

EPA FACT SHEET: Mercury and Air Toxics Standards

BENEFITS AND COSTS OF CLEANING UP TOXIC AIR POLLUTION FROM POWER PLANTS

On December 16, 2011, the U.S. Environmental Protection Agency (EPA) finalized the first national Clean Air Act standards to reduce mercury and other toxic air pollution from coal and oil-fired power plants. The science shows that mercury and toxic air pollution is a threat to public health and has real impacts on people’s lives. This fact sheet provides an overview of the benefits and highlights key impacts.

- **Protect public health**—The Mercury and Air Toxics Standards (MATS) will save thousands of lives and prevent more than 100,000 heart and asthma attacks each year while providing important health protections to the most vulnerable, such as children and older Americans.
- **Overdue reductions lead to vital health benefits**—Until now there were no national limits on emissions of mercury and other air toxics from power plants. Uncontrolled releases of toxic air pollutants like mercury – a neurotoxin – can impair children’s ability to learn.
- **Practical, cost-effective and protective standards**—More than 20 years ago, a bipartisan Congress passed the Clean Air Act Amendments and required EPA to control mercury and toxic air pollution. These standards will end 20 years of industry uncertainty while leveling the playing field for power plants, ensuring that modern pollution controls are installed.
- **Jobs for American workers**—The updated standards will create thousands of good jobs for American workers who will be hired to build, install, and operate the equipment to reduce health-threatening emissions of mercury, acid gases, and other toxic air pollutants.
- **Reliable, affordable energy**—The standards clean the air and keep the lights on.

IMPROVE AIR QUALITY, PROTECT PUBLIC HEALTH

<i>The Mercury and Air Toxics Standards Will Prevent:</i>	<i>Once Implemented (cases each year)</i>
<i>Premature Death</i>	<i>4,200 - 11,000</i>
<i>Chronic Bronchitis</i>	<i>2,800</i>
<i>Heart Attacks</i>	<i>4,700</i>
<i>Asthma Attacks</i>	<i>130,000</i>
<i>Hospital and Emergency Room Visits</i>	<i>5,700</i>
<i>Restricted Activity Days</i>	<i>3,200,000</i>

This chart shows the health benefits of the final standards to reduce mercury and other air toxics emissions from power plants

- The standards will provide significant benefits to neighborhoods near power plants as well as communities hundreds of miles away.
- In addition to reducing emissions of mercury and other toxic air pollutants, the controls needed to meet the standards will result in reduced emissions of sulfur dioxide and fine particles, which will lower airborne soot levels throughout the United States.
- The value of the air quality improvements for human health alone totals **\$37 billion** to **\$90 billion** each year.
- **540,000** missed work or “sick” days will be avoided each year, enhancing productivity and lowering health care costs.

- Uncontrolled releases of mercury from power plants can damage children’s developing nervous systems, reducing their ability to think and learn. Releases of other toxic air pollutants from power plants can cause a range of dangerous health problems in adults, from cancer to respiratory illnesses.
- Fish consumption advisories have been issued across the United States as a result of widespread mercury contamination in rivers, lakes, and streams.
- The benefits are especially important to minority, low income and other populations who are disproportionately impacted by asthma, other debilitating health conditions, or because mercury contamination prevents them from fully relying on fish as a food source.

OVERDUE REDUCTIONS LEAD TO VITAL HEALTH BENEFITS

- The final rule establishes power plant emission standards for mercury, acid gases, and non-mercury metallic toxic pollutants that will: prevent **90 percent** of the mercury in coal burned in power plants from being emitted to the air; reduce **88 percent** of acid gas emissions from power plants; and cut **41 percent** of sulfur dioxide emissions from power plants beyond the reductions expected from the Cross State Air Pollution Rule.
- Together, MATS and the Cross-State Air Pollution Rule are estimated to provide annual benefits of **\$150-\$380 billion** and prevent 18,000 – 46,000 premature deaths, 540,000 asthma attacks, 13,000 emergency room visits and 2 million missed work or school days each year.

PRACTICAL, COST-EFFECTIVE AND PROTECTIVE STANDARDS

- EPA’s MATS standards are practical, cost-effective, and protective. After proposal, EPA received more than 900,000 comments. Based on this input and data, the agency has finalized standards that follow the law, maintain vital and significant health benefits and can be implemented for \$9.6 billion, about a billion dollars less than the proposed standards. That means that for every dollar spent to reduce pollution, Americans get **\$3-9** in health benefits in return.
- There are also benefits to the economy. To meet the MATS standards, many power plants will upgrade their operations with modern and widely available pollution control technology, helping to modernize an aging fleet of power plants, most of which are over **30 years old** and many of which are over **50 years old**.

JOBS FOR AMERICAN WORKERS

- EPA expects most facilities will comply with MATS through a range of strategies, including the use of existing emission controls, upgrades to existing emission controls, installation of new pollution controls, and fuel switching. Many facilities will need workers to build, install, operate and maintain these pollution controls.

- EPA estimates that implementing this rule will provide employment for tens of thousands of Americans, by supporting **46,000** short-term construction jobs and **8,000** long-term utility jobs.

RELIABLE, AFFORDABLE ENERGY

- For 40 years, we have been able to both implement the Clean Air Act and keep the lights on. MATS will not change that.
- EPA and Department of Energy analyses indicate that there will be more than enough electric generating capacity to meet the nation's needs. EPA's analysis projects 4.7 gigawatts will retire out of the more than 1000 gigawatts that make up the nation's electric generating capacity. That's less than **one half of one percent**.
- Facilities generally have up to **four** years to meet the standards, providing enough time for them to install pollution controls to protect Americans' health, while continuing to meet the nation's needs for reliable, affordable energy.
- In the event that a localized reliability issue arises, EPA has also issued an enforcement policy under its Clean Air Act authority that provides a well-defined pathway for generating units that are shown to be necessary to maintain electric reliability and units could, on a case-by-case basis, obtain a schedule of up to an additional year to achieve compliance.
- Electricity rates are projected to stay well within normal historical fluctuations. EPA modeling indicates that these standards will result in relatively small changes in the average retail price of electricity (approximately **3 percent**), primarily due to increased demand for natural gas, keeping electricity prices below 1990 levels.

BACKGROUND

- There are about **1,400** coal- and oil-fired electric generating units (EGUs) at **600** power plants that emit harmful pollutants including mercury, non-mercury metallic toxics, acid gases, and organic air toxics including dioxin.
- Power plants are currently the dominant emitters of mercury (**50 percent**), acid gases (over **75 percent**) and many toxic metals (**20-60 percent**) in the United States.

FOR MORE INFORMATION

The final rule, as well as supporting technical information and other regulatory documents, are available online at: <http://www.epa.gov/mats>