



Working for
Wilderness

April 17, 2019

Attention Docket ID No. EPA-HQ-OAR-2018-0794
U.S. Environmental Protection Agency
EPA Docket Center (EPA/DC)
1200 Pennsylvania Avenue, NW
Mail Code 28221T
Washington DC, 20460
Via Email: a-and-r-Docket@epa.gov

RE: Docket ID No.: EPA-HQ-OAR-2018-0794

To Whom It May Concern:

On behalf of the Adirondack Mountain Club (ADK), thank you for the opportunity to comment on the Environmental Protection Agency's (EPA) Mercury Air Toxics Standards (MATS) Proposed Revised Supplemental Finding and RTR.

ADK is extremely concerned that the Proposed Revised Supplemental Finding and RTR for MATS will cause direct harm to human communities, aquatic life, and forest ecosystems in the Adirondacks and Catskills and other wild lands and waters throughout the Northeast. The changes proposed by EPA will have a direct impact on the quality of life of our 30,000 members and the wildlands that we work to protect.

Adirondack Mountain Club

ADK is the only nonprofit organization dedicated to protecting and advocating for New York State's wild lands and waters while also teaching people how to enjoy natural places responsibly. Since 1922, the organization has offered people opportunities to stay and play in as well as protect, discover, and explore the outdoors. Today, ADK has 30,000 members in 27 chapters statewide and is served by a professional, year-round staff. The organization is recognized as a vital voice in the commitment to environmental stewardship and ethical outdoor recreation in New York State. ADK members hike, camp, snowshoe, cross-country ski, paddle, and cycle the lands and waters of the Adirondack Park and other state lands. Our members are also monitors and maintainers of trails and recreation infrastructure as well as watchdogs of public lands and watersheds to monitor for invasive species or irresponsible and destructive motorized trespass.

We respectfully request that you consider the following concerns and comments outlined below.

Mercury is a Direct Threat to Human and Ecosystem Health

Mercury from coal- and oil-fired power plants can be harmful to human populations, sensitive forest ecosystems, and aquatic life in lakes, ponds, and streams. Reduction of mercury emissions is critical to protecting water quality in the Adirondacks, Catskills, and across New York State. Mercury causes numerous potential health problems, including neurological disorders, cardiovascular harm, endocrine disruption, weakened immune systems, and cognitive impairment. Especially vulnerable to exposure are fetuses and young children who suffer with devastating and life-long impacts on cognitive function, memory, language, attention, and visual and motor skills. Consumption of large amounts of fish creates a higher health risk, which may impact cultural communities such as indigenous peoples, subsistence and recreational anglers, or immigrant groups. Mercury is considered by the World Health Organization as one of the top ten chemicals or groups of chemicals of major public health concern.¹

In the environment, mercury makes its way into waterbodies where it is converted by bacteria into a toxin, methylmercury (MeHg), which bioaccumulates in the food chain. Methylmercury is the most toxic form of mercury, and it does not degrade or disappear like other persistent organic pollutants. Methylmercury also biomagnifies. Smallmouth bass and common loons can reach MeHg levels one hundred times greater than that found in insects. Otters and mink can have levels of mercury that affect their reproductive success. Human and wildlife exposure to mercury is largely from consuming contaminated fish. Mercury is also accumulating in songbirds living in mountain environments, like Bicknell's thrush and neotropical songbirds.

Regulating Mercury and Other Toxic Emissions from Power Plants is “Appropriate and Necessary”

EPA is proposing to reverse an existing finding that it is “appropriate and necessary” to regulate the emissions of mercury and other toxic air pollutants from coal- fired power plants. The “appropriate and necessary” finding is the basis for the 2012 Mercury and Air Toxics Standards (MATS), a critically important regulation that requires coal plants to reduce toxic emissions. Although EPA claims it only intends to reverse this finding, not MATS itself, ADK believes that this action threatens the MATS regulation by attacking the foundation for the regulation.²

In 2000, EPA determined that it was “appropriate and necessary” to regulate nearly two hundred air toxics from power plant emissions, which resulted in power plants being added to the source category list of Clean Air Act section 112. This determination was reversed in 2005 by EPA, but the courts vacated the reversal in 2008, which kept power plants in the section 112 source list. After more litigation, EPA proposed in 2011 the Mercury and Air Toxics Standards (MATS), which were finalized in 2012.

Despite a vast body of science showing that air toxics from coal plants cause severe damage to human health and ecosystems, EPA is proposing to reverse its prior finding. Air toxics from coal plants including mercury, hydrogen chloride, arsenic, chromium, cadmium, nickel, and others, can cause or contribute to neurological damage in developing fetuses, chronic respiratory diseases, various cancers.³

Despite the fact that the power sector has significantly reduced air toxics emissions through compliance with MATS and has provided major public health benefits at costs far lower than expected and without adverse effects on electric system reliability or the economy, the EPA is proposing this action which would reverse its prior finding. The EPA is proposing to greatly narrow how the agency evaluates the costs and benefits of public health protections,⁴ diminishing the types of public benefits that the agency is willing to consider. This proposal also sets a dangerous precedent for this short-sighted and flawed approach which could impact other rules and regulations intended to protect the air, water bodies and drinking water.⁵

ADK submits that EPA is:

- refusing to consider *all* benefits, especially co-benefits when evaluating the “worth” of the MATS rule;
- ignoring unquantified direct benefits of reducing air toxics such as protection of aquatic ecosystems;
- relying on outdated information and disregarding new information; and
- undermining the public health gains from MATS and potentially other public health protections.

ADK believes that its 30,000 members include the following who benefit from keeping the MATS rule in place; parents whose children may be exposed to toxic chemicals in the womb or after birth; people who eat freshwater and ocean fish; people who birdwatch, nature watch or

engage in recreational activities in aquatic ecosystems; and our members who want the EPA to take strong action to protect human health and the environment from mercury pollution from electric generating units (EGUs) that burn soft coal.

The proposed rule change claims there are not sufficient health benefits to justify the cost of regulating mercury emissions. The rule change asserts the health benefit value of regulating mercury is under \$10 million annually, whereas these benefits are currently valued at approximately \$90 billion.

The currently proposed decrease in the calculated value of health benefits would allow this administration's EPA to support the proposed finding that it is not "appropriate and necessary" to regulate hazardous air pollutant (HAP) emissions from coal- and oil-fired power plants. This would reverse section 112 Clean Air Act decisions made by the EPA in 2000 that were also later affirmed in 2012 and 2016.

The EPA first found regulation "appropriate and necessary" in 2000, and reaffirmed that finding in 2012, because:⁶

- extensive peer-reviewed science shows substantial public health risks from toxic air pollution;
- coal-fired plants were one of the largest sources of these pollutants before the EPA regulated them; and
- cost-effective technology was widely available,⁷ and already being used by some plants, to reduce this pollution.

With this finding, in 2012 the EPA also finally regulated mercury and other toxic pollution from coal-fired power plants by establishing pollution control requirements in the Mercury and Air Toxics Standards (MATS). By 2016, nearly all coal-fired power plants were in compliance with the standards.⁸

In 2016, the EPA found yet again that regulation of air toxics from power plants is "appropriate and necessary" after carefully taking the projected costs of such regulation into account in response to a court directive.

The EPA found:⁹

- the costs of complying with the rule were reasonable compared to power sector revenues, expenditures, and prices;
- the costs of compliance would not jeopardize the power sector's ability to provide reliable electricity at reasonable cost to consumers; and
- the monetized and unquantified health and ecosystem benefits of the rule

identified in the EPA's 2011 economic analysis of the rule far outweighed its projected compliance costs.

Without a basis in applicable law EPA is now proposing to reverse its repeated finding that the regulation is "appropriate and necessary" by changing how benefits and costs are considered when determining whether a regulation is "appropriate." The agency asserts that it must make "a direct comparison of costs and benefits" to assess whether the rule's benefits are worth the costs rather than finding that the costs are reasonable in and of themselves. EPA also asserts that costs should continue to be defined expansively, but benefits should now only include those that are directly attributable to reductions of the specific pollutant such as mercury "targeted" by the regulation; benefits from other pollutant reductions in PM 2.5 particulate matter, ozone, acid rain that are also caused by the regulation (so-called "co-benefits" or ancillary benefits) should not be considered.¹⁰

This approach is a stark departure from countless previous rulemakings by the EPA and other agencies, and long-standing regulatory analysis guidance issued by the government's Office of Management and Budget (OMB) and the agency itself.

The proposed rule change argues that many of the health benefits identified in the 2012 MATS rule, which limits mercury emissions from coal- and oil-fired power plants, are the result of an overall decrease in air pollution when industry adopted new technologies, not solely the result of a decrease in emissions of mercury. The administration wants to alter the way health benefits are calculated to set a precedent for future rule changes.

The reduction of mercury emissions by power plants complying with the MATS rule was estimated by the EPA in 2012 to prevent 11,000 premature deaths and over 100,000 asthma and heart attacks, 5,700 emergency room visits, and over 3 million days of restricted activity as a co-benefit each year.¹¹ Most of these quantifiable benefits result from reductions of fine particulate matter, which occur as a direct and simultaneous result of MATS compliance and the installation of pollution controls to limit air toxics. In practice, EPA with the proposed change would no longer find it relevant to consider, in its determination of whether a regulation is "worth" the costs, these significant annual reductions in impacts to human health. The estimated costs in 2011 were only \$9.6 billion annually. Now, EPA proposes to no longer find relevant human health benefits that are estimated to be as much as \$90 billion each year. Instead, EPA proposes to consider only a subset of benefits from reducing air toxics, most of

which are not quantifiable, so that EPA's new proposed estimate of health benefits is only \$4 to \$6 million annually.¹²

Human and Ecosystem Health Must Be Protected

In evaluating the “worth” of an action, the EPA is now proposing to only consider a narrow definition of benefits, focused only on the specific pollutants targeted by the regulation and ignoring the rest. The proposed approach is counter to established practice, going against long-standing guidance for economic analysis, including the OMB's Circular A-4,¹³ which states that:

- agencies “should look beyond the direct benefits and direct costs of your rulemaking and consider any important ancillary benefits and countervailing risks;”
- “analytic priority should be given to those ancillary benefits and countervailing risks that are important enough to potentially change the rank ordering of the main (regulatory) alternatives in the analysis;”and
- “the same standards of information and analysis quality that apply to direct benefits and costs should be applied to ancillary benefits and countervailing risks.”¹⁴

EPA's proposed approach, which focuses on a narrowly constrained cost-benefit analysis, is economically inefficient, devaluing rules that could achieve significant simultaneous reductions in different air pollutants, and depriving the public of increased health, environmental and ecosystem benefits from a single rule like MATS. EPA's tortured and illogical cost – benefit interpretation would substantially tip the scales in favor of the interests of the owners of polluting EGUs over the interests of the public and societal value of healthy ecosystems and environments.

Although new studies and information now available to the agency since MATS was issued suggest that health benefits of MATS are orders of magnitude higher than its 2011 estimate, EPA's proposed approach now ignores non-monetizable benefits. The great benefit of keeping mercury out of people's bodies from eating freshwater and ocean fish is considered by EPA unquantifiable and non-monetizable. Likewise, the environmental benefits of keeping methyl mercury out of healthy aquatic ecosystems and food chains of eagles, loons, otters and brook trout are considered unquantifiable and non-monetizable. Only by keeping these difficult to value monetarily, but great societal, health and ecosystem benefits from being considered “benefits” does the EPA conclude that eliminating mercury from EGU emissions is neither “necessary or appropriate.” Only by resorting to this tortured reduction of the definition of the

value of “benefits, can EPA propose to conclude that it is not “appropriate” to regulate mercury and air toxics from coal-fired power plants.

EPA needs to appropriately account for all benefits, quantifiable and non-quantifiable in rulemakings, including co-benefits, in keeping with economic and legal requirements on cost-benefit analysis. EPA’s proposed approach is illogical and unreasonable because the agency is comparing the financial cost of compliance, including the costs of particulate matter reductions—to the benefits of only mercury air pollution reductions, meaning benefits are substantially discounted compared to the assessment of cost technology improvements and the cost of running that air pollution reduction equipment. ADK observes that the revisions to cost-benefit analysis that the EPA is proposing here will have implications well beyond the boundaries of the MATS rule.

There are many harmful health effects of mercury and other air toxics, but not all of these effects are quantifiable or monetizable. At the time of its 2011 analysis, the EPA was only able to quantify a single effect for a single exposure pathway for a single toxic pollutant.¹⁵ Now, in the new proposal, EPA notes that there are some benefits of reducing air toxics that it was not able to quantify in 2011,¹⁶ “These effects include impacts of [mercury] on human health (including neurologic, cardiovascular, genotoxic, and immunotoxic effects), a variety of adverse health effects associated with exposure to certain non-[mercury air toxics] (including cancer, and chronic and acute health disorders that implicate multiple organ systems such as the lungs and kidneys), and effects on wildlife and ecosystems.”¹⁷ In the past, the agency acknowledged these unquantified effects, and emphasized that they would further contribute to its finding that benefits outweighed costs.

Now, the agency is suggesting the opposite. The agency, without any supporting evidence, “proposes to conclude that substantial and important unquantified benefits of MATS are not sufficient to overcome the significant difference between the monetized benefits and costs of this rule,”¹⁸ At the same time, EPA still claims that it “acknowledges the importance of these benefits” and “agrees that such benefits are relevant to any comparison of the benefits and costs of a regulation.”¹⁹ This is a flagrant violation of the case law underpinning EPA’s enactment of the MATS regulation in 2012 and 2016.²⁰

Whether reducing impacts to health can be financially quantified or not, scientific evidence shows that the health effects of air toxics pollution are real and significant. EPA’s conclusion that “the unquantified benefits ... are not sufficient to overcome the significant difference

between the monetized benefits and costs...”²¹ is an arbitrary and inappropriate conclusion. There is evidence of major public health harms from methylmercury exposure, such as from consuming contaminated fish, and the particular risks that vulnerable populations, such as developing fetuses and those with high fish intake are exposed to.

EPA Must Use Updated Data

In the EPA’s proposed reversal, the agency insists on using data from the 2011 regulatory impact analysis (RIA) supporting MATS as opposed to updating data to reflect significant new findings since that time.²² The EPA defends this action by suggesting that the agency should issue a new finding based on what it knew then, and not what it knows now.²³ It further justifies this decision by stating that even with new data, the outcome of its proposed finding “would likely stay the same.”²⁴

This position is legally unsupportable, agencies have an obligation to use the best available information in rulemaking—and especially so here, given new health impact findings, which include:

- new toxicological and exposure studies on mercury and air toxics, as well as new published peer-reviewed economic estimates of the monetized benefits of mercury controls, showing that the EPA underestimated benefits by assuming a threshold for the neurological effects of mercury, calculating no effects from exposures below a reference dose, and failing to account for background mercury exposures;²⁵
- new studies that now support quantification of mercury effects on cardiovascular health;²⁶ and
- a new study finding that the monetized benefits of reducing mercury under MATS are \$1.1 billion per year economy-wide (as opposed to the EPA’s limited estimate of \$4-\$6 million per year).²⁷

Incorporation of newly available information on public health impacts of air toxics and mercury, as well as the benefits of reducing these pollutants, will ensure the agency’s analysis is as accurate as possible and is likely to make a material difference in the EPA’s actions. EPA should use the latest costs of MATS compliance by EGUs.

The Electric Power Industry Supports the Use of MATS

Members of industry, health advocacy groups such as the American Lung Association, and environmental organizations have lobbied this administration's EPA to keep the rule in place. The electric power industry has already spent more than \$18 billion for compliance since the MATS rule became effective in 2012.²⁸ This compliance investment along with state requirements, and other Clean Air Act programs have reduced mercury emissions by 90 percent. "EPA should leave the underlying MATS rule in place and unchanged, and should not finalize any action that would undermine the existing MATS rule," Brian Reil, the Edison Electric Institute spokesperson, said. "Since the MATS rule took effect in 2012, electric companies have reduced mercury emissions by nearly 90 percent."²⁹

All power plants covered by MATS have already implemented the regulation and pollution controls have already been installed and are currently operating. Aging units that were retired due to a combination of factors including the MATS regulations, low natural gas prices, and resource planning initiatives, have already been decommissioned and cannot be reinstated. The industry has already invested significant capital in these improvements to the fleet. If this administration's EPA reverses the MATS regulation requirements it would introduce uncertainty in the electric power sector since the industry is currently under rate reviews for these resource improvements. In their comment letter to the EPA in response to this comment solicitation, the Edison Electric Institute (EEI), the American Public Power Association (APPA), and the National Rural Electric Cooperative Association (NRECA), the Clean Energy Group (CEG), the Class of '85 Regulatory Response Group, the International Brotherhood of Electrical Workers (IBEW), and the International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers, asked EPA to complete the statutorily mandated Residual Risk and Technology Review (RTR) for power plants as expeditiously as possible. "We believe a complete and robust RTR will recognize the capital investments already made for compliance and will allow the industry to continue full implementation of the MATS rule, which was completed in April 2016.... we urge EPA to move forward with an RTR for power plants under CAA section 112 and to leave the underlying MATS rule in place and effective," they said.³⁰

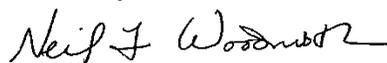
As power plants have complied with the MATS Rule by installing technology to reduce emissions of mercury, there has been a "co-benefit" of a reduction in particulate matter and nitrogen oxide, which are linked to asthma and lung disease. According to the electric power industry organizations listed above, the states are relying on the implemented MATS controls for their state air quality plans.³¹

Additionally, EPA's 2011 projections of costs were significantly overestimated. EPA referenced a study in the 2016 supplemental finding showing that the control technologies used by industry for MATS compliance were substantially less expensive and more effective than the EPA had projected.³² The study shows that the actual annual compliance costs are approximately \$2 billion per year, less than one-quarter of the EPA's 2011 projections.³³

ADK has a history of litigating EPA attempts to weaken mercury emission levels from coal-burning power plants in cases like *State of New Jersey v. U.S.E.P.A.*, where ADK was an intervenor setting forth the environmental harm caused by mercury and methylmercury to our Adirondack and state environments. We are closely evaluating whether our legal intervention will be necessary as the current administration pushes for regulatory changes that would weaken Clean Air Act provisions regulating mercury emissions by large soft coal-burning power plants.

Thank you for considering the above comments.

Sincerely,



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¹ <https://blog.ucsusa.org/kathleen-rest/mercury-is-toxic-andrew-wheelers-proposed-rollback-is-even-worse>

² <https://bit.ly/2ZdSpId>

³ <https://bit.ly/2ZdSpId>

⁴ <https://www.americanprogress.org/issues/green/reports/2018/12/18/464269/trumps-epa-poised-undo-progress-mercury-pollution-reduction/>

⁵ <https://bit.ly/2ZdSpId>

⁶ <https://bit.ly/2ZdSpId>

⁷ www.epa.gov/mats/cleaner-power-plants#controls

⁸ https://www.eenews.net/assets/2018/07/11/document_gw_04.pdf

⁹ <https://bit.ly/2ZdSpId>

¹⁰ <https://bit.ly/2ZdSpId>

¹¹ <https://blog.ucsusa.org/kathleen-rest/epa-mercury-rollback>

<https://blog.ucsusa.org/kathleen-rest/mercury-is-toxic-andrew-wheelers-proposed-rollback-is-even-worse>

¹² <https://bit.ly/2ZdSpId>

¹³ OMB 2003

¹⁴ OMB 2003

¹⁵ RIA, *ES-10 to ES-13*

¹⁶ <https://bit.ly/2ZdSpId>

¹⁷ 84 FR 2677

¹⁸ 84 FR 2678

¹⁹ 84 FR 2677-2678

²⁰ <https://bit.ly/2ZdSpId>

²¹ 84 FR 2678

²² <https://bit.ly/2ZdSpId>

²³ <https://bit.ly/2ZdSpId>

²⁴ 84 FR 2678

²⁵ Declaration of James E. Staudt, PH.D. CFA, Sept. 24, 2015, *White Stallion Energy Center, et. al., v. United States Environmental Protection Agency*, Case No. 12-1100 and consolidated cases (D.C. Cir.).

²⁶ See, e.g., Roman HA, Walsh TL, Coull BA, Dewailly É, Guallar E, Hattis D, Mariën K, Schwartz J, Stern AH, Virtanen JK, Rice G. [Evaluation of the cardiovascular effects of methylmercury exposures: current evidence supports development of a dose-response function for regulatory benefits analysis.](#) *Environmental Health Perspectives* 2011 May;119(5):607-14. doi: 10.1289/ehp.1003012. Epub 2011 Jan 10. Review.

²⁷ 81 Fed. Reg. at 24441 (citing Giang, Amanda, and Noelle E. Selin, 2016. “Benefits of Mercury Controls for the United States.” *Proceedings of the National Academy of Sciences* 113 (2): 286-291 (<https://www.pnas.org/content/113/2/286>)).

²⁸ https://www.eenews.net/assets/2018/07/11/document_gw_04.pdf

²⁹ https://www.washingtonpost.com/energy-environment/2018/12/28/epa-make-it-harder-tighten-mercury-rules-future/?noredirect=on&utm_term=.7d9d66e96f99

³⁰ https://www.eenews.net/assets/2018/07/11/document_gw_04.pdf

³¹ https://www.eenews.net/assets/2018/07/11/document_gw_04.pdf

³² <https://bit.ly/2ZdSpId>

³³ 81 FR 24432