (up to 90%) air toxics reductions from diesel engines, but can only reduce fine particle pollution by about 25-30%. OCs provide negligible reductions of soot (black carbon).
 2. Catalyzed diesel particulate filters (CDPF) can reduce air toxics and fine particle emissions from diesel engines. This technology is very effective in reducing diesel soot (black carbon) at > 90%.

- Owners or operators of existing engines would be required to:
 - install emissions control equipment that would limit air toxics emissions by up to 90 percent,
 - perform emissions tests to demonstrate engine performance and compliance with rule requirements, and
 - burn ultra-low sulfur diesel fuel in non-emergency engines with a site rating greater than 300 horsepower.

BENEFITS

- EPA estimates that when this rule is fully implemented in 2013 it would reduce approximately:
 - 13,000 tons per year (tpy) of air toxics emissions
 - 2,600 tpy of particulate matter emissions,
 - 79,000 tpy of nitrogen oxides emissions,
 - 510,000 tpy of carbon monoxide emissions,
 - 90,000 tpy of volatile organic compound emissions, and
 - 4,000 tpy of sulfur oxides emissions
- The Agency estimates the monetized benefits of the proposed rule to be \$930 million to \$2.0 billion in 2013 - the year of full implementation. EPA was unable to monetize the benefits from reducing toxic air pollutants.
- The total national capital cost for the proposed rule would be approximately \$528 million in the year 2013, with a total national annual cost of \$345 million in the year 2013.
- EPA does not expect this proposed rule to have a significant impact on a substantial number of small entities. The Agency estimates that all small entities affected by this action would have annualized costs of less than 1 percent of their sales or revenues in 2013.

COMMENTING ON THIS RULE

- This proposal requests comments on:
 - the possibility of requiring the use of CDPF's for existing stationary diesel engines,
 - technical information on the feasibility of using CDPF's on older engines,
 - the economic impact on small business,
 - regulatory and non-regulatory approaches for reducing remaining engine emissions,
 - controlling fine particles as a surrogate for air toxic metals, and
 - the feasibility of creating a subset of engines that would have the tighter limits.

X Comments should be identified by Docket ID No. EPA-HQ-OAR-2008-0708 and submitted by one of the following methods:

- Federal eRulemaking Portal (<http://www.regulations.gov>)

- E-mail (a-and-r-docket@epa.gov)
- Mail (EPA Docket Center, Environmental Protection Agency, Mailcode 6102T, 1200 Pennsylvania Avenue, NW, Washington, DC 20460), or Hand delivery (EPA Docket Center, Environmental Protection Agency, Room 3334, 1301 Constitution Avenue, NW, Washington, DC).
- EPA will accept comments on this proposed rule for 60 days following publication of the proposed rule in the Federal Register.

BACKGROUND

- On June 15, 2004, EPA promulgated NESHAP for stationary RICE that have a site rating of greater than 500 horsepower and are located at major sources of air toxics emissions.
- On January 18, 2008, EPA promulgated NESHAP for stationary RICE that either are located at area sources of air toxics emissions or that have a site rating of less than or equal to 500 horsepower and are located at major sources of air toxics emissions, and were constructed or reconstructed after June 12, 2006.
- Major sources of air toxics emit 10 tons per year of a single air toxic or 25 tons per year of a mixture of air toxics. Examples include chemical plants and steel mills. Area release smaller amounts of toxic pollutants into the air—less than 10 tons per year of a single air toxic, or less than 25 tons per year of a mixture of air toxics. Examples include neighborhood dry cleaners and gas stations. Though emissions from individual area sources are often relatively small, collectively their emissions can be of concern—particularly where large numbers of sources are located in heavily populated areas.
- The schedule for completing this rule is part of a consent decree with Environmental Defense, which requires the EPA Administrator to complete a proposed rule by February 25, 2009 and a final rule by February 10, 2010.

FOR MORE INFORMATION

- The proposed rule is posted at: <http://www.epa.gov/ttn/oarpg/new.html>.
- Today's proposed rule and other background information are also available either electronically at <http://www.regulations.gov>, EPA's electronic public docket and comment system, or in hardcopy at the EPA Docket Center's Public Reading Room.
 - The Public Reading Room is located in the EPA Headquarters Library, Room Number 3334 in the EPA West Building, located at 1301 Constitution Ave., NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding Federal holidays.
 - Visitors are required to show photographic identification, pass through a metal detector, and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times.

- Materials for this proposed action can be accessed using Docket ID No. EPA-HQ-OAR-2008-0708.
- For further information about the proposed action, contact Ms. Melanie King of EPA's Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Energy Strategies Group at (919) 541-2469 or by e-mail at king.melanie@epa.gov.