

FACT SHEET

FINAL AIR TOXICS STANDARDS FOR RECIPROCATING INTERNAL COMBUSTION ENGINES

ACTION

- On February 17, 2010, the Environmental Protection Agency (EPA) issued a final rule that will reduce emissions of toxic air pollutants from existing diesel powered stationary reciprocating internal combustion engines (RICE). These engines also are known as compression ignition (CI) engines.
- Industrial facilities such as power plants and chemical and manufacturing plants use these engines to generate electricity for compressors and pumps. They also are used in emergencies to produce electricity to pump water for flood and fire control.
- Toxic air pollutants, also known as hazardous air pollutants or air toxics, are those pollutants known or suspected of causing cancer and other serious health effects.
- This final rule applies to stationary diesel engines that meet specific siting, age and size criteria. It will control emissions of formaldehyde, acetaldehyde, acrolein, methanol and other air toxics from diesel engines:
 - ◆ used at area sources of air toxics emissions and constructed or reconstructed before June 12, 2006,
 - ◆ used at major sources of air toxics emissions, have a site rating of less than or equal to 500 horsepower (HP), and constructed or reconstructed before June 12, 2006,
 - ◆ used at major sources of air toxics for non-emergency purposes, have a site rating of greater than 500 HP, and constructed or reconstructed before December 19, 2002.
- On December 18, 2008, the DC. Circuit Court of Appeals determined that EPA's air toxics standards must address emissions during all phases of operation including periods of startup, shutdown, and malfunction. Therefore, the final rule requires diesel RICE to comply with these emissions standards during malfunction and shutdown, and specifies work practice standards that apply during startup. This action also revises the startup, shutdown, and malfunction provisions for the stationary engines regulated by similar emissions standards in 2004 and 2008.
- Operators of existing stationary diesel engines will be required to:
 - ◆ Install emissions control equipment that would limit air toxics emissions by up to 70 percent for stationary non-emergency engines with a site rating greater than 300 HP,
 - ◆ Perform emissions tests to demonstrate engine performance and compliance with rule requirements, and
 - ◆ Burn ultra-low sulfur fuel in stationary non-emergency engines with a site rating greater than 300 horsepower.

BENEFITS AND COSTS

- EPA estimates that more than 900,000 of these engines generate electricity and power equipment at industrial, agricultural and other facilities.
- When this rule is fully implemented in 2013, EPA estimates that emissions from these diesel engines will drop by approximately:
 - ◆ 1,000 tons per year (tpy) of air toxics,
 - ◆ 2,800 tpy of fine particulate matter,
 - ◆ 14,000 tpy of carbon monoxide, and
 - ◆ 27,000 tpy of volatile organic compounds
- These emissions reductions will lead to significant annual health benefits. In 2013, this rule will protect public health by avoiding:
 - ◆ 110 to 270 premature deaths,
 - ◆ 75 cases of chronic bronchitis,
 - ◆ 170 nonfatal heart attacks,
 - ◆ 160 hospital and emergency room visits,
 - ◆ 180 cases of acute bronchitis,
 - ◆ 15,000 days when people miss work,
 - ◆ 1,900 cases of aggravated asthma, and
 - ◆ 87,000 acute respiratory symptoms.
- The value of these benefits is significant ranging from \$940 million to \$2.3 billion in 2013 – outweighing the costs by at least \$570 million.
- EPA estimates the total national capital cost for the final rule to be approximately \$744 million in 2013, with a total national annual cost of \$373 million in 2013. The annual cost includes control device operation and maintenance as well as monitoring, recordkeeping, reporting, and performance testing.
- EPA calculated the costs and benefits of this rule based on the value of a dollar in 2008.

BACKGROUND

- On June 15, 2004, EPA promulgated national emission standards for hazardous air pollutants (NESHAP) for stationary RICE that have site ratings of greater than 500 horsepower and are located at major sources of air toxics emissions.
- On January 18, 2008, EPA promulgated NESHAP for new 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, are located at major sources of air toxics emissions, and were constructed or reconstructed after June 12, 2006.
- The schedule for completing this rule is part of a consent decree with Environmental Defense and Sierra Club, which requires the EPA Administrator to complete a final rule

by February 17, 2010.

- In March 2009, EPA proposed emissions standards to reduce air toxics from a broader group of engines. Today's rule completes action on some of those engines. It does not cover stationary spark ignition RICE. EPA determined that additional emissions data should be collected prior to completing standards for these spark ignition engines.
- EPA will issue final emissions standards for existing spark ignition engines by August 10, 2010. That rule will cover spark ignition engines:
 - ◆ used at area sources of air toxics emissions and constructed or reconstructed before June 12, 2006,
 - ◆ used at major sources of air toxics emissions, have a site rating of less than or equal to 500 horsepower and constructed or reconstructed before June 12, 2006

FOR MORE INFORMATION

- The final rule is posted at: <http://www.epa.gov/ttn/oarpg/new.html>.
- Today's final 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 final 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.