

Testimony
EPA's Proposed Rule
“National Emission Standards for Hazardous Air Pollutants
from Coal- and Oil-fired Electric Utility Steam Generating
Units and Standards of Performance for Fossil-Fuel-Fired
Electric Utility, Industrial-Commercial-Institutional, and
Small Industrial-Commercial-Institutional Steam Generating
Units”
Docket Number EPA-HQ-EPA-HQ-OAR-2009-0234

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My name is Mandy Warner and I am a Climate and Air Policy Specialist with Environmental Defense Fund (EDF), a non-partisan environmental organization with more than 700,000 members nationwide. EDF is dedicated to working towards innovative, cost-effective solutions to environmental problems, building on a foundation of sound science, economics, and law.

Thank you for the opportunity to testify today. EPA's Proposed Mercury and Air Toxics Rule for power plants will provide long overdue health protections for all Americans. EDF supports EPA's Proposed Rule, yet given the availability of cost-effective, made-in-America technology solutions urges the agency to strengthen the standards for coal-fired power plants to secure even greater health and environmental benefits.

Background

Over two decades ago, the U.S. Congress took the vital step of identifying mercury and other toxic contaminants as harmful and hazardous air pollutants as part of the 1990 Clean Air Act Amendments. In the year 2000, after years of careful study, the EPA determined that it was “appropriate and necessary” to control mercury and other toxic air contaminants from power plants. Now, over twenty years after the Clean Air Act Amendments, EPA's Proposed Rule represents a long overdue and critical step in the right direction towards protecting American human health by reducing mercury and air toxics from the largest unregulated source: coal-fired power plants.

Health and Environmental Benefits of the Proposed Rule

Mercury is a toxic heavy metal that contaminates water bodies across the nation, threatens the development of newborns and children, and contributes to the risk of heart disease. Human exposure through consumption of contaminated fish and shellfish can harm the brain, heart, kidneys, lungs, and immune system of people of all ages. Unborn babies and young children are particularly vulnerable, since mercury exposure can impair normal brain development, reducing IQ and damaging the ability to think and learn later in life. Hundreds of thousands of U.S. newborns are affected by mercury each year.ⁱ According to the EPA's National Listing of Fish Advisories, in 2008 nearly half of all U.S. river-miles and lake-acres were under water contamination advisories – 80% of which were issued because of mercury contamination (that's some 17 million lake-acres and 1.3 million river-miles under mercury-related contamination advisories).ⁱⁱ

According to EPA, the Proposed Rule will prevent 91% of the mercury in coal burned in power plants from being emitted into the air. The health benefits of these regulations will benefit Americans across the country. EPA estimates that, when carried out, these pollution reductions will annually prevent up to 17,000 premature deaths, 11,000 heart attacks, 120,000 asthma attacks, over 12,000 hospital and emergency room visits, 4,500 cases of chronic bronchitis, and will provide various other health benefits. These benefits are particularly critical for minority and low income populations who are disproportionately impacted by asthma and other health conditions.ⁱⁱⁱ

Economic Benefits of the Proposed Rule

EPA found that the quantified health benefits of this rule will outweigh the costs by 5–13 times, representing up to \$130 billion in net benefits every year once the rule is in place. These benefits do not even include the value of many serious health impacts from mercury and other air toxics that will be reduced. Some of the potential health impacts of mercury not quantified include impaired cognitive development, fatal and non-fatal heart attacks, genetic effects, and reproductive and other effects in fish and wildlife.^{iv}

Scope of the Problem

EDF completed a report earlier this year identifying the top 25 emitters of mercury air emissions from the electric sector. Our analysis found that these 25 plants, which account for only 8% of the country's generating capacity, are responsible for almost a third of all mercury emissions from coal-fired power plants.^v A study conducted in Ohio found that coal combustion accounted for about 70% of the mercury present in rainfall at the study site and that local and regional sources were responsible for the majority of the mercury deposition.^{vi} Another study in Ohio confirmed that mercury emissions from coal-fired power plants have significant local impacts, finding that 42% of the mercury in samples of rain could be traced back to a coal-fired power plant that was less than a mile away.^{vii}

Local Impacts

Pennsylvania was the second highest emitter of mercury air emissions among coal-fired power plants in 2009. There were 89 reported statewide and water body mercury fish consumption advisories in Pennsylvania as of March of this year. Pennsylvania was also home to two of the top 25 emitters of mercury in 2009: the Keystone and Conemaugh plants. We understand that these plants have recently made investments in pollution control technologies and look forward to learning more about the emission reductions achieved. Furthermore, we welcome the company's announcement that they plan to meet any emission standards promulgated, including those for mercury, for these plants.^{viii}

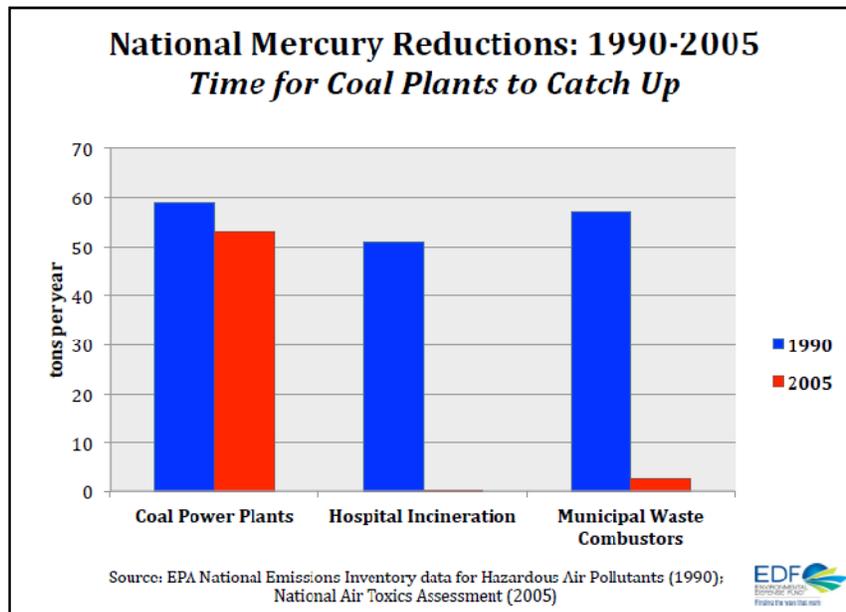
Technology Solutions are Widely-Available and Cost-Effective

The good news is that technology solutions are available to reduce mercury and air toxics from power plants. Activated Carbon Injection (ACI), for example, is a widely-available, cost-effective technology solution that works for all types of coal and boiler configurations, can reduce mercury pollution by about 90%, and can be installed in under 18 months.^{ix} According to the Institute of Clean Air Companies, over 55,000 MW, for approximately 140 coal plant units, of ACI have been ordered or installed.^x

A recent analysis on the achievability of the Proposed Rule's standards identified over two dozen coal-fired units that are already meeting all of the emission standards, many of which are exceeding the standards significantly.^{xi} For example, of these units the range of mercury emission rates was from 0.005 to 0.858 lb/TBtu, compared to EPA's much higher proposed standard of 1.0 lb/TBtu for existing coal-fired power plants.^{xii} Furthermore, the lignite-burning facility that is in compliance with all of the proposed standards emits 1.11 lb/TBtu, about 75% lower than what EPA is proposing for that type of coal. The analysis demonstrates that the technology is able to achieve much greater reductions of mercury, acid gases, and non-mercury metals than EPA is proposing. We urge EPA to set stronger standards to ensure greater health and environmental protections.

Time for Coal Plants to Catch Up

The fact of the matter is, power plants have been on notice for over a decade that they would be required to reduce mercury emissions and some have already done so. Other sectors like hospitals and municipal waste incinerators have reduced their emissions substantially; now it is time for coal-fired power plants to do their fair share.



EDF looks forward to submitting more detailed comments on the Proposed Mercury and Air Toxics Rule to EPA. Thank you again for the opportunity to testify and I am happy to answer any questions you may have.

ⁱ Kathryn R. Mahaffey, NHANES 1999-2002 Update on Mercury & Northeast Regional Mercury Conference, U.S. EPA, April 2006

ⁱⁱ EPA, National Listing of Fish Advisories, 2008
http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories/upload/2009_09_22_fish_advisories_nlfslides.pdf

ⁱⁱⁱ Regulatory Impact Analysis of the Proposed Toxics Rule: Final Report, March 2011.

^{iv} Regulatory Impact Analysis of the Proposed Toxics Rule: Final Report, March 2011.29.

^v Environmental Defense Fund Analysis, “Mercury Alert: Cleaning up Coal Plants for Healthier Lives,” March 2011. http://www.edf.org/documents/11661_mercury-alert-cleaning-up-coal-plants.pdf

^{vi} Keeler, Gerald J., Matthew S. Landis, Gary A. Norris, Emily M. Christianson, and J. Timothy Dvonch. 2006. Sources of Mercury Wet Deposition in Eastern Ohio, USA. *Environmental Science and Technology* (40) 19 5874-81.

^{vii} White, Emily M., Gerald J. Keeler, and Matthew S. Landis. 2009. Spatial Variability of Mercury Wet Deposition in Eastern Ohio: Summertime Meteorological Case Study Analysis of Local Source Influences. *Environmental Science and Technology* 43(13) 4946–53.

^{viii} Pittsburgh Post Gazette, “Proposed EPA rule is first to limit mercury emissions,” March 17, 2011.
<http://www.post-gazette.com/pg/11076/1132600-84.stm#ixzz1NCrCS3Hy>

^{ix} EPA’s Proposed Utility Air Toxics Rule, Briefing by the Clean Energy Group, Constellation Energy, Institute of Clean Air Companies, and Analysis Group. David C. Foerter, Executive Director, Institute of Clean Air Companies, May 9, 2011.

^x Environmental Defense Fund Analysis, “Mercury Alert: Cleaning up Coal Plants for Healthier Lives,” March 2011. http://www.edf.org/documents/11661_mercury-alert-cleaning-up-coal-plants.pdf and U.S. Government Accountability Office. 2009. Mercury Control Technologies at Coal-Fired Power Plants Have Achieved Substantial Emissions Reductions.

^{xi} EPA’s Proposed Utility Air Toxics Rule, Briefing by the Clean Energy Group, Constellation Energy, Institute of Clean Air Companies, and Analysis Group. Michael J. Bradley, President, M.J. Bradley & Associates, May 9, 2011.

^{xiii} Ibid.