Before the United States House of Representatives
Committee on Energy and Commerce
Subcommittee on Oversight and Investigations

"Undermining Mercury Protections: EPA Endangers Human Health and the Environment"

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May 21, 2019

Chairwoman DeGette, Ranking Member Guthrie, 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 Heather Toney. I serve as National Field Director of Moms Clean Air Force, a community of over one million moms and dads united against air pollution and climate change for the sake of our children's health. I previously served as Regional Administrator for the Environmental Protection Agency's Southeast Region under President Barack Obama. I am also a former mayor, having served my hometown of Greenville, Mississippi, for two terms.

OVERVIEW

In February of 2019, Environmental Protection Agency (EPA) Administrator Andrew Wheeler formally proposed to withdraw a key underpinning of the Mercury and Air Toxics Standards (MATS), claiming that, as a result of an extremely limited accounting of the costs and benefits of the rule, the rule is not "appropriate and necessary."[1] The "appropriate and necessary" finding is an important legal yardstick under the Clean Air Act, and undoing this finding undermines the legal foundation of the rule, leaving it vulnerable to legal challenge.

EPA has continuously claimed that it is leaving the current standards for mercury emissions in place. But these claims are disingenuous and in direct conflict with the language of the proposed decision, which declares regulatory controls on mercury and other toxic emissions power plants "not appropriate."

Not only does the proposal directly attack the underlying justification for MATS, but EPA specifically solicits—in the first paragraph of its proposal—comment "on whether the EPA has the authority or obligation to delist [power plants] and rescind" MATS.[2] Indeed, EPA devoted much of its proposal to exploring and soliciting comment on "alternative interpretations" of the Clean Air Act and governing case law, including "two separate theories" under which "EPA would have

[1] 84 Fed. Reg. 2670 (Feb. 7, 2019).
[2] *Id.* (emphasis added).

authority to rescind the MATS rule."[3] EPA specifically noted that it "retain[ed] the discretion … to make changes in response to those comments prior to finalizing the rule."[4]

Because this proposal threatens the health of our children, Moms Clean Air Force brought more than 20 moms from 15 states to DC in March 2019 to testify at the one public hearing that EPA held about the proposal to undermine MATS. Given the significance of the proposal, Moms Clean Air Force requested multiple hearings in many parts of the country, but EPA has not responded to this request. By holding only one hearing on this proposal, EPA is limiting the input from key stakeholders across the country.

This action must be called out for what it is: A direct threat to our children's health. As parents, we find this unconscionable.

MERCURY AND AIR TOXICS: A SERIOUS AND FAR-REACHING HEALTH THREAT

Mercury is a highly toxic heavy metal that targets the nervous system. It occurs naturally in coal and when coal is burned without adequate pollution controls, mercury is released into the air. From there, it falls on waterways and can be transformed by microbial processes into methylmercury, and in this form enters the food chain. It then passes up the food chain into larger fish, birds, and mammals. Eating contaminated fish is a significant source of mercury contamination in people. Methylmercury bioaccumulates, or increases, with each level of the food chain, and attains its highest concentrations in species at the top of the food chain – including humans.[5]

Once we eat contaminated fish, methylmercury goes directly into the organs that have the most lipids, or fats, where it accumulates. It goes into our breasts and can be detected in human breast milk. It goes into our brains, where it can breach the blood-brain barrier. It goes into our umbilical cords, where it crosses the placental barrier to reach the fetus; a baby's brain has the highest concentration of lipids of any organ in its body.

As EPA found when it issued MATS, coal burning power plants are the largest source of human-caused mercury emissions in the United States.

Mercury Harms Human Health

Mercury is harmful to the developing brain. Mercury causes brain neuron degeneration, impairing the growth of the brain in ways that interfere with learning and thinking. Infants and children are at the highest risk because the developing central nervous system is particularly sensitive to methylmercury. Fetuses are also at high risk as pregnant women can pass mercury through their placenta into the brains of their developing babies. When a woman is pregnant, the mercury in her blood can harm her baby, even if it does not cause her any immediate health problems. At the

[3] *Id.* at 2678-79.
[4] *Id.* at 2674.
[5] *Mercury and Health: Key Facts*, World Health Org., https://www.who.int/news-room/fact-sheets/detail/mercury-and-health (last visited May 17, 2019)

highest levels of exposure the symptoms may be indistinguishable from cerebral palsy.[6] But even at lower levels, prenatal exposure can cause neurological harm including reductions in IQ, decreased performance on motor speed and language tests, impeded memory function and increased likelihood of ADHD.[7] Children exposed in utero can continue to exhibit adverse neurological effects throughout their lives.[8]

Mercury can also harm the health of older children and adults. It can negatively impact vision, motor function, hand-eye coordination, manual dexterity and muscular fatigue, and at higher levels can lead to coma and death.[9] For those who consume large amounts of fish, the negative effects of methylmercury on cognitive function far outweigh the benefits of omega-3 fatty acids.[10] Methylmercury has also been associated with acute coronary events, coronary heart disease and cardiovascular disease.[11] And methylmercury has been established as a possible carcinogen,[12] especially linked with leukemia and liver cancer.[13]

In 2005, researchers estimated that between 316,000 and 637,000 newborns were born each year in the United States with elevated mercury levels in their blood – levels associated with loss of IQ. The resulting loss of intelligence and lost productivity was calculated to cost $8.7 billion in 2000 dollars. Some $1.3 billion of that cost was attributable to mercury emissions from coal-fired power plants.[14] In addition, a 2015 peer reviewed study found that compared to a scenario without additional

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[6] United Nations Env't Programme, *Global Mercury Assessment* 38 (2002), http://wedocs.unep.org/bitstream/handle/20.500.11822/11718/final-assessment-report-25nov02.pdf?sequence=1&isAllowed=y.

[7] Margaret R. Karagas et al., *Evidence on the Human Health Effects of Low-Level Methylmercury Exposure*, 120 Envtl. Health Persp. 799 (2012); Philippe Grandjean et al., *Calculation of Mercury's Effects on Neurodevelopment*, 120 Envtl. Health Persp., a452, a452 (2012).

[8] Philippe Grandjean et al., *Cognitive Deficit in 7-Year-Old Children with Prenatal Exposure to Methylmercury*, 19 Neurotoxicology & Teratology 417, 417 (1997); Youssef Oulhote et al., *Aerobic Fitness and Neurocognitive Function Scores in Young Faroese Adults and Potential Modification by Prenatal Methylmercury Exposure*, 125 Envtl. Health Persp. 677, 680 (2017).

[9] United Nations Env't Programme, *Global Mercury Assessment* 38 (2002), http://wedocs.unep.org/bitstream/handle/20.500.11822/11718/final-assessment-report-25nov02.pdf?sequence=1&isAllowed=y.
Jean Lebel et al., *Neurotoxic Effects of Low-Level Methylmercury Contamination in the Amazonian Basin*, 79 Envtl. Res. 20, 28 (1998).

[10] Steven C. Masley, et al., *Effect of Mercury Levels and Seafood Intake on Cognitive Function in Middle-aged Adults*, 11 Integrative Med. 32, 32 (2012).

[11] *See* Jyrki K. Virtanen et al., *Mercury, Fish Oils, and Risk of Acute Coronary Events and Cardiovascular Disease, Coronary Heart Disease, and All-Cause Mortality in Men in Eastern Finland*, 25 Arteriosclerosis, Thrombosis, & Vascular Biology 228, 232 (2004).

[12] World Health Organization, Int'l Agency for Research on Cancer, *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Vol. 58 Beryllium, Cadmium, Mercury, and Exposures in the Glass Manufacturing Industry,* 277–83 (1993), https://monographs.iarc.fr/wp-content/uploads/2018/06/mono58.pdf.

[13] Nat'l Research Council, *Toxicological Effects of Methylmercury* 4 (2000), https://www.ncbi.nlm.nih.gov/books/NBK225778/pdf/Bookshelf_NBK225778.pdf.

[14] Leonardo Trasande et. al., *Public Health and Economic Consequences of Methyl Mercury Toxicity to the Developing Brain, Environ. Health Perspec.*, 113(5): 590–596 (2005).

mercury and air pollution controls, MATS was projected to yield (by 2050) cumulative lifetime benefits of avoided exposure of $147 billion for individuals affected, and cumulative economy-wide benefits (also by 2050) of $43 billion.[15]

Other Harmful Toxics from Coal Plants

Coal fired power plants release significant amounts of other toxic metals such as arsenic, chromium and nickel, all of which are known or probable human carcinogens. And acid gases cause lung damage and contribute to asthma, bronchitis and other chronic respiratory disease, especially in children and the elderly.[16] EPA also found that coal-burning power plants are the largest sources of many other hazardous air pollutants that cause serious health harms, including chromium, arsenic, nickel, selenium, hydrogen fluoride, hydrogen cyanide, and hydrogen chloride.[17]

Power plants also emit fine particulate matter ($PM_{2.5}$) that contributes to tens of thousands of premature deaths and hundreds of thousands of heart attacks, bronchitis cases, and asthma attacks every year.[18] $PM_{2.5}$ is associated with a host of adverse health effects, including decreased lung function, allergic responses, chronic obstructive pulmonary disease, lung cancer, and both acute and chronic cardiovascular effects.[19] It has also been linked to infant mortality.[20] People with heart or lung diseases, children, and older adults are the most likely to be affected by particle pollution exposure.

The Mercury and Air Toxics Standards Are Working and Provide Massive Public Health Benefits

EPA finalized the Mercury and Air Toxics Standards for Coal- and Oil-fired power plants in 2011. These standards set the first-ever national limits for power plants on toxic mercury pollution, acid gases, and other toxic air pollution like arsenic and chromium. The standards ensure that 90% of the mercury in coal burned by power plants is not released to the air. They also cut acid gas emissions by 88%, lower sulfur dioxide emissions by 41% and reduce emissions of toxic metals like arsenic, chromium, nickel, cadmium, lead, dioxins, selenium, and more.

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[15] A. Giang & N.E. Selin, *Benefits of Mercury Controls for the United States*, PNAS, 288 (2015), https://www.pnas.org/content/113/2/286.
[16] Environmental Protection Agency, Mercury and Air Toxics Standards, https://www.epa.gov/mats/healthier-americans#impacts (last visited May 17, 2019).
[17] 77 Fed. Reg. 9,304, 9,310-11, 9,335 (Feb. 16, 2012).
[18] Environmental Protection Agency, Mercury and Air Toxics Standards, https://www.epa.gov/mats/healthier-americans#impacts (last visited May 17, 2019).
[19] E. Alfaro-Moreno et al., *Particulate Matter in the Environment: Pulmonary and Cardiovascular Effects*, Curr. Opin. Pulm. Med., 13:98-106 (2007); Annette Peters, Stephanie von Klot, Margit Heier, *Exposure to Traffic and the Onset of Myocardial Infarction*, N. Engl. J. Med. 351:1721–1730 (2004); Annette Peters et al., *Increased Particulate Air Pollution and the Triggering of Myocardial Infarction*, 103:2810–2815 (2001).
[20] T.J. Woodruff, J.D. et al., *Fine Particulate Matter (PM2.5) Air Pollution and Selected Causes of Post-Neonatal Infant Mortality in California*, 114 Envtl. Health Persp., 786, 786 (2006).

The standards are lifesaving. They protect our health from the grave impacts of air pollution – from mercury and dozens of other harmful pollutants. Controlling for mercury emissions has the added benefit of reducing other harmful pollutants. This means that the benefits of the standards reach beyond mercury reductions. In addition to protecting the developing brains of babies from mercury pollution, according to EPA's own analysis, each year these standards prevent:

- 4,200-11,000 premature deaths
- 2,800 cases of chronic bronchitis
- 4,700 heart attacks
- 130,000 asthma attacks
- 5,700 hospital and emergency room visits
- 3,200,000 restricted activity days

These standards, along with other factors, have played an important role in reducing mercury emissions. Mercury emissions from power plants have declined more than 80% since the implementation of the standards. Mercury levels in Atlantic Bluefin tuna are now rapidly declining due to a shift away from coal. This shows us that the standards are working and that they are helping to clean up our waters – and protect the health of developing babies.

MOMS AND KIDS OPPOSE THE PROPOSAL TO WEAKEN THE MERCURY AND AIR TOXICS STANDARDS

EPA's mercury proposal would undermine life-saving, fully-implemented Mercury and Air Toxics Standards. There is broad opposition to this proposal not only from parents, children, and grandparents but also from doctors, nurses, faith leaders, anglers, conservationists, and more. Even the regulated industry itself opposes this proposal.

The proposal claims that MATS has provided only marginal health benefits, at too great a cost. This claim is based on an extremely narrow and badly distorted definition of what counts as benefits. Such a narrow definition hides significant health benefits (including thousands of real lives saved and illnesses avoided), so that the cost of compliance appears, falsely, to be unreasonably high. Ignoring the significant health benefits that accrue to tens of thousands each and every year due to the particulate reductions that occur as a result of MATS makes these benefits no less real or important for the people whose lives were extended, whose asthma attacks were prevented, or whose heart attacks were averted. Ignoring such benefits is a shell game played by an administrator and administration seeking to please coal company executives.

Moms Clean Air Force collected more than 22,000 comments in opposition to the proposal which we submitted to the EPA docket on the rule. Together with a diverse set of allies and partners, more than 350,000 comments in opposition to the proposal were submitted to the docket.

We also participated in person in the EPA public hearing on the proposal. More than 20 moms from 15 states came to DC in March 2019 to testify at the public hearing. Moms Clean Air Force and allies gathered these voices on behalf of more than one million members of Moms Clean Air Force, and for the sake of all children -- who deserve to grow up without toxic mercury in their brains and bodies.

Kari Noble, Iowa

Kari Noble traveled to D.C. from Iowa to participate in the public hearing. Her daughter has a developmental disability. As the mother of a child who struggles with a brain-based disability, Kari felt she had to speak out to support an effective, fully-implemented national standards that protect children from preventable neurological harm.

> "From both my personal experience as [my daughter's] mom and as someone who has worked with people with disabilities in other settings, I know how hard it can be for children with brain-based learning difficulties…. I know these children struggle and it is especially sad when I see a child or adult with a brain-based disability that could have been prevented. I wonder what their lives would have been like if circumstances could have played out differently. Knowing that in high doses, mercury can irreparably harm the brain, among other major organs of the body, and that it is a neurotoxin especially dangerous to children, that it can impair the growth of the brain in a way that interferes with learning and thinking, I think about my daughter and other children who struggle, sometimes from conditions that could have been prevented. Brain damage from mercury is one of those conditions.
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> "Like many of the children I have worked with who have learning difficulties, my youngest daughter has struggled her whole life compared to her peers. I have watched this strong, determined child grow up to be a resilient, resourceful young lady who tirelessly works, on her own timeframe, to meet her goals. However, in certain educational environments, she has had to struggle every day to try to keep up with her peers and meet the expectations of teachers who sometimes have not understood her learning style and needs….
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> "Children who have brain damage due to mercury and other air borne toxins from coal-fired energy plants can face obstacles which can profoundly alter their life trajectory and limit their potential."

Patrice Tomcik, Pennsylvania

Patrice traveled from Western Pennsylvania to deliver comments at the EPA hearing on the mercury proposal in March. Patrice lives in Gibsonia, close to two coal fired power plants within the greater Pittsburgh region – the Bruce Mansfield plant and the Cheswick Generating Station. As the mother of a child who is a cancer survivor, Patrice is adamant about the need to protect her son, whose immune system is compromised, from toxic pollution like mercury, arsenic, lead, chromium, and nickel. She asked EPA to withdraw the mercury proposal, because as a mother she cannot accept any attack on these health-protective standards.

> "In Pennsylvania, there are 16 coal fired power plants and thanks to the Mercury and Air Toxics Standards, 90% of my state's mercury pollution has decreased since 2011…. Because I live downwind from the Bruce Mansfield coal fired plant, I am concerned about the harmful pollution that spews out the stacks of the plant and what my children are breathing into their lungs.
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> "Children are especially vulnerable to air pollution because their bodies are still developing. My youngest son had cancer, and I know his immune system is compromised. Because I can't control the air he breathes, I depend on the EPA to do their job and protect him. I appreciate that MATS provide significant public health benefits by reducing mercury, arsenic, chromium, and nickel emissions. In the process of reducing these pollutants, coal

plants also reduce deadly particulate pollution and other forms of harmful air pollution. According to the EPA's own analysis, these standards protect our health from the grave impacts of other harmful air pollution known to cause premature deaths, asthma, chronic bronchitis, heart attacks, providing even greater benefits to my children and my community."

Mary Lyons, Minnesota

Great Grandmother Mary Lyons is an Ojibwe elder from the Leech Lake Band of Ojibwe in Minnesota. She traveled to DC to defend her homelands, and all the waters, plants, and animals who live there. The hundreds of mercury advisories issued for water bodies in Minnesota are what drive this respected elder to ask EPA to withdraw a proposal that could undermine the mercury standards.

"My homelands consist of over 11,842 Lakes and Rivers…. In Minnesota, we have over 1500 bodies of water with fish advisories due to mercury contamination. We as indigenous peoples have always depended on our watersheds to carry unfiltered water to drink from and take care of the fish without harm. Our animals, our lands are filled with our medicines, our plants as well as our berries and most precious, our wild rice, are in harm if they are exposed to mercury contamination. We are a humble group of people, we believe to be caretakers of Mother Earth and as long as we take care of her, she will take care of us.

"The quality of our air is very precious to us as it is the power that keeps our body alive with each breath. We would rather breathe in clean air than depending on an inhaler to keep our airways open. We cannot afford to have high levels of toxins in the air and expect to live as we all were originally intended to.

"We are concerned about our newborns being effected through the mother's exposure, what quality of life will they both live. We all share in a common wish for our children, to live to be our age or older. I am urging the EPA to withdraw this proposal that would weaken our Mercury and Air Toxics Standards. What we are asking here is a human right, please honor the right of the peoples, the animals and the plants well-beings to grow in a manner that we do not have to be afraid of getting sick or extinct."

Donovan Watt, Maine

Donovan is a sixth grader who lives in South Portland, Maine. He traveled to DC with his mom in March to talk about the impact of mercury pollution on his beloved state. He is concerned about air quality in a place where, due to wind patterns, he breathes pollution coming from Midwest coal plants. He is also concerned about Maine's fisheries, which have among the highest mercury levels in North America.

"I enjoy spending time outdoors. Whether it's playing basketball, or just riding my bike through the neighborhood, I cherish the quality of my community's environment…. I believe that weakening the standards…is a terrible mistake that will directly affect my family and my state.

"Our country's wind patterns bring air pollution from other states to our community in South Portland, Maine. So allowing more air toxins to enter our skies would affect Maine even more than other states. Personally, I have a lot of friends and peers who already suffer

from asthma and if the air quality gets worse, it will be that much more dangerous for them. I also have a little brother and a little sister who would be affected by this pollution if you pollute our air.

"In my state, fishing is one of the biggest businesses and we are known for some of the best seafood in the world. But there is already a health advisory on mercury issued by the state that says that children and pregnant women cannot safely eat a meal with fish more than twice in a week. If you allow more mercury to be released into our air, it will make eating seafood even more dangerous, and it could weaken the fishing economy in our state. Maine could possibly lose a large amount of money, also, because mercury levels in Maine fish are already among the highest in North America. If we roll back regulations on mercury levels, it will get worse."

Nikki Katrice White, South Carolina

Nikki is a native of Camden, South Carolina, where she lives with her two children and works in the healthcare industry. As a black mother living in the shadow of the local coal-fired May Plant that powered the textile factory where her own mother worked, Nikki is acutely aware of the need for strong air pollution controls to protect children and families from exposure to mercury and other toxic byproducts of burning coal. She traveled to DC to participate in the EPA hearing on the MATS proposal because she has seen firsthand the importance of strong national standards to reduce pollution, and because she wanted to speak up for communities of color living near power plants.

"Let me tell you a little bit about Camden, SC. It's one of those small, quaint towns where everyone knows everyone. It's a town where you might attend church with your coaches and teachers. It's a town where football and basketball on Fridays is the place to see everyone. It's also a town full of manufacturing plants and manufacturing employees.

"My mother was one of those employees. For 20 plus years, she served at Skyline and Wateree Textiles. The insurance was great and the pay was well above the norm for the small town of Camden where most people of color live below the poverty line. We were grateful; and blissfully unsuspecting. We didn't think twice when my mother gave birth to her only son; he was stillborn. We didn't think twice when my mother and sister developed fibroids, because, well, 'they are common in African-American women.' We didn't even think twice when my children started to have respiratory issues when there was no family history or other significant risk factors. My daughter, Kendra, started having symptoms around 3 months of age. By the time she was a toddler, she was diagnosed with asthma. My son Xavier has had respiratory issues from infancy and even as an adult, he still struggles to get a handle on them.

"We didn't link any of that to the fact that my mother's job was powered by May Plant, a coal-fired power plant just off the Wateree River. She breathed in those toxins daily and brought home the residue on her clothes, in her hair and even in her car. We were exposed to these chemicals….

"MATS is one of several pollution standards that have helped clean up the environment in my community. We need national standards to protect us from pollution so that May Plant and other industrial facilities stop harming our babies.

"MATS has protected mothers, mothers to be, babies and workers. It has protected the vulnerable population that thrives on manufacturing employment and fishing to provide for their families. It helped make sitting at those football games more bearable because we were at ease about the air we were taking in.

"As a member of the quaint, intimate town of Camden, I have seen firsthand the value of national standards that keep pollution out of our air, water, and soil. That's why it is of utmost importance to keep the MATS protections strong. Our communities deserve that right; my mother deserved that right. My children deserved that right."

IN ADDITION TO OPPOSITION FROM MOMS AND KIDS, A BROAD, DIVERSE COALITION OPPOSES EPA'S PROPOSAL TO UNRAVEL THE MERCURY AND AIR TOXICS STANDARDS

Over 350,000 comments have been submitted to EPA in response to their proposal to undermine MATS. Individuals and organizations representing broad, diverse constituencies including mothers, medical professionals, health groups, the NAACP, the utility sector, scientists, labor, tribes, faith groups, environmental groups, states, anglers, pollution control technology providers, and more have weighed in to support leaving the standards in place and to express concerns over EPA's proposal. Excerpts from some of the comments EPA has received are below.

"Our organizations represent health and medical professionals who treat patients and work in communities impacted by lung, cardiovascular, and neurological impairments, and we are therefore keenly aware of the harmful health effects of air pollution. Research has shown that these toxics are especially dangerous because of the harm they can cause to the respiratory, cardiovascular, nervous, endocrine, and other essential life systems within humans. Toxic emissions can even cause developmental disorders and premature death… "Preventing 11,000 premature deaths meets the essential, explicit responsibility the Clean Air Act gave EPA in Section 112. Millions of Americans, including our patients and our communities, face special risk should EPA decide that this narrowed approach is acceptable. Their age, health conditions, or rate of exposure to these pollutants make them more vulnerable, and consequently, make these measures even more "appropriate and necessary." They include infants, children and teenagers; older adults; pregnant women; people with asthma and other lung diseases; people with cardiovascular diseases; diabetics; people with low incomes; and people who work or exercise outdoors." Comments from 16 health and medical associations [21]

"Given this investment [by the power industry to meet the standards] and industry's full implementation of MATS, regulatory and business certainty regarding regulation under Clean Air Act (CAA) section 112 is critical—we urge that EPA leave the underlying MATS rule in place and effective…EPA should take no action that would jeopardize these investments or the underlying rule. Should EPA take any action that could result in the rescission of the underlying MATS rule, despite the above request, EPA should consider the impacts such an action would have on these costs already borne by industry and how the

[21] Signatories include the Alliance of Nurses for Healthy Environment, American Lung Association, March of Dimes, the National Association of County and City Health Officials, and the National Medical Association.

recovery of these sunk costs could be put in jeopardy…" Letter signed by Edison Electric Institute, National Rural Electric Cooperative Association, International Brotherhood of Electric Workers, etc.

"Today, regulated power plants are in full compliance with the standards, achieving a ninety-six percent reduction in power-plant hazardous air pollution emissions—including an eighty-six percent reduction in power-plant mercury emissions. Those reductions have generated, and continue to generate, significant public health, environmental, and economic benefits for the States and Local Governments—and at a fraction of the predicted cost. Because power-plant mercury emissions traverse state borders, the national mercury emission limits provided by the MATS Rule are a critical buttress to state-level mercury emission control regimes." Comments on behalf of 21 states and 6 counties and cities

"In 1990, Congress listed mercury – along with one hundred and eighty-eight other air toxics such as lead and arsenic – as hazardous air pollutants in the Clean Air Act. We believe the Environmental Protection Agency (EPA) correctly implemented Congress' original intent when the agency issued the MATS rule in 2012. Modeling MATS on state actions that were already underway to address these pollutants, EPA issued standards that were achievable for industry and beneficial for public health and the environment. EPA also provided enough time for industry to comply with the new standards. Thus, EPA struck the right balance between protecting the environment, public health and our economy. For these reasons and more, we strongly supported the MATS rule when it was finalized and still support the rule today." Senators Alexander(R-TN) and Carper (D-DE)

"ICAC is confident that the EGU's emission limits for existing units for total particulate matter (PM), hydrogen chloride (HCI) and mercury (Hg) are being met reliably and economically... We believe that the MATS emission limits should be retained for existing units." Institute of Clean Air Companies

"Since EPA completed the MATS Regulatory Impact Analysis ("RIA") in 2011, the scientific literature has developed significant new evidence demonstrating the benefits of regulating power plant mercury emissions…In addition, it is now clear that reductions in mercury emissions from power plants result in localized and regional reductions in atmospheric mercury deposition, which amplifies the benefits of decreasing domestic emissions." Emmett Environmental Law & Policy Clinic, Harvard Law School[22]

"Exelon actively supported the Mercury and Air Toxics Standards, and the underlying "appropriate and necessary" finding, in the U.S. Court of Appeals for the District of Columbia Circuit and before the U.S. Supreme Court. There is no basis to repeal these important and long-overdue protections." Exelon Corporation

"Nationwide, over 200 federally recognized tribes have reservation lands within 50 miles of an EGU. While mercury is a major concern for these tribes, emissions of other highly toxic substances are also present, including carcinogens, acid gases, arsenic, nickel, and

[22] Signatories include "scientists from the fields of atmospheric transport, ecosystem fate and effects, bioaccumulation, human exposures, and health outcomes associated with environmental mercury contamination."

lead…Moreover, mercury deposition threatens more than the physical and economic well-being of tribal members, it also threatens the tribe's culture and spiritual wellbeing. Specifically, the people of Fond du Lac are essentially people from a water based culture, this is demonstrated by the fact that where we live and how we live centers on water and associated resources. Natural resources and culture are greatly intertwined, so when natural resources are contaminated or lost, likewise are the associated cultural practices. The most obvious example of this would be the growing reluctance by many tribal members to eat fish frequently. Fish was a major component of Anishinaabe diet until the last several decades. There are several reasons for the decline in consumption of fish, but the fact that a majority of the water bodies in Minnesota are impaired by mercury makes it even more difficult to encourage consumption of fish to tribal members." Fond du Lac Band of Lake Superior Chippewa

"The health benefits of the standards are enormous – they prevent up to 11,000 deaths, along with 130,000 asthma attacks among children, and 4,700 heart attacks every year. The standards reduce some of the most hazardous air pollutants emitted by power plants, including pollutants known to cause cancer, or birth or reproductive impacts, respiratory impacts, impaired brain development in children and other harms to human health." Letter signed by over 30 groups[23]

"Mercury emissions harm Indian health disproportionately because many American Indians rely much more heavily on locally caught fish for their daily sustenance than does the general public. EPA has determined that many American Indians' "average exposures to methylmercury may be more than two-times greater than those experienced by the average population." Mercury Study Report, Vol. 4 at 7-2; id. at Vol. 7 at 2-2 ("[S]ome Native American populations report fish consumption rates far in excess of the general population."). Indeed, for many tribes, fish consumption rates are so high that EPA's estimate of two-times greater exposure may be a gross underestimate. "Some indigenous subpopulations eat 4 to 5 times the amount of fish assumed in EPA models that determined fish consumption advisories." National Congress of American Indians et. al

INDUSTRY WILL AND HAS IN THE PAST TURNED OFF POLLUTION CONTROLS

EPA's proposal, if finalized, could undermine the legal basis of the Mercury and Air Toxics Standards even if EPA purports to find regulation "not appropriate" but leaves the MATS controls in place. Through the dangerous and false assertion that regulating harmful neurotoxins and carcinogens is neither appropriate or necessary, the proposal could open the door for legal challenges that would attempt to vacate the MATS rule in its entirety.[24] And that presents a grave

[23] Signatories include the NAACP, National Hispanic Medical Association, Chippewa Ottawa Resource Authority, Hispanic Federation, WE ACT for Environmental Justice, Alaska Community Action on Toxics, Moms Clean Air Force, Natural Resources Defense Council, Environmental Defense Fund, and the Evangelical Environmental Network.

[24] Murray Energy Corporation, which already has a pending challenge to MATS, D.C. Cir. No. 16-1127, has taken the position that EPA must repeal the MATS standards if the agency makes a "not appropriate" finding. Cody Nett, Assistant General Counsel for Murray Energy Corp., Public Hearing Comments on "Reconsideration of Supplemental Finding and Residual Risk and Technology Review for Coal- and Oil-Fired Utility Steam Generating Units" at 2 (Mar. 18, 2019),

threat to public health. In the absence of enforceable federal standards for harmful pollution, there is nothing to guarantee that the power industry would continue to operate pollution controls now limiting mercury and acid gases from power plants.

In the event this proposal is finalized, the risk of pollution controls for mercury and other toxics being throttled down or turned off is real. In a recent Integrated Resource Plan filing by the Northern Indiana Public Service Company LLC (NIPSCO), Peabody COALSALES provided comments on February 28, 2019 which demonstrate the risk that facilities may be compelled to reduce utilization of already-installed controls in order to reduce operating & maintenance costs and that this is being discussed as part of resource planning:

> Although NIPSCO understandably installed MATS compliance equipment initially, it is inappropriate for NIPSCO to continue assuming they will incur long-term MATS O&M costs for these electric power-generating units. There is a significant likelihood that EPA will withdraw MATS entirely or drastically alter the rule as to reduce the ongoing O&M cost burden. Therefore, NIPSCO's assumption to build these high O&M costs into its IRP is unreasonable. Additionally, NIPSCO's prudence should be questioned given its lack of support for EPA's current opportunity to withdraw MATS and eliminate the costs that EPA has concluded are unreasonable…
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> The EPA's current proposal regarding the MATS rule could be subject to legal challenge and force it to go through the de-listing process in § 112(c)(9). Some parties may argue that § 112 requires an "appropriate and necessary" finding before EGUs can be regulated. As a result, withdrawing the "appropriate and necessary" finding but leaving the MATS requirements in place could be found to violate the plain language of the statute, and the EPA may therefore lack the authority or the discretion to proceed with the rule as proposed.
>
> NIPSCO is relying in part on the costs of compliance with MATS as a reason for shuttering some of its EGUs. These costs of compliance are the costs found by the EPA to be unreasonable and unnecessary. Furthermore, these costs include both the cost of installing controls and ongoing operation and maintenance costs. Even where controls have been installed because of the MATS rule, these operation and maintenance costs could be avoided if, as seems likely, the EPA abandons the MATS requirements for EGUs, either in the final version of the 2018 Supplemental Finding or as a result of an adverse court decision.[25]

In the past, even after massive capital investments in pollution control equipment, power plants have turned off their pollution controls when enforceable pollution limits have not been in place. The industry would likely do the same if EPA repeals MATS. For example, under the Clear Air Interstate Rule (CAIR) program from 2010-2014, smog-causing emissions of nitrogen oxides (NOx) dramatically increased as compared to pre-CAIR levels from many coal-fired power plants in the

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Doc. ID No. EPA-HQ-OAR-2018-0794-0523 (arguing that EPA "must also take the only logical and defensible next step by rescinding MATS altogether").

[25] *See* Peabody's Comments on NIPSCO's 2018 Integrated Resource Plan at 13-14, https://www.in.gov/iurc/files/Peabody%20Public%20IRP%20Comments%20(4850-6099-4953).pdf

Eastern U.S. with advanced NOx controls—specifically selective catalytic reduction (SCR)—already installed.[26] This occurred where power plants lacked enforceable pollution limits and market forces—including low CAIR allowance prices, low natural gas prices, and lower electricity demand—incentivized emission increases.[27] More recently, under the Cross-State Air Pollution Rule program, the Ozone Transport Commission has observed that many coal-fired power plants with SCR installed have emitted NOx at significantly higher rates than their lowest observed emission rates in prior years. For example, during the 2018 ozone season, 17 of the 25 top NOx-emitting power plants impacting the Ozone Transport Region had SCR installed.[28] The top 2 emitters, the WH Zimmer Generating Station in Ohio and the Belews Creek Plant in North Carolina, emitted NOx at rates that were over 3 times and over 8 times their best observed rates from 2006 and 2007, respectively.[29] Therefore, it is critically important to maintain MATS to ensure that we continue to realize their profound benefits for human health and the environment.

PROTECTING AMERICA FROM MERCURY AND AIR TOXICS IS APPROPRIATE AND NECESSARY – AND A MORAL IMPERATIVE FOR OUR CHILDREN

The Proposal's Bottom-Line Finding Is Indefensible

EPA's position in the proposal is that it is not "appropriate" to regulate coal-burning power plants' massive emissions of mercury and other hazardous air pollutants that gravely harm human health and the environment.[30] Everything we know about these pollutants, and the overwhelming record before EPA, shows that controlling them is not just "appropriate," but *vital*. It is deeply problematic and a direct threat to our children's health that EPA now proposes to decide otherwise. Supporters of this irresponsible proposal should not be allowed to hide the central fact that the agency charged with protecting American's health and welfare from air pollution is claiming that control of largescale toxic emissions is not appropriate.

Contrary to EPA's False Claims, Health Benefits of HAP Reductions Are Enormous

Emissions of hazardous air pollutants ("HAPs") from electric generating units ("EGUs")—previously the United States' largest sources of HAPs including mercury, chromium, arsenic, nickel, selenium, hydrogen fluoride, hydrogen cyanide, and hydrogen chloride—have fallen by 96 percent since 2015, in large part due to the adoption of MATS.[31] EPA's claim that the HAPs reductions are of minor value (reflected by an estimate of merely $4-$6 million in annual benefits) is outright false. EPA uses that sum even though the agency has previously acknowledged that it represents only a

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[26] Thomas F. McNevin, *Recent increases in nitrogen oxide (NO_x) emissions from coal-fired electric generating units equipped with selective catalytic reduction*, 66 Journal of the Air & Waste Mgmt. Ass'n., 66, 74 (2016).
[27] *Id.*
[28] OTC/MANE-VU Joint Committees' Meeting, Stationary and Area Sources Committee Presentation at 4 (Apr. 11, 2019), https://otcair.org/upload/Documents/Meeting%20Materials/OTC_SAS_Presentation_Public_04112019.pdf.
[29] *Id.*
[30] *See* 42 U.S.C. § 7412(b)(2) (HAPs are chemicals that are "carcinogenic, mutagenic, teratogenic, neurotoxic," "cause reproductive dysfunction," or have "acutely or chronically toxic" or "adverse environmental effects").
[31] 84 Fed. Reg. at 2689 (Table 4); *see also* 77 Fed. Reg. at 9,310-11, 9,335.

tiny *subset of a subset* of the health benefits of controlling mercury emissions.[32] EPA ignores published studies showing that the monetized benefits of reducing mercury alone are orders of magnitude greater, and valued in the billions annually.[33] The dramatic reductions in pollution from the nation's largest sources that MATS provides are a huge benefit to public health, and have been systematically under-valued by the current proposal. This false representation of the scale of health benefits provided by MATS vastly undervalues the enormous health benefits that our children, our elders, and all Americans have experienced as a result of MATS implementation.

Power-Plant Air Toxics Emissions Disproportionately Harm Vulnerable Populations Including Minorities and Children

Emissions of mercury and other air toxics disproportionately harm vulnerable populations, including Native American tribes where fishing is a vital part of tribal culture and where tribal members traditionally consume fish at higher rates than the general population.[34] EPA also identified disproportionate risks of mercury exposure for other minorities, including African-Americans living below the poverty line in the southeast who rely on fish they catch for food.[35] In addition, EPA previously recognized that children and developing fetuses are especially vulnerable to health hazards from HAP emissions from power plants—risks that, except for IQ loss for children born to mothers who live in households that fish recreationally—remain unquantified by the agency. As EPA stated in the proposed MATS rule:

> Children are at greatest risk of adverse health effects from exposures to Hg [mercury], and this risk is amplified for children in minority and low income communities who subsist on locally-caught fish…. Even before birth, the developing fetus may be exposed to HAP through the mother that affect development and permanently harm the individual.[36]

As a result of the disproportionate harm to children and other vulnerable populations, and because these disproportionate burdens have not been addressed by EPA, the current proposal dangerously ignores Congress's special concern in Section 112 about protecting vulnerable and sensitive populations.[37]

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[32] 80 Fed. Reg. 75,025 75,040 (Dec. 1, 2015); 81 Fed. Reg. 24,420, 24,441 (Apr. 25, 2016).

[33] In a 2015 peer-reviewed study, Amanda Giang and Noelle Selin of the Massachusetts Institute of Technology found that compared to a scenario without additional mercury and air pollution controls, MATS was projected to yield (by 2050) cumulative lifetime benefits of $147 billion (2005 USD, discounted at 3%) for individuals affected, and cumulative economy-wide benefits (also by 2050) of $43 billion. A. Giang & N.E. Selin, *Benefits of mercury controls for the United States,* PNAS (2015).

[34] *See* 81 Fed. Reg. at 24,442.

[35] *See* MATS RIA at 7-40 through 7-44; Proposed MATS rule, 76 Fed. Reg. 24,976, 25,018 (May 3, 2011) (noting that "populations with high levels of self-caught fish consumption," including African-American communities, "are likely to be disproportionately affected" from exposure to mercury).

[36] 76 Fed. Reg. at 25,018.

[37] *See*, *e.g.*, Clean Air Act § 112(c)(9)(B)(i) (requiring consideration of cancer risk "most exposed" individual); § 112(n)(1)(C) (requiring consideration of mercury hazards from fish consumption "including consumption by sensitive populations").

Mercury Pollution Has Profoundly Impaired Waters Throughout the Country

As a result of methylmercury contamination, waters throughout the United States have been subject to mercury advisories warning all people, or those in sensitive groups (such as pregnant individuals), not to each fish caught in those waters.[38] In 2012-2013, in some states, all, or nearly all, waters were unsafe for fish consumption due to mercury contamination.[39] This widespread contamination created preventable exposure of women and children to a potent neurotoxin. It also diminished recreational opportunities, reduced property values, and prevented access to a ready and affordable source of nutritious food. Controlling power plants' toxic emissions is a critical step to clean up these waters.

EPA MUST STRENGTHEN OUR NATION'S LIMITS ON MERCURY AND OTHER TOXIC POLLUTION FROM COAL PLANTS

As EPA notes in its proposal, coal- and oil-fired electric generating units still emit over 5,000 tons of hazardous air pollutants each year. EPA also found that 636,000 people are at increased risk of cancer at or exceeding a one-in-one million level, based on allowable emissions under the Mercury and Air Toxics Standards. Rather than revisiting these life-saving standards, EPA should be strengthening them to reduce hazardous air pollutants further from these sources, to better protect the health of children, families, and communities living near these facilities and downwind from them. That EPA is going in the opposite direction, and proposing to undermine vital safeguards already on the books, is unconscionable.

[38] *See* 65 Fed. Reg. 79,825, 79,827 (Dec. 20, 2000); U.S. EPA, 2011 National Listing of Fish Advisories, EPA-820-F-13-058 (2013), https://19january2017snapshot.epa.gov/sites/production/files/2015-06/documents/technical-factsheet-2011.pdf.

[39] *See* Brief for State and Local Govt. Respondents at 8 & n.7, *Michigan v. EPA*, 135 S. Ct. 2699 (2015) (No. 14-46).