Written Testimony

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Thank you, Madam Chair and Members of the Subcommittee, for the opportunity to testify today. My name is Janet McCabe and I am a Professor at the Indiana University McKinney School of Law and Senior Law Fellow at the Environmental Law and Policy Center. I spent nearly eight years in the U. S. Environmental Protection Agency's (EPA) Office of Air and Radiation, first as the Principal Deputy Assistant Administrator and then as the Acting Assistant Administrator. Before that, I spent two decades working in state government on air quality and other environmental issues, at the Indiana Department of Environmental Management and before that at several agencies in Massachusetts. While at EPA I worked on a wide range of Clean Air Act programs and, in particular, on the development of the Mercury and Air Toxics Standards, the subject of this hearing. I am grateful to be able to present testimony here today, as MATS is one of the great success stories of air pollution reduction and public health protection, and EPA's recent proposal is of significant concern for a number of reasons. I am here today representing myself, and not on behalf of Indiana University.

The dangers of mercury to human health and where it comes from

Mercury is one of the most toxic substances on earth. When inhaled or ingested by humans, mercury can cause severe neurological damage, cardiovascular harm, endocrine disruption, kidney damage and muscle coordination issues.[i] When pregnant women are exposed, their babies can suffer IQ and motor skills impairments that will last their lifetime.[ii] Through rain, snow, or dry deposition, mercury can deposit either directly into waterbodies or indirectly into waterbodies via groundwater seepage through plants and soil.[iii] Mercury is emitted by sources around the world; some of it travels long distances around the globe, while

other sources deposit relatively close to where it has been emitted. Once in water, mercury chemically transforms into methylmercury, which is readily taken up first by plant and then by animal life and moves up the food chain to ultimately be consumed by people. People are primarily exposed to mercury through the consumption of freshwater or marine fish, either self-caught or, more commonly, purchased at the grocery store or a restaurant.

There have been mercury poisoning events of devastating proportion, including in Minamata, Japan where in 1956 a chemical plant released massive amounts of wastes containing mercury into Minamata Bay, ultimately killing 900 people and injuring more than two thousand.[iv] Later, in 1971, seed grain treated with a methylmercury fungicide was mistakenly consumed by people in rural Iraq.[v] Hundreds, perhaps thousands, of people died or were seriously sickened as a result. These were extreme events, but they highlight the point that a very small amount of mercury can cause significant contamination. According to the Minnesota Pollution Control Agency, "approximately one gram of mercury enters a 20-acre lake each year. Over time, just this small amount can contaminate the fish in that lake, making them unfit to eat on a regular basis." [vi]

Anthropogenic sources of mercury include fossil-fuel burning, gold mining, municipal and medical waste incinerators, and cement and brick production. Until three years ago, when the EPA's Mercury and Air Toxics Standards (MATS) for power plants went into full compliance, the burning of coal and oil in power plants had been the most significant source of industrial mercury emissions in the United States because other US industrial sectors had already been subject to Clean Air Act rules that limited their emissions. [vii] MATS put in place similar reduction requirements for power plants. In December 2018, however, the EPA issued a proposal that could prove to be a first step in unraveling MATS. [viii]

How CAA Section 112 works generally and for Power Plants specifically

MATS has deep regulatory roots, and the final rule signed in 2011 was the result of many years of effort. In 1970, Congress passed the Clean Air Act,[ix] the aim of which was to protect Americans' health and our environment from the adverse impacts of air pollution. Congress directed the EPA to identify pollutants that posed the most risk and to develop

regulations to reduce that risk. The original risk- and exposure-based approach proved extremely difficult for the EPA to implement. In 1990, Congress changed the approach to one that required the EPA to set technology-based standards for the most significant sources of 189 air toxics Congress listed in the Clean Air Act, based on what the best performers in each sector were achieving.[x] With tight technology-based standards for sources and follow-up risk and technology reviews, the program would assure continued reductions of air toxics emissions. Because coal-fired power plants were already regulated through other Clean Air Act programs, such as the Acid Rain program, Congress required several additional studies related to mercury in Section 112(n). In particular, Congress gave the EPA the extra step of evaluating whether existing programs were sufficient to reduce mercury emissions or whether, in the parlance of the Act, it was still "appropriate and necessary" to develop an air toxics rule for these sources.

The Road to MATS

The path of mercury regulation at the EPA was a long and winding one. After making a positive Appropriate and Necessary (A&N) Finding in 2000, the EPA reversed that Finding in 2005, took coal-fired power plants off the list of sources to be regulated for mercury, and issued the Clean Air Mercury Rule[xi] (CAMR), which switched to a national mercury cap and trade program. In 2008, the DC Circuit Court of Appeals overturned CAMR,[xii] so when the Obama Administration arrived in 2009, moving this issue forward was one of EPA Administrator Jackson's highest priorities. Without CAMR, and with the other industries that emitted significant amounts of mercury already subject to regulation, coal-fired power plants were the cheese standing alone, responsible for nearly half of US mercury emissions.

In 2011, Administrator Jackson signed the Mercury and Air Toxics Standards.[xiii] The rule itself was accompanied by a new A&N Finding and an analysis of the costs and benefits of the rule. The agency worked extensively with the power sector, other federal agencies such as the Department of Energy and the Federal Energy Regulatory Commission, and every other conceivable stakeholder or affected group or entity to develop the rule. The agency received more than 900,000 public comments on the proposal. These comments enabled EPA to improve the analysis and the cost and benefits projections, and allowed the agency to make

changes to the proposal that were legitimately desired by industry and did not compromise public health protection or adherence to the legal requirements of Section 112. For example, the final rule provided a longer averaging time for determining compliance; it provided more flexible monitoring and reporting provisions (which saves sources money); it changed emissions limits and indicators as warranted to make them more in-line with what the real world data supported; and it assured the maximum time would be available for sources to comply. The rule reduces emissions of mercury and of other toxic air pollutants such as arsenic, chromium, nickel, and acid gases.

Using the best information available at that time, the EPA projected that the rule would cost industry $9.8 billion annually, and generate $37-90 billion in benefits through improved public health.[xiv] These are big numbers, but the control technologies the EPA expected utilities would use to control mercury —particularly scrubbers[xv] — would also reduce other harmful air pollutants, including fine particles, sulfur dioxide and nitrogen oxides. The health effects of these pollutants are well-studied and costly; reducing these pollutants has been demonstrated to save lives. I will address the issue of "co-benefits" later in this testimony.

As with all modern EPA rules, the next stop was the courthouse. In the first level of review, the DC Circuit Court of Appeals fully upheld MATS.[xvi] The US Supreme Court agreed, with one exception: it held that the EPA should have considered cost as part of the A&N Finding, and it directed the EPA to do so, leaving the rule in place in the meantime. The Court stated that the law did not require the EPA to conduct a "formal cost-benefit analysis in which each advantage and disadvantage is assigned a monetary value. It will be up to the Agency to decide (as always, within the limits of reasonable interpretation) how to account for cost."[xvii] The EPA moved forward to propose and finalize a Supplemental A&N Finding,[xviii] again concluding that MATS was appropriate and necessary, using several approaches to evaluate the costs and the impact those costs would have on the utility industry and consumers.

MATS has been a regulatory and public health success

In the meantime, the industry went about the business of complying with the rule.

Plants had three, four, or in a very few cases five, years to come into compliance. In a letter to the EPA on July 10, 2018, the Edison Electric Institute, the American Public Power Association, the National Rural Electric Cooperative Association, the International Brotherhood of Electrical Workers and several other organizations, advised[xix] that "all covered plants have implemented the regulation and that pollution controls—where needed—are installed and operating." This fact in itself is remarkable. Compliance with environmental rules varies widely across industries and requirements, but timely 100% compliance is rare.

Reconsidering the EPA's appropriate and necessary finding for MATS was high on the incoming Trump Administration's to do list. Stakeholders were anticipating a proposal long before it arrived on December 28, 2018, and groups made their views known through meetings with Administration officials, letters, and other forms of advocacy. Most of the comments urged EPA not to change the appropriate and necessary finding or the provisions of MATS. Indeed, notably, the electric utility industry itself reported to the EPA that it had spent $18 billion *in total* to comply with MATS and that facilities were in compliance, and asked that the EPA "allow the industry to continue full implementation of MATS."

EPA Chooses to Paint Itself Into a Corner

So, what has the EPA proposed? And, if utilities are already in compliance, why does it matter? The proposal takes the A&N Finding head-on and, despite EPA's public statements that it is not rescinding the standards themselves, is clearly the first step to doing so and will set the stage for arguments – either by EPA or other parties – that rescission of the emissions standards themselves is legally required.

What does the proposal do? In the proposal,[xx] the EPA has looked yet again at the information it considered in 2011 and then again in 2015, and now proposes to come out the other way. This is because, EPA now asserts, the costs outweigh the benefits. The proposal does not propose to rescind the standards themselves, though it invites comment on that option.[xxi] It argues that EPA's Supplemental Finding in 2016 incorrectly relied on the full range of public health benefits expected from implementation of MATS, including what are called "co-benefits," and did not adequately consider the costs in relation to the benefits.

The proposal is based on one thing and one thing only. EPA is not looking at any different or updated information. It is not reconsidering the reasonableness of the standards, or the recent history of compliance and costs incurred by the industry. Rather, EPA is going back in time and deciding to take a radically different approach to how it considered costs and benefits in the rule. This approach drastically discounts the public health benefits side of the balance sheet, departing from years of practice and from current OMB guidance. EPA presents this almost as if it has no choice. To the contrary, as I will discuss in more detail below, the agency is choosing to paint itself into this corner. And their choice has implications not just for this rule but for every rule it promulgates going forward. This is a result EPA leadership has made clear it desires. Let me explain these points a little more.

First, despite EPA's protestations that it is not proposing to rescind MATS, a rescission of the A&N Finding, if finalized, will absolutely create the legal predicate for the agency to do so and/or for outside parties to petition EPA to do so and sue them if they do not. Indeed, EPA seeks comment on several possible interpretations that would give it the discretion, or even the obligation, to rescind the MATS standards themselves.[xxii] At least some in the industry believe that this is the first step in repeal of MATS. For example, in a comment filed with the Indiana Utility Regulatory Commission on February 28, 2019, Peabody COALSALES, LLC argued that Northern Indiana Public Service Company (NIPSCO) was overestimating the future costs of compliance with MATS:

> Although NIPSCO understandably installed MATS compliance equipment initially, it is inappropriate for NIPSCO to continue assuming they will incur long-term MATS O&M [operating and maintenance] 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….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.[xxiii]

Second, the EPA proposes to reverse itself on the strength of a single highly significant policy change: the agency now proposes to find that it is inappropriate to consider equally the

health and other benefits associated with any pollution reductions other than mercury and the other air toxics specifically targeted by MATS. This is really the crux of the proposal. Once EPA has separated and discounted those non-Hazardous Air Pollutant (HAP) benefits, the comparison of HAP-only benefits compares less favorably to the costs of the rule, as they were estimated in the 2011 Regulatory Impact Assessment.

There are several significant problems with this approach. It ignores Guidance from the Office of Management and Budget that agencies are to consider both direct and indirect benefits of rules,[xxiv] and years of agency practice that valued the full extent of public health benefits in EPA rulemaking. It also ignores cause-and-effect realities. It also favors costs over benefits, as the agency makes no effort to exclude indirect costs from the calculation. If you quit smoking to reduce your chances of getting lung cancer, you will also necessarily reduce your risk (and the risk of others around you) of other significant health impacts. Is it really good policy to discount or even ignore those kinds of facts when considering how the costs of quitting smoking measure up to the benefits?

This approach also distorts cost-benefit analysis in ways that reasonable businesses would not do. Savvy businesses try to achieve multiple benefits when installing new equipment or implementing programs. A non-environmental example would be company wellness programs, which improve employees' health while also holding down insurance costs. The utility industry is expert at this: one pollution control technology often accomplishes multiple purposes and helps with their compliance beyond the specific rule that drives the initial investment. Utilities strategically analyze a cost-effective combination of scrubbers, catalytic controls and other approaches to maximize efficiency in reducing sulfur dioxide, nitrogen oxides, mercury, particulates and other pollutants from coal plants. Achieving multiple benefits is sound business practice and common sense.

Another significant flaw in EPA's approach is the fact that it is basing its revised analysis on a record that is demonstrably out of date. On both the costs and the benefits sides of the ledger, there is updated information showing that the costs have been lower than EPA predicted and the benefits will be higher. If EPA is going to proactively take such a substantial tack on its methodological approach on a rule that is so significant to this country, to willfully

ignore the facts on the ground turns this into an academic exercise. Rulemaking under the Clean Air Act is not academic. Rules under the Clean Air Act affect disease, illness, and injury for people all across this country.

Are there other concerns with the proposal? Indeed there are. With this proposal, the EPA has injected uncertainty into a regulatory landscape where certainty is prized by regulated industry. In this case, the regulated industry has already complied and is seeking to recover its costs through rate cases or has already done so. If the EPA reverses the A&N Finding, it will kick the legal legs out from under the standards themselves, leaving them vulnerable to an administrative petition or lawsuit by a third-party seeking rescission or vacatur of the entire rule. If the requirements go away, utilities may not be able to recover the costs they have already expended, or, even if that happens, they may decide to operate their controls less, if at all, to save operating costs.

If EPA finalizes this rule on this basis, it will be a highly significant policy step with ramifications far beyond the MATS rule. If EPA finalizes a rule that minimizes or eliminates altogether consideration of co-benefits on the health benefits side of the balance sheet, we can reasonably expect to see this approach in every EPA rule going forward. Why would we not? There is nothing in EPA's reasoning that would limit this to MATS. Indeed, on June 13, 2018, EPA issued an Advance Notice of Proposed Rulemaking that addressed this same issue.[xxv] This proposal takes a huge step towards valuing costs to industry far more than improvements to public health.

Let me conclude by observing that mercury emissions from US coal plants have gone down 85% between 2006 and 2016, and mercury levels in water and fish have also decreased.[xxvi] These reductions are hugely important, particularly in my region of the country, where the Great Lakes provide drinking water, jobs, food, and recreation to millions. That sounds like a successful program to me. This is in the rearview mirror for the utilities. It is a public health success. This proposal would be contrary to EPA's mission, which is to protect public health and the environment, and it should not be finalized.

Thank you very much for the opportunity to provide this input and I look forward to your questions.

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[i] https://www.atsdr.cdc.gov/PHS/PHS.asp?id=112&tid=24#bookmark05
[ii] http://environment.harvard.edu/news/general/mercury-matters-2018-science-brief-journalists-and-policymakers
[iii] https://www.sciencedaily.com/releases/2007/03/070321181643.htm
[iv] https://www.theregister.co.uk/2006/07/14/the_odd_body_minimata_disaster/
[v] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2366450/
[vi] https://www.pca.state.mn.us/quick-links/preventing-mercury-pollution
[vii] https://www.epa.gov/international-cooperation/mercury-emissions-global-context
[viii] https://www.jurist.org/news/2018/12/epa-announces-plan-to-ease-restrictions-on-power-plants/
[ix] https://www.law.cornell.edu/uscode/text/42/7401
[x] https://www.law.cornell.edu/uscode/text/42/7412
[xi] https://www.federalregister.gov/documents/2005/05/18/05-8447/standards-of-performance-for-new-and-existing-stationary-sources-electric-utility-steam-generating
[xii] https://scholar.google.com/scholar_case?case=19805856141752573 97&hl=en&as_sdt=6&as_vis=1&oi=scholarr
[xiii] https://www.govinfo.gov/content/pkg/FR-2012-02-16/pdf/2012-806.pdf
[xiv] https://www.epa.gov/sites/production/files/2015-11/documents/20111221matsimpactsfs.pdf
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[xvi] https://scholar.google.com/scholar_case?case=12809509887889779783&hl=en&as_sdt=6&as_vis=1&oi=scholarr
[xvii] https://supreme.justia.com/cases/federal/us/576/14-46/
[xviii] https://www.federalregister.gov/documents/2016/04/25/2016-09429/supplemental-finding-that-it-is-appropriate-and-necessary-to-regulate-hazardous-air-pollutants-from
[xix] http://src.bna.com/Ajk
[xx] https://www.epa.gov/mats/proposed-revised-supplemental-finding-and-results-residual-risk-and-technology-review
[xxi] The proposal also takes on the Residual Risk and Technology review required under **§112(f)(2)**, proposing to find that "residual risks due to emissions of air toxics from this source category are acceptable and that the current standards provide an ample margin of safety to protect public health" and that "[n]o new developments in… emissions reductions were identified under the technology review," thus concluding that no revisions to MATS are warranted. Many of the public comments address this aspect of the proposal, but I am not addressing that in this testimony.
[xxii] 84 Fed. Reg. 2679, February 7, 2019.
[xxiii] https://www.in.gov/iurc/files/Peabody%20Public%20IRP%20Comments%20(4850-6099-4953).pdf, p. 11.
[xxiv] https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/circulars/A4/a-4.pdf
[xxv] 83 Fed. Reg. 27542.
[xxvi] http://environment.harvard.edu/news/general/mercury-matters-2018-science-brief-journalists-and-policymakers