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April 4, 2019

Andrew Wheeler
Administrator
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code 1101A
Washington, DC 20460
Docket ID No. EPA-HQ-OAR-2018-0794

Re: Connecticut DEEP Comments on Reconsideration of Supplemental Finding and Residual Risk and Technology Review for the Mercury and Air Toxics (MATS) Rule

Dear Administrator Wheeler:

In its *National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units – Reconsideration of Supplemental Finding and Residual Risk and Technology Review* (84 FR 2670; 7 February 2019; hereafter, the Reconsideration), EPA is proposing to reverse its own finding that it is “appropriate and necessary” to regulate emissions of mercury and toxic heavy metal particulate emissions from coal- and oil-fired electric utility steam generating units. The basis for this reversal is an unusual and deficient approach to the consideration of costs and benefits of the fully implemented Mercury and Air Toxics (MATS) Rule. The Connecticut Department of Energy & Environmental Protection (DEEP) considers the Reconsideration seriously flawed in its methods and result, both with regard to the MATS Rule and as precedent for future rulemakings.

On December 20, 2000, EPA determined pursuant to Clean Air Act (CAA) section 112(n)(1)(A) that it was appropriate and necessary to regulate hazardous air pollutant (HAP) emissions from coal- and oil-fired electric generating units (EGUs). Twelve years later, on February 16, 2012, EPA reaffirmed its position, with opposition from industry, and issued the MATS Rule, which required coal- and oil-fired EGUs to reduce emissions of mercury and other HAPs. Full compliance with the MATS Rule was required by 2015, and significant reductions in HAP levels have resulted. In response to the decision of the U.S. Supreme Court in *Michigan v. EPA*, 135 S.Ct. 2699 (2015), in 2016 EPA issued a supplemental finding to explain how it took cost into account in determining that it is appropriate and necessary to regulate HAP emissions from coal- and oil-fired EGUs, thereby retaining the foundation of the MATS Rule firmly in place.

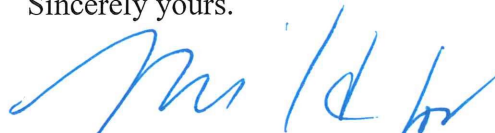
The analysis performed for the original MATS Rule was thorough and made according to accepted principles. The approach used in the Reconsideration fails to monetize benefits of the MATS Rule associated with reductions in heavy metal particulate HAPs, which contradicts the generally accepted approach that EPA originally used. The Reconsideration compounds this error by then limiting the benefits of the rule that may be included in the accounting and failing to incorporate information that has become available since the adoption of the original MATS Rule, including the actual cost to the electric generating industry to comply.

If implemented, the Reconsideration would invite further litigation challenging the MATS Rule's standards. If these standards were lost along with the health protections they provide, the loss would present significant harm to public and environmental health. However, the loss of the protections of the MATS standards is not the only threat that the Reconsideration presents. Rather the implicit affirmation of the approach used in determining costs and benefits of the rule is a larger threat from the promulgation of the Reconsideration. The overly limited concept of benefits used in the Reconsideration could prevent the adoption of future health protections that are necessary to be faithful to the protections of the CAA and EPA's duty to protect the health of the nation's citizens and environment.

In Connecticut, the MATS Rule applies to four operating facilities: PSEG Bridgeport Harbor Station, PSEG New Haven Harbor, NRG Middletown Power and NRG Montville Power Station, which have a combined capacity of about 2400 MW. The units at these facilities are required to comply with state emission limits for mercury, sulfur dioxide and nitrogen oxides that are more stringent than the national standards. The single coal-fired unit (at Bridgeport Harbor Station) is expected to retire by July 1, 2021. The economic considerations for these units, and many others throughout the country, are such that even if the MATS Rule is rolled back, utilization of the units is unlikely to increase. However, weakening the rule would allow those facilities the potential to emit more HAPs per unit of electricity generated and violate the public trust, because not all states have rules as stringent as those in Connecticut, and the transport of particulate matter and mercury from other states could occur in the absence of the MATS Rule. Of even greater concern are the legal and procedural implications for future rulemakings. DEEP's concerns with this rulemaking are set out in more detail in the attached sheets.

Today, Connecticut citizens are breathing cleaner air due to the MATS Rule, yet the air is still significantly impacted by the transport of some of the pollutants controlled by the MATS Rule. Continuation of the protections of the MATS Rule and, and, quite likely, additional such protections are necessary to continue to improve air quality, reduce human exposures from multiple ingestion pathways including water and fish, and deliver scientifically sound health protections to our citizens. We urge EPA to withdraw its proposed reversal of the "appropriate and necessary" finding so that the 2016 Supplemental Finding remains in place as a foundation for the MATS Rule.

Sincerely yours.



Katherine S. Dykes, Commissioner

DEEP Specific Concerns with the Reconsideration (Comments C-1 and C-2)

When EPA issued the supplemental appropriate and necessary finding in 2016, its preferred approach was not a cost-benefit analysis but a cost reasonableness test.¹ In the Reconsideration, EPA dismisses the cost reasonableness test. We strongly disagree with this dismissal.

EPA issued the 2016 Supplemental Finding in response to the U.S. Supreme Court decision in *Michigan v. EPA*, which held that EPA must consider cost in evaluating whether it is appropriate and necessary to regulate EGUs under CAA Section 112, and the comments EPA received on the proposed supplemental finding. In *Michigan v. EPA*, the Supreme Court did not provide instruction on the costs that were to be considered, nor did the Supreme Court question the scientific assessments and conclusions made to support the original appropriate and necessary finding. So, EPA chose to look at the reasonableness of the costs of compliance given the statutory objectives of CAA section 112, which was based on Congress' determination that HAP emissions were inherently harmful and sensitive populations should be protected. Cost was not considered a predominant or overriding factor in making the appropriate and necessary finding. The Administrator concluded that her task in issuing the 2016 Supplemental Finding was to determine whether a consideration of cost caused her to alter the prior conclusion made in issuing the MATS Rule that it was appropriate and necessary to regulate HAP emissions from EGUs under CAA Section 112. EPA considered cost in light of other factors relevant to determining whether regulation of HAP emissions from EGUs is appropriate and concluded that consideration of cost did not alter that determination.²

CAA Section 112(n) was enacted to provide EPA a means to set standards for HAP emissions from EGUs in the absence of other CAA provisions that are reducing HAPs from EGUs. EPA's approach in the Reconsideration to the appropriate and necessary finding under CAA Section 112 is flawed, threatening to undermine the health protections intended by CAA Section 112.

EPA fails to consider co-benefits.

In the 2016 Supplemental Finding, EPA included a cost-benefit analysis, although EPA did not consider that analysis to be required to support the finding. EPA found that the analysis demonstrated that "the benefits (monetized and non-monetized) of the rule are substantial and far outweigh the costs."³ In the Reconsideration, EPA reverses that finding because the majority of the monetized benefits were "co-benefits" from reductions in non-HAP emissions, namely filterable particulate matter (PM).

¹ Supplemental Finding that it is Appropriate and Necessary to Regulate Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units. 81 FR 2440 (25 April 2016).

² "Other relevant factors include the EPA's prior conclusions that HAP emissions from EGUs pose significant hazards to public health and the environment that will not be addressed through imposition of the other requirements of the CAA and that there are controls available to reduce HAP emissions from EGUs. The EPA must also consider its prior conclusion that EGUs are by far the largest remaining source of mercury, selenium, hydrogen chloride, and hydrogen fluoride emissions, and a major source of metallic HAP emissions including arsenic, chromium, nickel, and others, and that MATS will significantly reduce EGU emissions of many HAP." Proposed Supplemental Finding that it is Appropriate and Necessary to Regulate HAPs from EGUs. 80 FR 75038; December 1, 2015.

³ 2016 Supplemental Finding at 24421.

Inclusion of co-benefits is an acceptable and encouraged practice in cost-benefit analyses for rulemakings, according to the U.S. Office of Management and Budget guidance.⁴ Such an approach is particularly sensible for the MATS Rule since the control equipment used to limit metal HAPs regulated by the MATS Rule is particulate control equipment. Thus, PM reductions are a direct result of the use of control technologies for metal HAPs, which, in and of themselves are PM. EPA recognized this close relationship between PM and metal HAP control by using PM reductions as a surrogate for the benefits of reducing non-mercury metal HAP.

EPA also established sulfur dioxide (SO₂) as a surrogate for all acid gas HAP, for those sources that control SO₂ with a control device rather than through fuel switching, because the controls required to reduce acid gas HAP also reduce SO₂. The reduction in SO₂, in turn, has the effect of reducing secondary formation of PM. Thus, when sources comply with one of these surrogate standards, the reductions in PM and SO₂ can be considered direct benefits of the MATS Rule because those reductions include reductions in the targeted pollutants.⁵

It would be perverse to deny or ignore the total benefits that these standards achieve because the necessary controls coincidentally reduce more than just the targeted air pollution. The toxic metals controlled by the MATS Rule are PM pollution and the pollution control equipment needed to meet the MATS Standards also reduces emissions of additional PM pollution, which in total, is responsible for so many premature deaths, heart attacks and asthma attacks. Individually, the various toxic heavy metals captured in this control equipment are known carcinogens, powerful neurotoxins, and teratogens.

EPA disingenuously characterized the PM reductions and resulting health improvements as “co-benefits” when in fact these are direct benefits of the rule and as stated in the Regulatory Impact Analysis,⁶ PM is the most efficient surrogate to quantify the benefits of removing heavy metal HAPs.

EPA takes an overly narrow accounting of the benefits of limiting mercury and other HAP exposures.

The only health benefit of reducing mercury emissions that EPA could monetize – and was therefore accounted for in the Reconsideration – was IQ loss in children from pre-natal exposure to mercury due to maternal ingestion of self-caught freshwater fish.⁷ EPA does acknowledge some of the benefits of reducing air toxics that it was not able to quantify in 2011 – and therefore did not consider in the Reconsideration: “These effects include impacts of Hg on human health (including neurologic, cardiovascular, genotoxic and immunotoxic effects), a variety of adverse health effects associated with exposure to certain non-Hg HAP (including cancer, and chronic and acute health disorders that implicate multiple organ systems such as the lungs and kidneys),

⁴ U.S. Office of Management and Budget (OMB). Circular A-4. September 17, 2003.

⁵ Legal Memorandum Accompanying the Proposed Supplemental Finding that it is Appropriate and Necessary to Regulate Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units.

⁶ EPA. 2011. *Regulatory Impact Analysis for the Final Mercury and Air Toxics Standards*. EPA-425/R-11-011. Docket ID No. EPA-HQ-OAR-2009-0234-20131.

⁷ Reconsideration at 2677.

and effects on wildlife and ecosystems.”⁸ With this very narrow view of the benefits, EPA was easily able to conclude that the cost of compliance outweighed the monetized HAP benefits.⁹

The U.S. Office of Management and Budget’s (OMB’s) guidance on regulatory analyses¹⁰ supports consideration of benefits by both a benefit-cost analysis and a cost-effectiveness analysis whenever possible. The guidance goes on to suggest that even if “no quantified information on benefits, costs and rule effectiveness can be produced, the regulatory analysis should present a qualitative discussion of the issues and evidence.” In no instance does the OMB guidance suggest that an agency can ignore information, as EPA has done with the Reconsideration.

The 2011 Regulatory Impact Analysis does not quantify the benefits associated with reduced HAP exposures via exposure routes other than maternal ingestion of self-caught freshwater fish. Mercury emitted by EGUs can be transported over long distances. When it is deposited into waterbodies, it is converted to methylmercury, a highly toxic and persistent form of mercury that bioconcentrates in fish. Therefore, a large portion of the fish-eating U.S. population is exposed to mercury emitted by EGU facilities. Some exposure routes not monetized by EPA include ingestion of commercially purchased fresh and saltwater fish, ingestion of self-caught saltwater fish and ingestion of fish by children. EPA did not monetize the benefits for saltwater fish because of the difficulty determining the source of the methylmercury in the fish consumed. Nonetheless, this is a route of exposure for a large percent of the U.S. population and should be included in the analysis in some form, according to OMB’s guidance. Information linking declining mercury air releases in northern North America to reductions in the mercury levels in bluefish and Bluefin tuna are available, as cited in the comments submitted in this docket by the Northeast States for Coordinated Air Use Management.

Some of these non-monetized benefits are important to Connecticut. For instance, EPA fails to note the loss of recreational and cultural value for people living in coastal states, such as Connecticut, where shore fishing at coastal parks and fishing piers is a popular activity engaged in by entire families. Fishing and eating the fish caught is not just about protein gathering but part of the culture and heritage of many peoples. Such benefits, which would suffer if additional contamination further limits recreational fish consumption,¹¹ are just an example of the additional considerations that EPA did not even identify before ignoring in this Reconsideration.

EPA relies on outdated information and ignores new information.

EPA relies only on the information in the 2011 Regulatory Impact Analysis for the MATS Final Rule in preparing the Reconsideration.¹² However, EPA used the 2011 RIA in an even more

⁸ Reconsideration at 2677.

⁹ Reconsideration at 2677.

¹⁰ Office of Management and Budget. Circular A-4. September 17, 2003.

¹¹ Connecticut currently has freshwater and saltwater fish consumption advisories, despite mercury emissions limits for coal-fired EGUs that are more stringent than those of MATS. See CGS section 22a-199 which requires a mercury emission rate of 0.6 lb/TBtu or a 90% reduction.

¹² Compliance Cost, HAP Benefits, and Ancillary Co-Pollutant Benefits for “National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units – Reconsideration of Supplemental Finding and Residual Risk and Technology Review (Memorandum; 14 December 2018). See also Reconsideration at 2678: “. . . EPA believes it is reasonable for purposes of this Reconsideration to rely on the

limited manner by only using the target pollutant [i.e., HAP] impacts. In this way, EPA could find that “the quantifiable portion of the target HAP benefits are not even moderately commensurate with the compliance cost of the rule.”¹³ What EPA ignores first is that the capital costs of reducing the HAP and non-HAP emissions reduced by MATS compliance efforts have already been incurred. Reversing the appropriate and necessary finding – or even repealing the rule -- would not return those costs to the electric power industry.

Furthermore, the costs of MATS compliance have been far less expensive for the electric power industry than EPA anticipated. EPA’s 2016 determination of the reasonableness of the costs was indeed reasonable. An analysis prepared by Andover Technology Partners in 2015 concluded that the true cost of complying with MATS on an annualized basis was less than one-quarter of EPA’s original cost estimate.¹⁴

In addition to ignoring the actual, known costs of compliance with the MATS Rule, EPA ignores new scientific information concerning the benefits of the reductions in exposures to methylmercury associated with EGU emissions. The comments submitted by NESCAUM in this docket cite to several studies that monetize the social costs of methylmercury exposure and the savings associated with a reduction in exposure to methylmercury.

EPA concludes that even if it considered new information, the outcome of its finding “would likely stay the same.”¹⁵ However, given the limitations in EPA’s analysis, EPA’s conclusion is unsupported and irrational. EPA has an obligation to use the best available information in rulemaking. Lack of inclusion of available new credible information is not defensible.

The Reconsideration is a broad threat not only to MATS but to other future health protections.

The MATS Rule has dramatically reduced toxic and fine particle pollution. The actual annual air toxic emissions from coal- and oil-fired power plants were 96% lower in 2017 than in 2010, prior to implementation of the MATS Rule.¹⁶ EPA has provided no information on how losing the MATS Rule could affect emissions, yet the finalization of EPA’s proposal would invite litigation challenging the MATS standards. The result of such a challenge would mean that neither the protection of CAA Section 112 nor other portions of the CAA would be available for reducing EGU HAP emissions. EPA’s failure to analyze the pollution and public health effects of potentially losing the MATS Rule prevents meaningful comment on all aspects of the proposal and its impacts, which is in itself a dangerous precedent to allow to stand.

estimates projected prior to the rule’s taking effect, i.e., the estimates of costs and benefits calculated in the 2011 RIA.”

¹³ Memorandum; December 14, 2018 at page 1.

¹⁴ Andover Technology Partners, Review and Analysis of the Actual Costs of Complying with MATS in Comparison to Predicted in EPA’s Regulatory Impact Analysis, included as Exhibit 2 to Exhibit A of “Motion of Industry Respondent Intervenors to Govern Future Proceedings,” *White Stallion Energy Center, LLC v. EPA*, D.C. Cir. (filed September 24, 2015).

¹⁵ Reconsideration at 2678.

¹⁶ Reconsideration at 2689, Table 4.