Before the United States Senate
Subcommittee on Clean Air and Nuclear Safety

"Oversight: Review of the Environmental Protection Agency's Mercury and Air Toxics Standards (MATS) for Power Plants"

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Chairman Carper, Ranking Member Barrasso, and members of the Subcommittee, thank you for the opportunity to testify about the U.S. Environmental Protection Agency's Mercury and Air Toxics Standards.

My name is Vickie Patton. I serve as General Counsel of Environmental Defense Fund, a national non-partisan, non-profit environmental organization. I previously served as an attorney in the U.S. Environmental Protection Agency's Office of General Counsel under the George H.W. Bush and William Clinton administrations where I worked on a variety of Clean Air Act matters.

OVERVIEW

In 1990, the 101st Congress charted the course for our nation to address the most toxic airborne contaminants. The 1990 Clean Air Act Amendments, forged into law with strong bipartisan support (passing the United States Senate 89-10 and the House of Representatives 401-25) and signed into law by President George H.W. Bush, identified the most hazardous air pollutants as warranting the maximum achievable reductions including: mercury, arsenic, chromium and acid gases such as hydrochloric acid and hydrofluoric acid. The law also singled out the hazardous air pollution from power plants instructing EPA to assess the reasonably anticipated public health hazards and, in turn, directing EPA to determine if regulation is "appropriate and necessary." Coal- and oil-fired power plants are the nation's single largest manmade source of major toxic air contaminants, responsible for approximately 50 percent of mercury pollution, 77 percent of acid gases, and 62 percent of arsenic emissions.

On February 16, 2012, more than two decades after the enactment of the 1990 Clean Air Act Amendments, EPA published the *Mercury and Air Toxics Standards* containing final national emission standards limiting the mercury, arsenic, chromium, acid gases and other toxic airborne contaminants discharged from coal- and oil-fired power plants. The standards will provide healthier and longer lives for millions of Americans and protect our most vulnerable population, America's children, from profoundly dangerous air pollution.

When implemented, the *Mercury and Air Toxics Standards* will annually prevent as many as 11,000 deaths, 4700 heart attacks, 130,000 asthma attacks, over 500,000 missed work days due to illness, and over 3 million unhealthy air days. The standards will deliver vital human health protections valued at $37 billion to $90 billion each year, deploying commonly available and widely implemented cost-effective clean air solutions. The nation's investment in healthier air for our children will mobilize jobs across the country. The Economic Policy Institute projects these clean air standards will create 85,000-117,000 jobs between now and 2015.[1]

Over a dozen states -- including Colorado, Delaware, Illinois, Maryland, Michigan, Minnesota, Montana, New Jersey, Oregon and Wisconsin -- adopted state protections to limit mercury from coal-fired power plants well before the *Mercury and Air Toxics Standards* were finalized. Numerous power companies contracted for the installation of advanced mercury controls before federal protections were adopted, bookings in October 2011 tallied 175 electric generating units reflecting 55,000 megawatts of coal-fired capacity combusting all coal types.[2]

The final standards provide an adaptive compliance framework that will secure the vital life-saving benefits under these clean air standards while addressing any source-specific reliability issues that could potentially arise. The Congressional Research Service recently examined the final standards through the lens of reliability concerns expressed by industry finding: "Furthermore, to address the reliability concerns expressed by industry, the final rule includes provisions aimed at providing additional time for compliance if it is needed to install pollution controls or add new capacity to ensure reliability in specific areas. As a result, it is unlikely that electric reliability will be harmed by the rule."[3]

Many companies -- including investor owned utilities, rural electric cooperatives, municipal utilities and independent power producers -- have indicated they are prepared to comply with the final standards. Xcel Energy one of the nation's largest electricity providers, serving 3.4 million customers in Colorado, Michigan, Minnesota, New Mexico, North Dakota, South Dakota and Texas, recently stated it is "well positioned to comply with a number of new environmental standards and regulations, like this one, thanks to early actions we have taken to modernize our generation and mitigate future environmental compliance costs."[4]

The leaders of PG&E, Calpine, NextEra, Public Service Enterprise Group, National Grid USA, Exelon, Constellation Energy Group, and Austin Energy explained in the pages of

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[1] Josh Bivens, *The 'Toxics Rule' and Jobs: The job-creation potential of the EPA's new rule on toxic power-plant emissions,* Economic Policy Institute (Feb. 7, 2012).

[2] Institute of Clean Air Companies, *Commercial Mercury Specific Bookings,* as of Oct. 24, 2011, http://www.icac.com/files/public/Commercial_Installations_Public_%20October_2011.pdf

[3] Id. at *Summary.*

[4] Chris Hubbbuch, "Dairyland, Xcel prepared for mercury rules," LaCrosse Tribune, Dec. 22, 2011.

the *Wall Street Journal* that many companies have long prepared for these clean air standards:

> The electric sector has known that these rules were coming. Many companies, including ours, have already invested in modern air-pollution control technologies and cleaner and more efficient power plants. For over a decade, companies have recognized that the industry would need to install controls to comply with the act's air toxicity requirements, and the technology exists to cost effectively control such emissions, including mercury and acid gases.[5]

The public support for EPA's final *Mercury and Air Toxics Standards* is extensive, encompassing public health associations, organizations representing African-Americans and Latino-Americans, consumer affiliations, and small business groups, including the following: the American Heart Association, American Lung Association, American Public Health Association, League of United Latin American Citizens, NAACP, the Small Business Majority, and Consumers Union. The Executive Director of the American Public Health Association heralded the health protections for Americans: "Implementing these critically needed standards could mean the difference between a chronic debilitating, expensive illness or healthy life for hundreds of thousands of American children and adults."

Mercury, one of the toxic contaminants addressed by these standards, is a bioaccumulative neurotoxin that imperils the brain development of infants and children. Over 400,000 infants are born each year with mercury contamination exceeding safe levels. Full compliance with EPA's *Mercury and Air Toxics Standards* for coal- and oil-fired power plants will be required more a quarter century after the adoption of the 1990 Clean Air Act Amendments, during which time millions of infants will have been exposed to unsafe mercury levels.

On February 16, 2012, Senator James Inhofe introduced S.J. Res. 37, a Joint Resolution to disapprove these fundamental safeguards. Under the plain terms of the Congressional Review Act, enactment of S.J. Res. 37 would prohibit EPA from adopting new emission standards for mercury and other air toxics discharged by power plants that are "substantially the same" thereby preventing EPA from acting under our nation's clean air laws to address the largest source of hazardous air contaminants such as mercury, arsenic and acid gases.[6] S.J. Res. 37 would not only prolong the tragic delay in protecting

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[5] Letter to the Editor, Wall Street Journal, "We're OK With EPA's New Air-Quality Regulations," Dec. 8, 2010.

[6] The CRS report quotes a joint statement by the Congressional Review Act's principal sponsors:

> If the law that authorized the disapproved rule provides broad discretion to the issuing agency regarding the substance of such rule, the agency may exercise its broad discretion to issue a substantially different rule. If the law that authorized the disapproved rule did not mandate the promulgation of any rule, the issuing agency may exercise its discretion not to issue any new rule. Depending on the law that authorized the rule, an issuing agency may have both options. *But if an agency is mandated to promulgate a particular*

America's infants and children from toxic mercury but it would forever relegate generations of American children to lives poisoned by mercury, thwarting the bipartisan vision forged into law in 1990 for a healthier, stronger and more prosperous America.

MERCURY IS A BIOACCUMULATIVE NEUROTOXIN THAT HARMS HUMAN HEALTH AND THE ENVIRONMENT

Mercury is a toxic heavy metal that contaminates water bodies across the nation and threatens the brain development of infants and children.

Mercury vented into ambient air returns to Earth in precipitation or attached to particles, and through runoff or deposition can end up in lakes, rivers and the ocean. Toxic methylmercury results from the transformation of mercury by microorganisms in the sediments of water bodies. The methylated mercury readily accumulates in the aquatic food chain with the concentrations increasing at each level in the food chain.

According to EPA, the concentrations of mercury and other bioaccumulative contaminants in fish tissue far exceed the concentrations found in the waterbodies: "top predators in a food chain (e.g., largemouth bass, walleye) may have concentrations of bioaccumulative contaminants in their tissues that are often orders of magnitude higher than the concentrations found in the water."[7]

All Fifty States Have Mercury Fish Consumption Advisories

Humans are exposed to methylmercury predominantly through the "[c]onsumption of contaminated fish."[8] As of 2010, 50 states have mercury fish consumption advisories. An estimated 3,710 total advisories for mercury have been issues at water bodies across the nation encompassing 16.4 million lake acres and 1.1 million river miles.

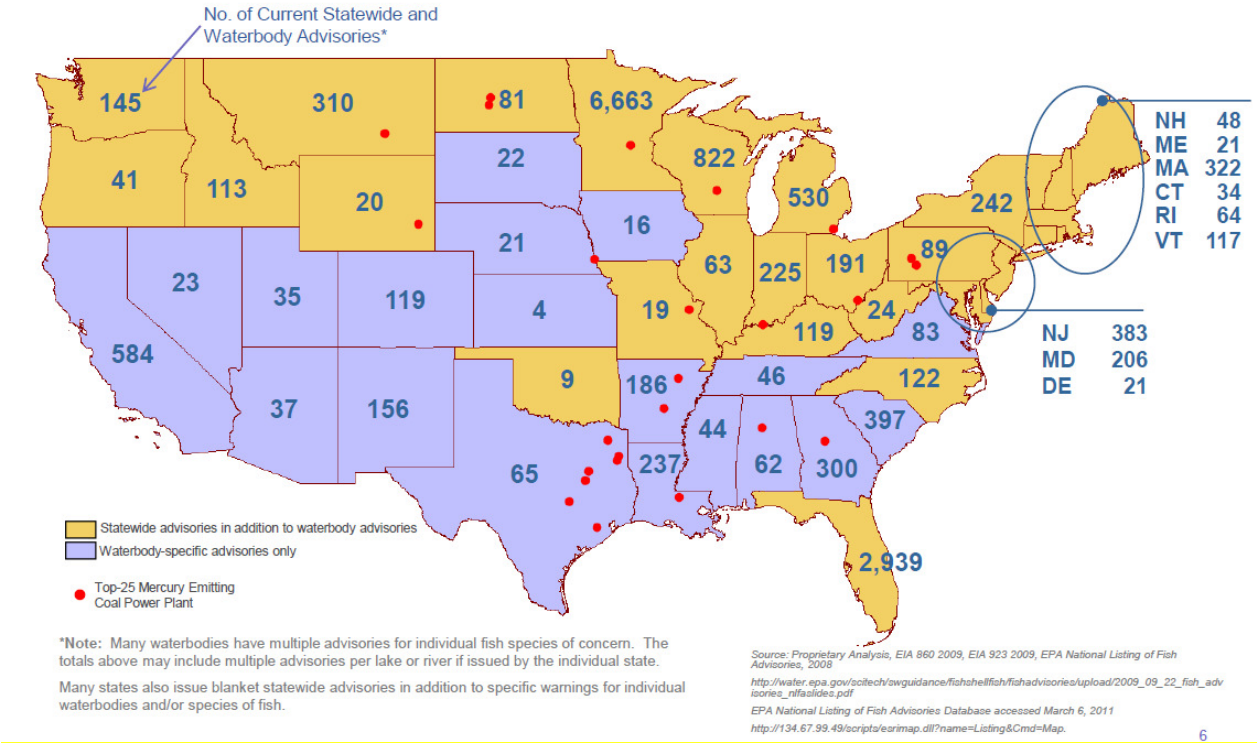
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rule and its discretion in issuing the rule is narrowly circumscribed, the enactment of a resolution of disapproval for that rule may work to prohibit the reissuance of any rule.

Morton Rosenberg, Congressional Research Service, Congressional Review of Agency Rulemaking: An Update and Assessment of The Congressional Review Act after a Decade (May 2008) (citing Joint Explanatory Statement of House and Senate Sponsors, 142 Cong. Rec. E 571, at E 577 (daily ed. April 19, 1996); 142 Cong. Rec. S 3683, at S 3686 (daily ed. April 18, 1996)) (emphasis added).

[7] U.S. EPA, 2010 Biennial National Listing of Fish Advisories, Fact Sheet, EPA-820-F-11-014 (Nov. 2011), at p. 3.

[8] Leonardo Trasande, Philip J. Landrigan, and Clyde Schechter, *Public Health and Economic Consequences of Methyl Mercury Toxicity to the Developing Brain*, Environmental Health Perspectives, Vol. 113, No. 5 (May 2005).



Mercury Threatens the Neurological Development of Newborns and Young Children

Methylmercury is known to cause severe damage to growing nerves and impede brain development, particularly in infants and children. Exposure to methylmercury in the womb can impact development of the central nervous system, and cause children to have lower IQs leading to difficulty thinking and learning. Each year, over 400,000 American newborns are exposed to unsafe levels of methylmercury in utero. The risks from contamination do not disappear after birth, as methylmercury can also be transferred from breastfeeding mothers to their infants.[9]

The developing brain of infants and young children is distinctly vulnerable to exposure of methylmercury:

> The vulnerability of the developing brain to methyl mercury reflects the ability of lipophilic methyl mercury to cross the placenta and concentrate in the central nervous system (Campbell et al. 1992). Moreover, the blood-brain

[9] Bose-O'Reilly et al, *Mercury Exposure and Children's Health*, Curr Probl Pediatr Adolesc Health Care. 2010 September; 40(8): 186–215. doi:10.1016/j.cppeds.2010.07.002. [hereinafter Bose-O'Reilly 2010].

> barrier is not fully developed until after the first year of life, and methyl mercury can cross this incomplete barrier (Rodier 1995).[10]

The National Academy of Sciences' National Research Council found that the brain development of infants and young children is threatened by chronic, low-dose environmental exposures to methylmercury:

> Chronic, low-dose prenatal [methylmercury] exposure from maternal consumption of fish has been associated with more subtle end points of neurotoxicity in children. Those end points include poor performance on neurobehavioral tests, particularly on tests of attention, fine-motor function, language, visual-spatial abilities (e.g., drawing), and verbal memory.[11]

In its toxicological assessment of methylmercury-related health effects in 2000, the National Research Council concluded that neuro-developmental impacts from prenatal methylmercury exposures are the most sensitive and well-documented health endpoint.[12] In children, low-dose exposures to methylmercury may produce deficits in vision and hearing, delayed walking and speech development, and other developmental delays.[13]

Mercury has no biologically beneficial function. In a recent letter to President Obama, leading mercury scientists explained the biochemical mechanism associated with mercury's toxicity: "Mercury is such a potent toxin because it bonds very strongly to functionally important parts of proteins including enzymes, antibodies and nerve growth-cones that keep cells alive, 'intelligent' and safe. Target enzymes, organs, or metabolic pathways vulnerable to mercury poisoning may change from cell to cell, person to person and in the same individual over time. Regardless, minimizing all mercury exposure is essential to improving human, wildlife and ecosystem health because *exposure to mercury in <u>any</u> form places a heavy burden on the biochemical machinery within cells of all living organisms*."[14]

MERCURY IS ASSOCIATED WITH DEPOSITION HOT SPOTS AND BIOLOGICAL HOT SPOTS

Scientists at the University of Michigan and EPA conducted an extensive mercury monitoring and source apportionment study to evaluate the potential connection between local and regional coal plants and mercury deposited in the Ohio River Valley. The study was based on a two-year record of mercury deposition monitored in Steubenville, Ohio at

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[10] Leonardo Trasande, Philip J. Landrigan, and Clyde Schechter, *Public Health and Economic Consequences of Methyl Mercury Toxicity to the Developing Brain*, Environmental Health Perspectives, Vol. 113, No. 5 (May 2005), at p. 50.

[11] National Academy of Sciences National Research Council, *Toxicological Effects of Methylmercury* 4 (2000), *available at* http://www.nap.edu/catalog/9899.html.

[12] *Id.*

[13] Castoldi, Coccini, Ceccatelli, & Manzo, *Neurotoxicity and molecular effects of methylmercury*, 55 Brain Res. Bull. 197, 203 (2001).

[14] Letter of 23 leading mercury scientists and physicians to President Barack Obama, Dec. 13, 2011(http://grist.files.wordpress.com/2011/12/mercury_scientists_in_support_of_the_mats.pdf)

the campus of Franciscan University. Seventeen coal plants are located within 100 kilometers of the monitoring site. The study found that local and regional coal plants accounted for an estimated 70% of the mercury deposited during precipitation events:

> Results of multivariate statistical analysis (~70% of the Hg in the wet deposition at Steubenville coal combustion sources), and meteorological analysis (highlighting the importance of local regional sources), consistently point toward the dominant influence by local and regional coal-burning sources.[15]

Another major field study examined the potential for biological mercury hot spots, defined as areas with elevated concentrations of mercury in biota (e.g., fish, birds, mammals) that exceed established human or wildlife health criteria as determined by a statistically adequate sample size.[16] The study assessed over 7,000 observations of mercury concentrations for seven species including yellow perch and the common loon while also considering factors such as surface water chemistry and land cover.

The Merrimack River watershed was identified as a biological hot spot, and further investigation revealed both the potential for local emission sources to amplify the adverse biological effects of mercury in the watershed and, conversely, the benefits of measures to reduce emissions from large local sources of mercury. Modeling analysis, for example, suggested "that emissions from coal-fired power plants in the study region account for a large fraction of the total Hg deposited in the Merrimack River watershed hotspot."[17] The data also showed biological exposure to mercury "can change rapidly in response to changes in atmospheric emissions and deposition from local and regional sources."[18] Protective emission limitations on the mercury from local incinerators substantially reduced overall mercury in the region. The field data revealed "consistency between the timing and magnitude of Hg emissions reductions and the declines in Hg concentrations in common loons, fish, and zooplankton."[19]

Measures to reduce mercury in southern Florida similarly revealed the close nexus between large local sources of mercury and local impacts. Mercury emissions in south Florida were reduced by about 90 percent largely due to rigorous mercury emission limitations on incinerators. The mercury in the fish and wildlife of the Everglades, in turn, declined by about 75 percent.[20]

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[15] Gerald J. Keeler, Matthew S. Landis, Gary A. Norris, Emily M. Christianson, and J. Timothy Dvonch, *Sources of Mercury Wet Deposition in Eastern Ohio, USA,* Environ. Sci. Technol., Article 10.1021/es060377q S0013-936X(06)00377-4 (published on web Sept. 8, 2006).
[16] David C. Evers, Young-Ji Han, Charles T. Driscoll, Neil C. Kamman, M. Wing Goodale, Kathleen Fallon Lambert, Thomas M. Holsen, Celia Y. Chen, Thomas A. Clair, and Thomas Butler, *Biological Mercury Hotspots in the Northeastern United States and Southeastern Canada,* BioScience, Vol. 57, No. 1 (Jan. 2007) at pages 29-30.
[17] *Id.* at p. 41.
[18] *Id*. at p. 38.
[19] *Id.* at p. 39.
[20] Florida Dept. of Environmental Protection, *South Florida Mercury Science Program,* available at: http://www.dep.state.fl.us/labs/mercury/index.htm.

In Massachusetts, a multi-year monitoring program found that substantial declines in mercury concentrations in yellow perch and largemouth bass were consistent with substantial reductions in mercury pollution from several local incinerators.[21]

Field studies demonstrate that deposition and bioaccumulative effects of mercury emissions can have a cascade of local impacts. Conversely, empirical data show that measures to reduce nearby sources of industrial mercury pollution can secure rapid, real-world results in cooling hot spots and protecting human health and the environment.

THE MERCURY AND AIR TOXICS STANDARDS PROVIDE VITAL HEALTH PROTECTIONS FOR MILLIONS OF AMERICANS

Coal- and oil-fired power plants are the nation's single largest manmade source of major toxic air contaminants, responsible for approximately 50 percent of mercury pollution, 77 percent of acid gases, and 62 percent of arsenic emissions. When implemented, the *Mercury and Air Toxics Standards* will annually prevent as many as 11,000 deaths each year, 4700 heart attacks, 130,000 asthma attacks, over 500,000 missed work days due to illness, and over 3 million unhealthy air days, delivering vital human health protections valued at $37 billion to $90 billion each year they are carried out.

NUMEROUS EXPERTS HAVE DETERMINED THE MERCURY AND AIR TOXICS STANDARDS WILL NOT IMPAIR THE RELIABLE FLOW OF ELECTRICITY

Analyses by the U.S. Department of Energy, the Congressional Research Service, the North American Electric Reliability Corporation, and M.J. Bradley & Associates/the Analysis Group address concerns that the Mercury and Air Toxics Standards would impair the reliable flow of electricity. The findings of these various assessments are summarized below:

Congressional Research Service (January 2012). In the principal analyses available since the rule was finalized, the Congressional Research Service reviewed reliability issues observing that other analyses did not account for adjustments made in the final rule: "Both the EEI and NERC analyses discussed above assumed requirements that appear to be substantially more stringent that what EPA has promulgated." [22] The final rule also provided for an adaptable compliance framework that was not accounted for in previous analyses: "Furthermore, to address the reliability concerns expressed by industry, the final rule includes provisions aimed at providing additional time for compliance if it is needed to install pollution controls or add new capacity to ensure reliability in specific areas. As a result, it is unlikely that electric reliability will be harmed by the rule."[23]

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[21] Massachusetts Dept. of Environmental Protection, *Freshwater Fish in Mass. Lakes Show Reductions in Mercury*, available at: http://www.mass.gov/dep/public/publications/mercury.htm.
[22] Congressional Research Service, *EPA's Utility MACT: Will the Lights Go Out?* R42144, January 2012, at p. 11.
[23] Id. at *Summary.*

M.J. Bradley & Associates and the Analysis Group. A November 2011 report issued by Michael J. Bradley & Associates and the Analysis Group found the US power generation fleet has significant excess capacity. The NERC Electric Reliability Regions in the U.S. have projected reserve margins ranging from 28% to over 40%, well above margins needed to maintain electric grid reliability. This reserve margin equates to an estimated 145 gigawatts of excess capacity. An additional 38 GW of generation capacity is currently under construction.[24]

U.S. Department of Energy. In December 2011, the Department of Energy's assessment of reliability determined the standards would not disrupt the reliable flow of electricity:

> Our review, combined with several other studies, demonstrate that new EPA rules – which will provide extensive public health protections from an array harmful pollutants – should not create resource adequacy issues. Any local reliability challenges that could arise should be manageable with timely cooperation and effective coordination among all relevant stakeholders. Working together, we can and will provide safe, reliable electricity to American consumers.[25]

The North American Electric Reliability Corporation (NERC). NERC establishes standards to ensure the reliability of the North American bulk electric system. It issued a report at the end of the year, preceding the final EPA standards, finding a number of available tools to mitigate potential reliability impacts:

> NERC identifies a number of tools that industry has available to mitigate potential reliability impacts from the implementation of EPA regulations. NERC's expectation is that industry and regulators will use these tools to ensure that bulk power system reliability is maintained as EPA regulations are finalized and implemented.[26]

THE FINAL STANDARDS WERE ACCOMPANIED WITH AN ADAPTABLE COMPLIANCE FRAMEWORK

As examined above, a body of studies concludes the *Mercury and Air Toxics Standards* will not impair reliability. Further, EPA made adjustments in the final standards incorporating an adaptable compliance framework to ensure grid reliability is protected while pollution controls are installed and modern, cleaner replacement generation is

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[24] M.J. Bradley & Associates and the Analysis Group, "Ensuring a Clean, Modern Electric Generating Fleet while Maintaining Electric System Reliability," November 2011.

[25] US Department of Energy, "Energy Department Releases Study of Electricity System Ahead of Proposed EPA Air Quality Standards," December 1, 2011. Available at: http://energy.gov/articles/energy-department-releases-study-electricity-system-ahead-proposed-epa-air-quality

[26] North American Electric Reliability Corporation, "2011 Long-term Reliability Assessment," November 2011 at 120. Available at: http://www.nerc.com/files/2011LTRA_Final.pdf .

constructed. Only the January 2012 CRS report considered these adjustments to EPA's final standards.

EPA's framework will ensure that the life-saving benefits of the rule will accrue rapidly while addressing any plant-specific reliability issues that could potentially arise.

3 Year Statutory Compliance: As specified under the Clean Air Act, all power plants will have three years to comply.

4th Year: A fourth year compliance extension will be "broadly available" to sources that require extra time to install controls and to address any local reliability issues. The rule states that under § 112(i)(3)(B) state "permitting authorities have the discretion to use this extension authority to address a range of situations," including "staggering installations for reliability reasons," to address "source-specific construction, permitting, or labor, procurement or resource challenges," and to allow "the installation of replacement power at the site." The rule also notes that the development of off-site replacement generation, transmission upgrades, and continued operation of a retiring plant while other plants install controls "may provide reasonable justification" for a fourth year extension where necessary to address a local reliability concern.

5th Year: In the rare situation where four years are insufficient, "reliability critical units" will be able to obtain "expeditious" administrative orders providing a 5th year to come into compliance. Under the compliance planning pathway developed by EPA's Office of Enforcement and Compliance Assurance, power companies will develop compliance plans; engage the relevant grid operator, FERC, and the public utility commission or service commission; analyze any reliability risk with the relevant grid authority; and apply for expeditious extensions under § 113(a) where necessary.

Beyond 5 Years: Sources needing a compliance pathway beyond 5 years to ensure reliability will be addressed on a case-by-case basis.

THE POWER INDUSTRY IS WELL-POSITIONED TO COMPLY WITH THE MERCURY AND AIR TOXICS STANDARDS

Numerous power companies have been preparing for more rigorous clean air protections and are well positioned to comply with the *Mercury and Air Toxics Standards* including municipal utilities, investor owned utilities, independent power companies, and rural electric cooperatives. Statements by a variety of power companies are summarized here:

- In Minnesota, **Rochester Public Utilities** noted that its "Silver Lake Plant has been prepared for the new mercury rules over the past two years with [an] emissions reduction project installed on Unit 4 in 2009."[27]

- The **Lower Colorado River Authority** says it is "well-positioned" to comply with the new EPA rules. LCRA says it has been "evaluating control technologies and will be installing appropriate technologies to ensure compliance within the established compliance timeframe."[28]

- **Dynegy** has stated that Illinois' Hennepin and Havana plants are expected to remain operating and in compliance – indeed, most of the upgrades have already been done in order to comply with Illinois' already "stringent" regulations, with which they have been complying since 2009. Kay Sullivan, Dynegy director of public relations, explained, "We anticipated the changes and saw the need to make an investment there. We're where we need to be."[29]

- **Public Service of New Hampshire's** mercury pollution controls at its coal-fired Merrimack Station power plant puts the state's largest utility in good stead to meet new federal pollution rules. PSNH said, "The really good news for New Hampshire is the mercury reduction law that the Legislature passed in 2006 put us on a path of compliance that synchs up very well with this new federal standard."[30]

- **Kansas City Power & Light** has already made extensive investments to control pollution of toxic metals, and as a result has said that it is "relatively well-positioned to meet the compliance deadlines of these new rules."[31]

- **Midwest Generation** has been developing and installing mercury emission controls at its plants since 2008, nearly all of the company's generating units are

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[27]Christina Killion Valdez, "Silver Lake Plant prepares for new mercury rules," The Post-Bulletin, December 24, 2011. http://www.postbulletin.com/news/stories/display.php?id=1480070

[28] Brenham Banner Press, "LCRA to comply with new EPA rules," December 23, 2012. http://www.brenhambanner.com/articles/2011/12/23/news/news01.txt

[29] Jeff Dankert, "Hennepin coal plant expects to comply with EPA regulation," News Tribune, December 23, 2011. http://www.newstrib.com/articles/news/nci/default.asp?article=31437&aname=Hennepin+coal+plant+expects+to+comply+with+EPA+regulation

[30] Denis Paiste, "PSNH Says Bow scrubber already meeting standards," New Hampshire Union Leader, December 23, 2011. http://www.unionleader.com/article/20111223/NEWS02/712239971

[31] William Seay, "KCP&L Responds to New EPA Power Plant Standards," The St. Joe Channel, December 23, 2011. http://stjoechannel.com/fulltext/?nxd_id=246487

already reducing mercury emissions by more than 90 percent and already comply with the USEPA's regulation of mercury emissions.[32]

- **Dairyland Power Cooperative** in Wisconsin says it is prepared to comply with the new rules. Dairyland has already implemented about half of its $400 million plan to install pollution controls on coal-fired plants in Genoa and Alma. "We have anticipated a rule like this," said spokeswoman Katie Thomspon. "We're well prepared to be in compliance with it."[33]

- **Xcel Energy** said "we are well positioned to comply with a number of new environmental standards and regulations, like this one, thanks to early actions we have taken to modernize our generation and mitigate future environmental compliance costs."[34]

- **PSEG**'s Vice President of policy and environment, Eric Svenson, said the MATS rules were "overdue" and praised the EPA for adopting a pragmatic approach. Mr. Svenson noted that, despite the outcry from some interest groups, much of the industry was already compliant with the new standards. PSEG has already spent about $1.6 billion on upgrading three of its power plants. [35]

Further, some companies, such as American Electric Power, have significantly lowered their estimated cost of compliance since the standards were finalized. In a February meeting with investors, AEP announced it had "cut its estimate for complying with EPA's mercury rule in Ohio to $400 million from last summer's estimate of $1.1 billion."[36]

PUBLIC SUPPORT FOR THE MERCURY AND AIR TOXICS STANDARDS IS EXTENSIVE

The public support for the *Mercury and Air Toxics Standards* is extensive. Leading public health associations, organizations representing African-Americans and Latino-Americans, consumer groups, and small business consortium support these clean air standards. Some statements of support are set out below:

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[32] Business Wire, "Midwest Generation completes installation of additional pollution controls," December 22, 2011. http://www.businesswire.com/news/home/20111222005573/en/Midwest-Generation-Completes-Installation-Additional-Pollution-Controls

[33] Chris Hubbuch, "Dairyland, Xcel prepared for mercury rules," LaCrosse Tribune, December 22, 2011. http://lacrossetribune.com/dairyland-xcel-prepared-for-mercury-rules/article_b612f370-2c50-11e1-aac7-0019bb2963f4.html#ixzz1hGiDoi58

[34] Id.

[35] Jeremy Lemer, "EPA toughens rules on US power emissions," Financial Times, December 21, 2011. Available online: http://www.ft.com/intl/cms/s/0/93e363ae-2c17-11e1-98bc-00144feabdc0.html#axzz1p7zFrFOI (accessed March 14, 2012)

[36] Martinson, Erica. "AEP: Costs of meeting power plant rule decline," *Politico*, February 24, 2012.

American Heart Association, Robert D. Brook, MD:
"This historic action taken today by the EPA will mean that all of us now and in the future can expect to suffer fewer cardiovascular problems caused by breathing harmful air pollutants from power plants, and also see a reduction in other health issues related to mercury and fine particulate matter. Though much progress has been made in cleaning our nation's air over the past few decades, these added safeguards should help to further reduce cardiovascular disease, the No. 1 killer in the United States. With these standards in place, generations of Americans will now be able to breathe even cleaner air, a fact we should all be proud of as a nation." American Heart Association, *American Heart Association Applauds New EPA Rule Limiting Power Plant Emissions*, Dec. 21, 2011.

American Lung Association, Albert A. Rizzo, MD, National Volunteer Chairman
"Since toxic air pollution from power plants can make people sick and cut lives short, the new Mercury and Air Toxics Standards are a huge victory for public health." American Lung Association, *Obama Administration Finalizes Life-Saving Mercury and Air Toxics Standards*, Dec. 21, 2011.

American Public Health Association, Alan Baker, Executive Director (Interim):
"Exposure to air pollution and toxic chemicals can cause asthma and heart attacks, harm those suffering from respiratory illness and in some cases lead to death. Implementing these critically needed standards could mean the difference between a chronic debilitating, expensive illness or healthy life for hundreds of thousands of American children and adults." American Public Health Association, *Air quality standards for coal-burning power plants offer long-awaited protections to public health, says American Public Health Association*, Dec. 21, 2011.

League of United Latin American Citizens (LULAC), Brent Wilkes, Executive Director:
"We support the new mercury and toxic air pollution rule announced today because it means that the health of our communities and families everywhere across the U.S. will face decreased risks for serious diseases associated with these pollutants. One of the most harmful effects of mercury pollution are birth defects and other developmental issues and with 39 percent of Latinos living near a power plant, we could not be happier to have this important new protection in place. The increased health costs and other expenses associated with these pollutants is also too heavy a burden to ask future generations to bear. These safeguards should be implemented immediately and without question by Congress." *Latino Groups Support Long Awaited Health Protections for Mercury and Air Toxics*, Dec. 21, 2011.

NAACP, Benjamin Todd Jealous, President and CEO:
"This rule is a smart, sensible and overdue step to limit the dangerous effects of these toxins and address the racially disparate impact of air pollution. The standards will save millions of dollars in medical expenses by helping to prevent new cases of asthma attacks and other respiratory diseases that often strike families that can least afford it, while advancing a healthier quality of life for families across the nation." NAACP, "*NAACP Applauds EPA's Mercury and Air Toxics Standards*," Dec. 20, 2011.

Consumers Union, Shannon Baker-Branstetter, Policy Counsel:
"The health risks that mercury exposure poses are serious, especially since those most at risk are children and other vulnerable populations. Mercury from large industrial sources contaminates the air we breathe and common foods that many Americans eat. Regulating mercury emissions is just a common sense way to protect consumers from these health hazards and today's announcement is a critical step towards that goal." Consumers Union, *New Mercury Rules Help Lower Pollution, Save Lives*, Dec. 21, 2011.

Small Business Majority, John Arensmeyer, Founder and CEO:
The Mercury and Air Toxics Rule is "supported by small business owners across the political spectrum, and on that will create much-needed jobs." Small Business Majority, "*MATS Rule Can Create Opportunities for Small Businesses*," February 16, 2012.

CONCLUSION

More than two decades after the passage of the 1990 Clean Air Act Amendments, EPA has adopted final national emission standards addressing the hazardous air pollutants from coal- and oil-fired power plants, including neurotoxic mercury.

The National Research Council's assessment of the toxicological effects of methylmercury found that young children bear profound health risks that can, tragically, prevent a child from realizing his or her full potential:

> The population at highest risk is the children of women who consumed large amounts of fish and seafood during pregnancy. The committee concludes that the risk to that population is likely to be sufficient to result in an increase in the number of children who have to struggle to keep up in school and who might require remedial classes or special education.[37]

The *Mercury and Air Toxics Standards* are long overdue safeguards to protect the most vulnerable in our society, our infants and children, from the largest sources of toxic air pollution through proven, cost-effective solutions.

[37] National Research Council, *Toxicological Effects of Methylmercury* at p. 9.