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**COMMENTS OF THE AMERICAN PUBLIC POWER ASSOCIATION ON THE
NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS:
COAL- AND OIL-FIRED ELECTRIC UTILITY STEAM GENERATING UNITS-
RECONSIDERATION OF SUPPLEMENTAL FINDING AND RESIDUAL RISK AND
TECHNOLOGY REVIEW**

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I. Introduction

The American Public Power Association (APPA or Association) appreciates the opportunity to provide comments on the Environmental Protection Agency's (EPA or Agency) proposed rule entitled, "National Emissions Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units- Reconsideration of Supplemental Finding and Residual Risk and Technology Review." (Proposed Rule or Reconsideration Rule).¹

The Association supports EPA's decision to retain its existing Clean Air Act (CAA or Act) section 112(d) regulations for coal- and oil-fired electric generating units (EGUs) and the Agency's proposed risk and technology review (RTR) findings. The Association urges the Agency to finalize the RTR as quickly as possible to provide the electric utility sector certainty with respect to the investments our customers have made to comply with requirements of the Act by significantly reducing emissions of hazardous air pollutants. We believe any action that places these investments in jeopardy could be disruptive to public power utilities and to our members' obligations to serve their communities by providing safe, reliable, affordable, and environmentally sustainable power.

The American Public Power Association is the voice of not-for-profit, community-owned utilities that power 2,000 towns and cities nationwide. We represent public power before the federal government to protect the interests of the more than 49 million people that public power utilities serve, and the 93,000 people they employ. Our association advocates and advises on electricity policy, technology, trends, training, and operations. Our members strengthen their communities by providing superior service, engaging citizens, and instilling pride in community-

¹ 84 Fed. Reg. 2670 (February 7, 2019).

owned power. The Association and its members have a long history of participating in regulatory matters concerning the emissions of criteria and hazardous air pollutants (HAPs) from EGUs under the Act. Accordingly, APPA members have a significant interest in EPA's Proposed Rule.

II. Full Implementation of MATS Has Resulted in Significant HAP Emission Reductions

In 2012, EPA finalized its National Emissions Standards for Hazardous Air Pollutants (NESHAP) for coal- and oil-fired electric utility steam generating units under CAA section 112(d), also known as the Mercury Air Toxic Standards (MATS).² MATS, along with other CAA programs, were the driver to the electric utility sectors' reduction in mercury, other types of HAPs, and criteria pollutants. EPA acknowledges in its Proposed Rule that coal- and oil-fired EGUs have reduced total HAP emissions by 96 percent since 2010.³ Electric utilities overall have reduced their mercury (Hg) air emissions by 85 percent (80,000 pounds) between 2006 and 2016. Total mercury emissions, including air releases and land disposal from the sector, have fallen 48% (68,000 pounds) since 2006.⁴

Nearly 20 gigawatts (GW) of coal capacity retired between January 2015 and April 2016 and about 87 GW of coal-fired plants installed emission control equipment to comply with MATS.⁵ Further, another 142 GW of coal plants applied for and received one-year extensions which allowed them to operate until April 2016 while they finalized compliance strategies, that

² 77 Fed. Reg. 9304 (February 16, 2012) (MATS Rule).

³ 84 Fed. Reg. 2689.

⁴ Toxic Release Inventory National Analysis 2016 (January 2018), https://www.epa.gov/sites/production/files/2018-01/documents/tri_national_analysis_2016_complete_0.pdf.

⁵ See, Today in Energy, Coal Plants Installed Mercury Controls to Meet Compliance Deadlines (September 18, 2017), <https://www.eia.gov/todayinenergy/detail.php?id=32952>.

in some cases, resulted in plans for retiring coal-fired plants.⁶ MATS also provided for facilities to apply for an additional one-year extension for units critical to reliability, and 2.3 GW (five units) of capacity were granted an additional year to operate.⁷

APPA underscores these retirements as part of the unprecedented investments made by numerous cities to comply with MATS. A decision to retire a coal facility is not reversible due to permit restrictions, physical decommissioning, and the economics of the power market. Concomitant with these public power retirements of baseload coal-fired electric power plants, public power and the utility industry has made substantial additional investments to replace coal-fired baseload generation with low- or non-emitting generation resources.

The electric utility industry has fully implemented MATS and continues to incur substantial costs to do so. It is estimated that owners and operators of coal- and oil-fired EGUs have spent more than \$18 billion to comply, all while retiring and investing in replacement generation, such as natural gas, renewables, hydro, and nuclear.⁸ Over the last decade, the electricity generation resource mix has changed in the United States. In 2019, the U.S. Energy Information Administration (EIA) projects approximately 24 GW of new capacity additions and 8 GW of retirements, 53 percent of which is expected to be coal-fired.⁹

Many states have also relied on MATS-related ancillary benefits in their state plans for other CAA programs. Acid gas HAPs are primarily reduced through sulfur dioxide (SO₂) controls and non-mercury metals are primarily reduced through particulate matter (PM) controls. Many

⁶ *Id.*

⁷ *Id.*

⁸ See Joint Comment Letter filed by national trade associations and labor organizations (March 26, 2019). EPA-HQ-OAR-2018-0794-0001.

⁹ See, EIA, Today in Energy, New electric generating capacity in 2019 will come from renewables and natural gas (January 10, 2019), <https://www.eia.gov/todayinenergy/detail.php?id=37952>.

sources are using these same controls to comply with other CAA obligations, such as state implementation plan (SIP) requirements for SO₂. Additionally, EGUs rely on measures taken to comply with MATS emission limits and monitoring requirement as a replacement to conducting opacity monitoring. Now that these capital expenditures are complete, we believe these state-of-the-art control technologies will continue to operate, even if MATS were to be rescinded through administrative review or judicial action. APPA does not support a rescission of the MATS Rule.

EPA should not make any fundamental changes to the MATS Rule. Rather, the Association urges the Agency to undertake a rulemaking to streamline the burdensome testing, reporting, and monitoring requirements in the MATS Rule, one of the most extensive regulations affecting coal- and oil-fired EGUs. The electric utility industry has made significant financial commitments associated with purchasing; installing and operating emission controls; performance testing; monitoring; recordkeeping; and reporting. EPA promulgated several successive rulemakings over a period of more than five years which resulted in the Agency's Technical Corrections to the MATS Rule.¹⁰ The Technical Corrections Rule sought to fix errors but did little to address overall compliance burdens. The Association believes there are elements of the MATS Rule that would benefit from modifications to streamline electronic reporting requirements, reduce costs, and support an appropriate level of flexibility. Such improvements might include: (1) Hg emission limit based on a 12-month rolling average; (2) Annual testing for Hg sorbent trap and continuous emissions monitoring systems; (3) Allow testing for low emitters for non-mercury, other HAPs (surrogates) to once every five years and; (4) reducing the frequency of performance test for units that operate less frequently. EPA can streamline or simplify some MATS requirements, improving the clarity of the rule, and reduce and simplify

¹⁰ 84 Fed. Reg. 2,681.

compliance costs without sacrificing the environmental benefits of MATS or jeopardizing the nations' investments in new energy sources.

III. EPA Has an Obligation to Consider Costs Under CAA Section 112(n)(1)(A) and Michigan. [COMMENT ISSUE C-2]

The Proposed Rule seeks to reconsider EPA's 2016 MATS Supplemental Finding, calling into question the Agency's prior rationale for establishing the MATS "appropriate and necessary" finding. The Proposed Rule concludes that the 2016 Supplemental Finding was made in error and that it is not "appropriate and necessary" to regulate HAP emissions from EGUs under CAA section 112.¹¹ EPA now finds, after considering the cost of compliance relative to HAP benefits of MATS, that it is no longer necessary to regulate coal- and oil-fired EGUs under CAA section 112.¹² The Association concurs with the proposed findings that there are substantial legal and policy concerns with the 2016 Supplemental Finding.¹³ In the following section we discuss our concerns with the 2016 MATS Supplemental Finding; however, notwithstanding these concerns, we believe the Agency should leave the underlining MATS rule in place.

The Supreme Court held in *Michigan v. EPA* that the Administrator's finding that regulating power plants pursuant to CAA section 112(n)(1)(A) was "appropriate and necessary" was unreasonable because EPA failed to consider the costs of regulating power plants.^{14,15} In light of the Supreme Court's directive, the U.S. Court of Appeals for the District of Columbia

¹¹ 80 Fed. Reg. 75,025 (December 1, 2015) (2016 Supplemental Finding).

¹² 84 Fed. Reg. 2,674.

¹³ D.C. Circuit *Murray Energy Corp. v. EPA*, No. 16-1127. Briefing concluded in March 2017. The case is in abeyance pending EPA's administrative review of the 2016 Supplemental Finding.

¹⁴ *Michigan v. EPA*, 135 S. Ct. 2,699 (2015), at 2706.

¹⁵ Reversing *White Stallion*, 748 F.3d at 1222 (D.C. Cir. 2014).

Circuit (D.C. Circuit) remanded the “appropriate and necessary” finding to the Agency for reconsideration, whereupon EPA published a “2016 Supplemental Finding” that concluded upon considering industry compliance costs for the 2012 MATS Rule, the standard was still “appropriate and necessary.”¹⁶ The Agency retroactively defended the CAA section 112 NESHAP based on its conclusions that: (1) the industry as a whole could withstand the costs of MATS and continue to generate electricity; and (2) the actual MATS compliance costs (\$6.9 billion) compared with estimated direct public health and other benefits of reducing HAPs from MATS (\$4 million) with the ancillary public health benefits, or “co-benefits,” of reducing non-HAPs such as ozone and fine particulate matter (PM_{2.5}) (\$37-90 billion) were reasonable. EPA is *required*, for purposes of CAA section 112(n)(1)A), to limit its assessment of the benefits of regulating power plants to the benefits of reducing HAP emissions. We also submit that comparing the costs of complying with MATS to the co-benefits of reducing HAPs is not consistent with *Michigan*.

The Proposed Rule correctly recognizes *Michigan* stands for the principle that where the CAA provides for consideration of costs (as most CAA programs do), the appropriate context in which to do so is in relation to benefits. Further, EPA recognizes that regulatory decisions should focus on, and be driven by, analysis of the costs and benefits that are primarily relevant to the statutory program being implemented. Where a CAA program is targeted at addressing a specific pollutant or environmental issue, EPA cannot justify its decision to act under that program by relying on ancillary co-benefits unrelated to the targeted pollutants or issues. The Association believes the cost principles articulated in *Michigan* hold true for any future rules the Agency develops, including the Agency’s proposed RTR findings for coal- and oil-fired EGUs.

¹⁶ 82 Fed. Reg. 24,420. (Apr. 25, 2016).

A. CAA Section 112(n)(1) Must Focus on the Benefits of Reducing Mercury and Other Hazardous Air Pollutants

The plain language of the Act constrains EPA’s assessment of benefits as the basis for the Administrator’s “appropriate and necessary” finding to the direct benefits of reducing hazards from HAPs emitted by power plants. CAA section 112(n)(1)(A) is, as underscored by the Supreme Court in *Michigan*, unique with respect to EPA’s NESHAP standard-setting authority.¹⁷ In that statutory provision, which only applies to the decision to regulate power plants under CAA section 112, Congress directed EPA to:

(A) perform a study of the hazards to public health reasonably anticipated to occur *as a result of emissions by electric utility steam generating units of pollutants listed under subsection (b) of this section* after imposition of the requirements of this chapter. ***

(B) The Administrator shall develop and describe in the Administrator’s Report to Congress alternative control strategies *for emissions which may warrant regulation under this section*. The Administrator shall regulate electric utility steam generating units under this section, if the Administrator finds such regulation is appropriate and necessary after considering the results of the study required by this subparagraph.¹⁸

Thus, in contrast to EPA’s authority to establish other section 112 NESHAPs for industrial categories which was based on a finding that there was a single “major source” of HAPs in the source category,¹⁹ CAA section 112(n)(1) establishes a “condition precedent” for

¹⁷ *Michigan* at 2,706, 2,710.

¹⁸ 42 U.S.C. § 7412(n)(1)(A) (emphasis supplied).

¹⁹ A major source is defined as a source that has the potential to emit 10 tons or more of a single HAP or of 25 tons of two or more HAPs. 42 U.S. C. § 7412(a)(1). EPA also may regulate HAPS from area sources, defined as a source that has the potential to emit less than 10 tons or more of a single HAP or of 25 tons of two or more HAPs. 42 U.S. C. § 7412(a)(2).

regulating power plants that required the Administrator to first conclude that the regulation was “appropriate and necessary” based on its evaluations of hazardous air pollutants and costs of regulation that Congress directed EPA to undertake.²⁰

CAA Section 7412(n)(1)(A) could not be plainer. In determining if regulation of power plants is warranted, EPA’s focus is narrow and limited solely to the consideration of the public health hazards of power plant “*pollutants listed under subsection (b) of this section* (emphasis supplied).” CAA subsection 112(b) is a list of HAPs that Congress mandated were to be regulated by Title III of the 1990 CAA Amendments.²¹ Importantly, the CAA’s list of HAPs does not contain pollutants such as ozone and PM_{2.5} from existing sources, including power plants. These pollutants are regulated by states pursuant to CAA section 110(b) ozone and fine particulate matter (PM_{2.5}) SIPs, the regulation of which is made federally enforceable through EPA’s review and approval of the state’s ozone and PM_{2.5} SIPs. EPA is also allowed to regulate ozone precursors and PM_{2.5} from new power plants and modifications under CAA Section 111. In finding that Section 112 power plant regulation was “appropriate and necessary,” the Administrator is not authorized to consider the public health hazards “reasonably anticipated to occur” as a result of emissions by electric utility steam generating units of pollutants listed” under other CAA provisions.

For these reasons, the Association supports EPA’s proposed interpretation of *Michigan* that “direct comparison of the rule’s costs and benefits is a reasonable approach, if not the only permissible approach, to considering costs.”²² This interpretation correctly recognizes that cost

²⁰ CAA Sections 112(n)(1) (A)-(B). *Michigan* at 2,706, 2,710-2,711.

²¹ Pub.L 101.-549.104 Stat. 2468 (Nov. 15, 1990).

²² 84 Fed. Reg. at 2676.

is a “centrally relevant factor” in the decision to regulate and that the only way to “meaningfully consider cost” is in relation to benefits.

B. EPA’s 2016 Supplemental Finding Did Not Examine the Cost of Regulation in Light of the Benefits

The EPA’s 2016 Supplemental Finding was based on two alternative analyses. First, EPA compared compliance costs to the electric utility industry’s historical annual revenues and annual capital expenditure and their impact on retail electricity prices, and the Agency concluded that since the costs were within the range of historical variability in the industry they “were reasonable.”²³ The Agency referred to this as the “cost reasonableness test.” Second, EPA utilized the regulatory impact analysis (RIA) provided to the Office of Management and Budget under Executive Order 12281 for the 2012 MATS rulemaking, which Agency lawyers conceded had not informed its “appropriate and necessary” finding for the MATS. EPA found that RIA’s project of aggregated benefits of \$37 to \$90 billion annually exceeded the \$9.6 billion in compliance costs by three to nine times and confirmed the Agency’s prior “appropriate and necessary finding” underlying for the MATS.²⁴ The Proposed Rule now finds that both the cost reasonableness test and the RIA were not consistent with the CAA or with the Supreme Court’s decision in *Michigan*.²⁵ APPA agrees.

²³ 82 Fed. Reg 24,420 (Apr. 25, 2016).

²⁴ 82 Fed. Reg. 24,420.

²⁵ 84 Fed. Reg. at 2,674/col.1.

1. The 2016 Supplemental Finding was not consistent with CAA Section 112(n)(1) and failed to consider whether the costs of regulation bear any “reasonable” relation to the benefits they impart.

In the case where Congress has explicitly left a gap for the Agency to fill, the Agency’s interpretation of its authority must be reasonable interpretation of the law and the basis of its determination cannot be arbitrary and capricious.²⁶ Nowhere does 112(n)(1), for instance, refer to the sustainability of most of an industry or impact of a regulation on consumer pricing as “green-lighting” regulation of the power industry under section 112. Nor does the legislative history of section 112, in general. The 1990 CAA Amendments generally support the contrary notion that technology standards must be “achievable” and “achieved in practice” by the “industry sector” regardless of its impact on the industry or effect on the price of the products it produces.²⁷ Further, the notion that the electric utility industry could survive regulation of HAPs because of the costs of the regulation were acceptable has no bearing if regulating HAPs is “appropriate,” particularly in light of EPA’s findings in 2016 that the benefits of regulating HAPs by themselves were dwarfed by its costs.²⁸ In fact, the Agency’s 2016 “cost reasonableness test” neglected benefits entirely, by comparing compliance costs to other industry-wide costs (and consumer costs), making it an invalid basis for concluding that MATS was appropriate and necessary under *Michigan*.

²⁶ *Chevron*, at 843-44.

²⁷ See CAA Section 112(d)(3).

²⁸ The finding that the industry as a whole could tolerate the capital costs of regulation did not vitiate the fact that the costs of power plant regulation were many thousands of times the value of the benefits of regulating HAPs from power plants and was therefore inconsistent with the Congress’ construction of EPA’s Section 112 authority, and thus an unreasonable foundation for regulating power plants. In fact, EPA also knew in 2016 that in fact the reliability of the industry may have been threatened by dislocations from MATS compliance that resulted in 87.4 GW of electric generation being shuttered are factored into the equation, which was not included in its analysis.

The Supreme Court found that the Agency’s 2016 “appropriate and necessary finding” was unreasonable because it only considered benefits of reducing mercury and other HAPs to the exclusion of the cost of the regulation. It held that the cost of reducing hazards from HAPs in the section 112(b) list was “centrally relevant” to whether the benefits of regulating power plants was “appropriate” and that no regulation is ‘appropriate’ if it does more harm than good.”²⁹ The Court further stated that the central relevance of costs “reflects the understanding that reasonable regulation ordinarily requires paying attention to the advantages *and* the disadvantages of agency decisions.”³⁰

2. *The Agency’s 2016 Supplemental’s Findings’ Reliance on the RIA also was neither consistent with the Act, not the Supreme Court’s decision in Michigan.*

The 2016 RIA “demonstrated that the benefits (monetized and non-monetized) of the MATS Rule were substantial and far outweighed the costs,” *but only if the ancillary benefits of non-HAP reductions were included.* In fact, the MATS RIA showed the rule’s costs of \$9.6 billion per year far-exceeded the potential estimated HAP-related \$4-6 million benefits. Notably, the Supreme Court warned EPA in 2015 that a regulation would not be “appropriate” if it imposed costs far in excess of benefits.”³¹ The benefits of reducing mercury, hydrochloric acid (HCl), and Arsenic (As) were clearly outweighed by the cost of regulation, particularly when additional cost of regulations that EPA did not consider in 2016, including, but not limited to, dislocations to the industry and temporary reliability concerns, were factored in. Even if EPA may have

²⁹ *Michigan* at 2,707-2,708.

³⁰ *Ibid.*

³¹ *Michigan* at 2,710

reasonably considered “ancillary benefits” in addition to HAP reductions if the comparison of direct benefits and direct costs were “close,” the benefits of reducing HAPs (\$4.6 million) were so clearly outweighed by their cost (\$9.6 billion) than it would have been unreasonable for EPA’s Administrator to find in 2016, under CAA Section 112(n), that the regulation was “appropriate or necessary” or that it conformed with the Court’s directives in *Michigan*.

C. EPA is Not Required to Rescind the 2012 MATS Rule If the Agency Reverses its 2016 Supplemental Finding. [Comment Issues C-1 and C-3]

1. EPA’s Administrator has the discretion pursuant to the CAA Section 301’s general authority. [Comment Issue C-1]

EPA proposes that finalizing a new response to *Michigan v. EPA* will not remove the coal- and oil-fired EGU source category from the CAA section 112(c) list of sources that must be regulated under CAA section 112(d) and will not affect the existing CAA section 112(d) emissions standards that regulate HAP emissions from power plants.³² The Agency solicits comment, however, on whether the EPA has the obligation to rescind the MATS if it finds that MATS is not necessary or appropriate.³³ The Association believes that EPA’s Administrator has the discretion pursuant to the CAA Section 301’s general authority to prescribe such regulations as are necessary to carry out his or her functions under the Act, and therefore is not obligated to rescind the MATS Rule, if doing so will be injurious to the public and the industry’s interests, particularly when power plants are publicly owned and operated.

Although the CAA’s General Provision at 301(a)(1) is normally utilized by EPA as a basis for regulating in the absence of clear authority, it also means that the Administrator has

³² 84 Fed. Reg. 2,670.

³³ *Id.*

inherent authority to decide not to regulate when there is no explicit requirement in the Act governing a particular situation and taking such an action would be disruptive. The law states that “[t]he Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this chapter.” The Supreme Court in *Massachusetts v. EPA*, dissected the government’s argument that CAA section 301 allowed EPA’s Administrator to use his “judgment to defer regulation” of greenhouse gases (GHGs’) based on political and scientific reasons.³⁴ Chief Justice Roberts, writing for the minority, emphasized that EPA was not compelled to regulate GHGs because Section 301 “says *nothing at all* about the reasons for which the Administrator may *defer* making a judgment—the permissible reasons for deciding not to grapple with the issue at the present time.”³⁵ Ultimately, the majority found that the use of the Administrator’s judgment was “not a roving license to ignore the statutory text,” which required EPA to find that GHGs were a “pollutant,” but for that independent statutory mandate, the provision “was a direction to exercise discretion within defined statutory limits.”³⁶ APPA believes it is within the Administrator’s general duty to use his discretion to sustain the MATS Rule since the CAA lacks a mandate to deal with a situation in which the Agency finds after the fact that is not “appropriate and necessary” to regulate HAP emissions.

Even if rescinding the MATS Rule is a potential solution because it was not “appropriate and necessary,” such an action would be detrimental to the private and public owners and operators of power plants, including the U.S. government, as well as cities and State governments. The communities that own public power in which APPA’s members operate, as we

³⁴ *Massachusetts v. EPA* 549 U.S. 497 (2007).

³⁵ *Id.* 552.

³⁶ *Id.* at 533.

have discussed above, invested in pollution controls that may have been legally unwarranted, but these pollution controls are now part of the fabric of their operations, articulated in their state and federal operating CAA permits, and ensconced in the price of electricity to consumers.

Withdrawing MATS, while within EPA's discretion, would impose additional costs and turmoil that are not reasonable.

IV. APPA Supports EPA's Proposed Residual Risk and Technology Review (RTR)

EPA is proposing to conduct an RTR analysis under its authority provided by sections 112 and 301 of the CAA. This review involves evaluating whether established technology-based standards set up under CAA section 112, maximum achievable control technology (MACT) standards need to be revised to address any remaining risk associated with HAP emissions, which is referred to as the risk review. The CAA also requires EPA to review the MACT standard every eight years to determine if there are "developments in practices, processes or control technologies" that may be appropriate to incorporate into the standard.³⁷

CAA section 112(f)(2) requires EPA to promulgate risk-based standards for a source category if necessary to "provide an ample margin of safety to protect public health," or to prevent an "adverse environmental effect, taking into consideration costs, energy, safety, and other relevant factors, and adverse environmental effect."³⁸ Likewise, section 112(d)(6) requires EPA to periodically "review, and revise as necessary" MACT standards for source categories "taking into account development in practices, processes and control technologies."³⁹ The Association supports EPA's conclusion that due to full implementation of MATS, low health

³⁷ 84 Fed. Reg. 2680.

³⁸ CAA § 112(f)(2)(A).

³⁹ CAA § 112(d)(6).

risks remain, and MATS adequately protects public health and the environment; therefore, no further control measures are required of EGUs to comply with requirements of section 112.

A. EPA Should Finalize its RTR Findings as Soon as Practical

The Agency should finalize the statutorily mandated RTR for coal- and oil-fired EGUs under CAA section 112(d)(6) and (f)(2) as soon as practical. The Act mandates that an RTR must be completed by April 16, 2020, eight years after MATS became effective. In the past, where EPA has missed these statutory deadlines, stakeholders have filed deadline lawsuits and obtained court orders placing EPA on a court-directed schedule to complete final rules on a short timeframe.⁴⁰ These compressed timelines may not allow the Agency to complete a robust RTR and possibly constrain Agency resources to complete the reviews. Undertaking the RTR for coal- and oil-fired EGUs now will ensure EPA has competently considered all relevant issues with respect to this source category in a timely fashion, and it should expeditiously meet its statutory deadline to finalize its RTR assessment which recognizes the significant emission reductions achieved due to MATS. In addition, a robust and complete RTR would recognize the capital investment already made by industry.

EPA's analyses supporting the proposed RTR is appropriate, as is EPA's proposed conclusion that no additional or more stringent standards are warranted. Moreover, EPA has the authority to complete the RTR separately from the proposed reconsideration of the Supplemental Finding. If the Agency finds it requires additional time to address issues arising from its 112(n)(1)(A) analysis, EPA may, and should, take final action on the RTR separately before the statutory deadline expires. It is within EPA's authority to conduct its risk and technology review

⁴⁰Clean Air Act Advisory Committee Meeting, (December 2017) https://www.epa.gov/sites/production/files/2017-12/documents/121217_caaac_rtr_harnett.pdf.

even if EPA ultimately concludes later that the MATS Rule was not appropriate and necessary, so long as EGUs remain subject to standards under CAA section 112(d).

B. APPA Supports EPA’s Analysis That No Further Reduction in EGU HAP Emissions Is Necessary Under the Risk Review Provisions of § 112(f)(2)

Under EPA’s risk review, the Agency estimates there are 713 existing coal- and oil-fired EGUs located at 323 facilities subject to MATS.⁴¹ The Agency used the “two step standard setting approach” as explained in the Benzene NESHAP to determine whether or not risk is acceptable.⁴² EPA considered all available health information and risk estimations and uncertainties. EPA has assessed risk from coal- and oil-fired EGUs on multiple occasions as part of the Agency’s obligation under section 112 to decide whether it is “appropriate and necessary” to regulate.⁴³ After each of these analyses, the Agency has found little or no definite or quantifiable risk from EGUs’ HAP emissions.

Based on the Agency’s inhalation risks assessments of actual, allowable, acute, and facility -wide (i.e., including multi-pathway risk and environmental risks) HAP emissions, EPA proposes to find that the risks associated with EGU HAP emissions are acceptable.⁴⁴ Further, in light of these low risks, the minimal health benefits that would result from further reductions,

⁴¹ 84 Fed. Reg. 2686.

⁴² 54 Fed. Reg. 38044 (September 14, 1989) (Benzene NESHAP).

⁴³ See, e.g., 40 Fed. Reg. 48,292, 48-297-98 (Oct. 14, 1975); 52 Fed. Reg. 8724, 8725 (Mar. 19, 1987). In 1998, EPA completed the Utility Study mandated under § 112(n)(1)(A), which required EPA to study “the hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units of [HAPs] after imposition of the requirements of [the CAA].” EPA also completed the Mercury Study in 1997 to evaluate the “Rate and mass” of EGUs’ mercury emissions, “the health and environmental effects of such emissions,” and the cost of available control technologies. CAA § 112(n)(1)(B). The Agency relied on these studies to issue its 2000 “appropriate and necessary” finding. 65 Fed. Reg. 79,825 (Dec. 20, 2000). EPA again evaluated the risks from EGU HAPs in 2005 when it withdrew that “appropriate and necessary” finding. 70 Fed. Reg. 15,994 (Mar. 29, 2005). And after that withdrawal was reversed, EPA once again analyzed the risks from EGU HAPs in its 2012 “appropriate and necessary” finding in support of MATS. See 77 Fed. Reg. at 9362.

⁴⁴ 84 Fed. Reg. 2700.

and the lack of additional measure for reducing EGU HAP emissions, MATS, in its current form, provides an ample margin of safety to protect public health and is sufficient to prevent adverse environment effect. Accordingly, no further tightening of the standard is necessary. Further, EPA's analysis finds that EGU HAPS do not present adverse environmental effects because all facilities screen out of that analysis.⁴⁵ The Association supports EPA's proposed conclusion that public health and environmental risks from EGU HAP emissions "provide an ample margin of safety to protect human health" and prevent...adverse environmental effect."⁴⁶

EPA's analysis is consistent with research performed by the Electric Power Research Institute (EPRI). EPRI's research shows that post-HAP emissions from coal-fired EGUs are below levels of concern. EPRI's report titled, "*Multi-Pathway Human Health Risk Assessment for Coal- Fired Power Plants*" concludes that the potential for health risks arising from HAP emissions from modeled coal-fired power plants is below EPA's acceptable risk threshold of 1×10^6 .⁴⁷

C. APPA Supports EPA's Analysis That No Further Reduction in EGU HAP Emissions Is Necessary Under the Technology Provision of § 112(d)(6)

Section 112 of the CAA requires EPA to establish technology-based MACT standards for listed source categories that are sources of HAPs. Section 112 also contains provisions requiring EPA to periodically review the standards. Specifically, paragraph 112(d)(6) states:

⁴⁵ 84 Fed. Reg. 2607 Tbl .5, 2700.

⁴⁶ *Id.*

⁴⁷ Electric Power Research Institute, *Multi-Pathway Human Health Risk Assessment for Coal- Fired Power Plants*, (June 2018), Report Number 3002013523 (EPRI Risk Assessment).

The Administrator shall review and revise as necessary (taking into account developments in practices, processes, and control technologies), emissions standards promulgated under this section no less often than every 8 years.⁴⁸

In accordance with section 112(d)(6), EPA conducted a technology review to identify developments in practice, processes, and control technologies applicable to coal- and oil-fired EGUs subject to MATS. EPA's analysis focused on technology developments since the original MATS Rule was promulgated. EPA proposes to find that "no developments in practices, processes or control technology, not any new technologies or practices were identified for the control of non-Hg HAP metals, acid gas HAP or Hg."⁴⁹ Likewise, "no developments in work practice or operational procedures have been identified for [coal- and oil-fired EGUs] regarding the additional control of organic HAP."⁵⁰ EPA supports these conclusions with its Technology Review Support Document.⁵¹ The Association agrees with EPA's Proposed Rule with respect to the technology review.

The Supreme Court in *Michigan* clarified that cost is generally "a centrally relevant factor when deciding whether to regulate."⁵² Therefore, when EPA considers the cost of adopting more stringent emission requirements under the technology review, the Agency must weigh those costs against the resulting benefits from reducing HAP emissions. Considering the

⁴⁸ CAA§ 112 (d)(6).

⁴⁹ 84 Fed. Reg. 2700.

⁵⁰ *Id.*

⁵¹ Technical Support Document Memorandum, "Technology Review for Coal- and Oil-Fired EGU Source Category" (July 2018), EPA-HQ-OAR-2018-0794-0015. (Technology Review TSD).

⁵² *Michigan*, 135 S. Ct. at 2707.

risk review, further HAP emission reductions is not appropriate even if there were technology advancements.

1. *No Significant Developments in Emission Control Technologies*

MATS was fully implemented in 2016, thus allowing EGU owners and operators to amass a little over four years for compliance experience. Since then, there have been relatively little time for significant advances in emission controls. Generally, the technologies EGUs use to control HAPs emissions are those which also are used to control criteria emissions. These technologies are well known and in commercial operation at the time MATS was promulgated. In addition, the general costs of these technologies have not significantly been reduced, if anything capital costs to install fabric filters (FF) and selective catalytic reduction (SCR) systems have increased since 2012. The increase in cost is largely due to the complexity of the site, as the retrofitted units were located at smaller and older facilities with a limited footprint to tie in the necessary ductwork modifications.⁵³ Whereas less complex sites benefited from lower capital costs to install MATS or other CAA related emission control technologies.

The MATS Rule has led to the installation of controls such as dry sorbent injection for SO₂, sulfur trioxide (SO₃), and hydrogen chloride (HCl); further particulate matter controls like electrostatic precipitators (ESPs) were either upgraded or replaced FF. In addition, special purpose controls were implemented, such as halogenated or conventional activated carbon injection, specialized selective catalytic reduction catalysis, halogen addition to the fuel or flue gas to promote the oxidation of Hg and flue gas desulfurization additives to minimize Hg re-emission from the wet flue gas desulfurization process. Based on the effectiveness of the control

⁵³ J. Edward Cichanowicz, *Capital Cost and Cost-Effectiveness of Electric Utility Coal-Fired Power Plant Emissions Control Technologies: 2017 Update*, (December 2017). (See Report as an exhibit filed with the comments of the Utility Air Regulatory Group).

technologies installed to comply with MATS, the Association supports EPA's determination that no revision to MATS based on technology is warranted.

In 2012, EPA conducted a "beyond the floor" analysis in the MATS Rule to determine whether it would be achievable to promulgate MACT standards that were more stringent than the relevant MACT floor, a level based on the use of certain emission control technologies and processes.⁵⁴ EPA concluded that beyond the floor standards would not be achievable. EPA need not revisit its analysis here, since there have been no significant changes in emission controls since EPA last considered them.

Previously EPA's decision not to set beyond the floor standards for filterable PM as a surrogate for non-mercury metal HAPs based on the installation of fabric filter technology was challenged.⁵⁵ EPA determined at the time that such a standard would not be achievable, given that all EGUs were already equipped with some form of control technology for filterable PM control, and requiring the additional installation of fabric filter would impose "significant additional cost" with "minimal additional reduction" in HAP emissions.⁵⁶ Those conclusions have not changed since the MATS Rule was promulgated, and it would be arbitrary for EPA to adopt revised emission standards for non-mercury metal HAPs (or filterable PM as a surrogate) based on use of fabric filters pursuant to § 112(d)(6). The MATS rulemaking record illustrated that ESPs can achieve PM emission reductions of more than 99 percent. The requirements of MATS already require some units to install fabric filters and others to operate (or upgrade) their

⁵⁴ 76 Fed. Reg. at 25,046-47, 48-49; EPA's Responses to Public Comments on EPA's National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units, Vol. 1 of 2 at 661-68 (Dec. 2011), EPA-HQ-OAR-2009-0234-20126.

⁵⁵ *ARIPPA v. EPA*, No. 15-1180 (D.C. Cir. Apr. 3, 2017) (challenging denial of reconsideration petition seeking beyond-the-floor standards based on fabric filters).

⁵⁶ 76 Fed. Reg. at 25,047; MATS Response to Comments at 597.

ESPs for optimized filterable PM capture. Either approach would result in similar levels of non-mercury metals control.⁵⁷

2. Work Practice Standards are Still Appropriate for Organic HAPs.

The Association agrees with EPA that there is no basis for revising the work practice standards for organic HAP emissions under § 112(d)(6).⁵⁸ Section 112 authorizes the use of work practice standards where EPA determines “it is not feasible ... to prescribe or enforce an emission standard for control of a” HAP or HAPs, including where “the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations.”⁵⁹ In the MATS rulemaking, EPA determined that EGUs’ emissions of organic HAPs were generally “at or below the detection levels of the prescribed test methods, even when long duration (~8 hour) test runs were required.”⁶⁰ Because these emissions were essentially undetectable, EPA determined it would be infeasible to prescribe or enforce a numeric emission standard. There is no reason to believe that EGUs’ organic HAP emissions have increased to detectible levels after implementation of MATS. Accordingly, use of a work practice standard remains appropriate.

The MATS Rule also contains work practice standards governing periods of startup and shutdown. EPA has justified those work practice standards on the basis that it is not feasible to set numeric requirements for EGUs’ HAP emissions until the unit’s emission control devices are operational and smokestack conditions stabilize.⁶¹ The scientific and technical conclusions

⁵⁷ See *id.*; Final MATS RIA at 3-15.

⁵⁸ 84 Fed. Reg. at 2700; Technology Review TSD at 11.

⁵⁹ CAA § 112(h)(1), (2)(B).

⁶⁰ Technology Review TSD at 11.

⁶¹ See 79 Fed. Reg. 68,777, 68,780-81 (Nov. 19, 2014).

underlying EPA's rationale have not changed since EPA adopted these work practice standards. Moreover, in the ensuing years EPA's authority to establish work practice standards during startup and shutdown where traditional continuous emission controls are not feasible has been upheld by the D.C. Circuit. Consistent with this holding, there have been no developments in the emission control practices or processes available to control HAP emissions during startup and shutdown periods.⁶² Therefore, use of a work practice standard remains appropriate and is lawful.

V. Conclusion

The Association looks forward to working with the Agency as it seeks to finalize the Proposed Rule. As we have indicated in the joint comment letter and again here in our more detailed comments, we urge the Agency to move forward with a robust and complete RTR. Public Power utilities have made investments to fully comply with the MATS Rule and our communities continue to benefit. Should you have any questions regarding these comments, please contact Ms. Carolyn Slaughter (202- 467-2900 or cslaughter@publicpower.org).

⁶² *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 596 (2016).