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MJB&A Summary ■ December 29, 2018 (updated February 27, 2019[1])

Summary of Proposed NESHAP for Coal- and Oil-Fired EGUs - Reconsideration of Supplemental Finding and Residual Risk and Technology Review

On February 7, 2019, EPA published the proposed *NESHAP for Coal- and Oil-Fired EGUs - Reconsideration of Supplemental Finding and Residual Risk and Technology Review* (Proposed Reconsideration), which had been signed by the Administrator on December 26, 2018, in the Federal Register.[2] The Proposed Reconsideration finds that it is not "appropriate and necessary" to regulate hazardous air pollution (HAP) emissions from coal- and oil-fired electric utility steam generating units (EGUs). Thus, EPA is proposing to reverse its original finding of appropriate and necessary from 2000 that it affirmed in 2012 and 2016 and instead find that the costs of such regulation "grossly outweigh the HAP benefits." EPA is also proposing that this action will not remove coal- and oil-fired EGUs from the section 112(c)(1) list and will not affect the existing 112(d) regulations for coal- and oil-fired EUGs finalized in 2012, the Mercury and Air Toxics Standards (MATS). However, EPA is requesting comment on alternatives that would rescind MATS.

Comments on the proposal are due April 17, 2019.[3]

Background

Section 112 of the Clean Air Act (CAA or Act) requires EPA to set pollution control standards for HAP emissions from a variety of sources. On December 20, 2000, EPA determined pursuant to CAA section 112(n)(1)(A) that it was "appropriate and necessary" to regulate HAP emissions from coal- and oil-fired EGUs under section 112 and added such units to the section 112(c) list of sources that must be regulated under section 112(d). On February 16, 2012, EPA finalized *National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units (Utility NESHAP)*, or MATS, which reaffirmed the 2000 finding and established standards for HAP emissions from new and existing coal- and oil-fired EGUs. The final standards required compliance with federal limits on emissions of power plant HAP emissions and required overall reductions in mercury emissions of 90 percent as well as reductions in acid gases and particulate matter (PM). Consistent with the CAA, EPA required compliance within three years of the final rule, providing an opportunity for extensions for certain units. As of 2018, all covered units have complied with the standards.

A number of legal challenges were brought against the final rule when EPA finalized it. All the legal challenges except one have been resolved. In June 2015, the Supreme Court issued its decision in *Michigan v. EPA* on the question of "whether the EPA unreasonably refused to consider costs in determining whether it is appropriate to

[1] This summary has been updated to reflect the proposal's date of publication in the Federal Register and the revised deadline for public comment.

[2] 84 Fed. Reg. 2670.

[3] EPA is requesting that commenters identify the unique identifier to which the comment is responsive (e.g., C-1, C-2, etc.). We note throughout this summary such references.

regulate HAPs emitted by electric utilities." The Court held that Congress intended costs to be considered in the Agency's "appropriate" decision although the opinion stated that the Act does not necessarily require EPA to "conduct a formal cost-benefit analysis in which each advantage and disadvantage is assigned a monetary value." EPA's Regulatory Impact Analysis (RIA) for the final rule estimated that the regulation would require power plants to bear costs of $9.6 billion per year and would result in benefits of $4 to $6 million per year. These estimated benefits did not include co-benefits associated with cutting power plants' emissions of particulate matter and sulfur dioxide (SO_2). EPA's RIA for the 2012 rule estimated that the quantifiable benefits of the final regulation, including co-benefits, would be $37 to $90 billion per year.

Proposed Reconsideration

In the Proposed Reconsideration, EPA proposes to conclude that it is not appropriate and necessary to regulate HAPs from EGUs under CAA section 112. EPA proposes to directly compare the costs of compliance with MATS with the benefits specifically associated with reducing emissions of HAPs, not including co-benefits, and finds that "the costs of such regulation grossly outweigh the quantified HAP benefits." EPA states that the "total cost of compliance with MATS ($7.4 to $9.6 billion annually) dwarfs the monetized HAP benefits of the rule ($4 to $6 million annually)." The Proposed Reconsideration cites *Michigan* to argue that the Agency must consider cost within the context of the benefits as the Court noted that "no regulation is 'appropriate' if it does more harm than good." EPA also states that "if the HAP-related benefits are not at least moderately commensurate with the costs of HAP controls, then no amount of co-benefits can offset this imbalance for purposes of a determination that it is appropriate to regulate" under section 112. To make this argument, EPA cites the discussion in *Michigan* that "[o]ne would not say that it is even rational, never mind "appropriate," to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits."

EPA notes that "the actual costs and benefits of the MATS rule may differ from the EPA's analysis." However, EPA states that given that the appropriate and necessary finding is a "threshold analysis" that should be completed prior to regulation, "EPA believes it is reasonable for purposes of this reconsideration to rely on the estimates projected prior to the rule's taking effect, i.e., the estimates of costs and benefits calculated in the 2011 RIA" rather than conducting a new analysis using *ex post* calculations of costs and benefits. EPA also argues that it would expect that given the "large difference between target HAP benefits and estimated costs, the outcome of the Agency's proposed finding here would likely stay the same."

With respect to unquantified HAP benefits (e.g., neurologic, cardiovascular, genotoxic, and immunotoxic effects from mercury and cancer and chronic and acute health disorders that affect lungs and kidneys from non-mercury HAPs), the proposal states that EPA "has concluded that the identification of these benefits is not sufficient in light of the gross imbalance of monetized costs and HAP benefits to support a finding that it is appropriate and necessary to regulate EGUs" under section 112. EPA requests comment on the proposed approach of comparing the rule's costs and benefits and whether EPA should focus primarily on benefits associated with the reduction of HAP emissions, and not co-benefits.[4]

Regarding co-benefits, which EPA states are largely associated with monetized PM co-benefits, EPA argues that because the appropriate and necessary determination occurs after criteria pollutants have been addressed by other CAA requirements, it supports the Agency's conclusion "that it is *not* proper to place much weight on the co-benefits of further criteria pollutant reductions." EPA also notes that it is "appropriate not to give equal weight to non-HAP co-benefits" given that Congress established a regulatory program to address criteria pollutants. EPA

[4] C-2.

also states that because the "vast majority of estimated monetized benefits result from MATS are associated with reduction in $PM_{2.5}$ precursor emissions, principally NOx and SO_2," which are already addressed by the National Ambient Air Quality Standards (NAAQS) provisions, EPA can continue to regulate these through the NAAQS program to the extent additional reductions are necessary. Finally, EPA explains that while "an analysis of all benefits and costs in accordance with generally recognized benefits-cost analysis practices is appropriate for informing the public about the potential effects of any regulatory action, as well as for complying with the requirements of Executive Order 12866, this does not mean that equal consideration of all benefits and costs, including co-benefits, is appropriate" for the appropriate and necessary finding under section 112.

Effect of Proposed Approach on MATS

EPA explains that final action on the Proposed Reconsideration will "reverse the Agency's conclusion under CAA section 112(n)(1)(A), first made in 2000 and later affirmed in 2012 and 2016, that it is appropriate and necessary to regulate HAP from EGUs." However, this finding is not proposed to affect the MATS requirements. EPA states that under *New Jersey v. EPA*,[5] "EPA's determination that a source category was listed in error does not by itself remove a source category form the CAA section 112(c)(1) list." Rather, in order to remove a source category, EPA must determine that the statutory criteria for delisting under section 112(c)(9) have been met.[6] Citing the opinion in *New Jersey*, EPA notes that "the only way the EPA could remove EGUs from the section 112(c)(1) list was to satisfy those criteria." In that case, the Agency had argued that "if EPA makes a determination under section 112(n)(1)(A) that power plants should not be regulated at all under section 112…[then] this determination *ispo facto* must result in removal of power plants from the section 112(c) list." The Proposed Reconsideration notes that the *New Jersey* court held that section 112(c)(9) "limited the normal discretion an Agency would typically have to reverse its position and undo the administrative determination to list EGUs as a source category."

The Proposed Reconsideration makes clear that EPA has not conducted a delisting analysis, nor it is requesting comment on whether such an analysis should be undertaken. Under section 112(c)(9)(B), EPA can remove or delist a source category from section 112(c) if the Agency determines that:

(1) For HAP emissions that may cause cancer in humans, no source in the category emits such HAPs in quantities that may cause a lifetime risk of cancer greater than one-in-one million, and

(2) For HAP emissions that may result in human health effects other than cancer or adverse environmental effects, emissions from no source in the category exceed a level that is adequate to protect public health with an ample margin of safety and no adverse environmental effect will result from any source.

The Proposed Reconsideration notes that its risk review (discussed below) indicates that with the MATS rule in place, the "estimated inhalation cancer risk to the individual most exposed to actual emissions from the source category is 9-in-1 million." EPA also discusses that in past considerations of the statutory delisting criteria, EPA has found that the criteria were not met as it found that the cancer risks are greater than one-in-one million.

Alternatives that Would Rescind MATS

EPA also requests comment on alternative interpretations and asks whether *New Jersey* limits EPA's authority to rescind MATS.[7]

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5 *New Jersey v. EPA*, 517 F.3d 574 (D.C. Cir. 2008).

6 EPA is requesting comment on this interpretation of *New Jersey*, C-3.

7 As discussed in this section, EPA specifically requests comment on whether EPA has the authority or obligation to delist the source category and rescind the standards or to rescind the standards without delisting (C-1) and whether EPA could reasonably conclude that New Jersey does "not limit the Agency's authority to rescind the MATS rule (C-6). EPA also asks if there are any alternative

Authority to Rescind MATS and Delist EGUs from Section 112(c)

EPA requests comment on whether EPA would have the authority to rescind MATS and delist EGUs from section 112 if it finalizes the proposed conclusion that it is not appropriate and necessary to regulate HAPs from coal- and oil-fired EGUs.[8] To support the argument that it has the authority to rescind MATS, the first option would be for EPA to argue that the facts underlying this Proposed Reconsideration are distinguishable.[9] The Proposed Reconsideration notes that in *New Jersey*, the original 2000 appropriate and necessary finding was in place but because the standards were not yet in place, the 2000 finding was not reviewable by the court. Now, however, EPA explains that the Supreme Court has held that EPA's determination that it was appropriate and necessary to regulate HAPs was flawed, and therefore, "EPA necessarily retains the discretion to reach a different conclusion from that reached in 2012 when we promulgated MATS." Thus, EPA argues in the Proposed Reconsideration that "*New Jersey* does not limit the effects of an action made in response to a Supreme Court decision finding the original action flawed, nor does it limit the Agency's ability to revise its response to a Supreme Court decision." Under this reasoning, EPA states that *New Jersey* would not limit its authority to rescind MATS and remove EGUs from the list of source categories after finalizing the Proposed Reconsideration that it is not appropriate and necessary to regulate HAP emissions from EGUs.

Authority to Rescind MATS Even if EGUs are Not Removed from Section 112(c)

Second, EPA requests comment on whether it would have the authority to rescind the MATS rule while EGUs remain a listed source category "in light of the fact that CAA section 112(n)(1)(A) plainly establishes that the Administrator must find regulation under CAA section 112 is appropriate and necessary as a prerequisite to undertaking such regulation."[10] Thus, under this interpretation, EPA would argue that: a) the Act requires EPA to find that it is appropriate and necessary to regulate EGUs in order to establish the standards, and b) the *New Jersey* decision did not address the question of whether EPA must regulate HAPs in the absence of a valid appropriate and necessary finding.

Obligation to Rescind MATS

Finally, EPA also asks whether EPA is obligated to rescind the rule "in light of the fact that the CAA section 112(n)(1)(A) finding is a threshold determination to setting CAA section 112(d) standards."[11]

Risk and Technology Review

The Proposed Reconsideration also includes a risk and technology review (RTR). Under section 112(f), if EPA determines the residual risks associated with a pollutant after regulation are unacceptable, it must determine standards necessary to reduce the risk to an acceptable level. Additionally, EPA must consider whether the emission standards provide an ample margin of safety to protect public health "in consideration of all health information, including the number of persons at risk levels higher than approximately 1 in 1 million, as well as other relevant factors, including costs and economic impacts, technological feasibility, and other factors relevant to each particular decision." Based on that analysis, EPA must promulgate emission standards necessary to provide an ample margin of safety to protect public health. However, if EPA determines a more stringent standard is necessary to prevent an adverse effect, the Agency must consider cost, energy, safety, and other relevant factors.

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interpretations of the impacts of finalizing a finding that it is not appropriate and necessary to regulate HAP emissions from EGUs as well as alternative interpretations of *New Jersey* (C-9).

8 C-4.

9 C-7.

10 C-8.

11 C-5 and C-9.

Section 112(d)(6) separately requires EPA to conduct a technology review and revise 112 standards "as necessary (taking into account developments in practices, processes, and control technology)" no less often than every eight years.

Based on data submitted to EPA's National Electric Energy Data System (NEEDS) database, Emissions Collection and Monitoring Plan System (ECMPS) for calendar year 2017, and additional information available to EPA on technologies currently being used by EGUs, EPA finds that the estimated cancer minimum individual lifetime risk is nine-in-one million and that "nickel emissions from oil-fired EGUs are the major contributor to the risk." EPA also notes that the estimated incidence of cancer due to inhalation exposure is 0.04 excess cancer cases per year, and approximately 190,000 people face an increased cancer risk at or above one-in-one million due to inhalation exposure to HAP emissions from this source category.

To determine whether the risks are acceptable for the source category, EPA considered the risks noted above and those additionally discussed in the Proposed Reconsideration and finds that "risk results indicate that both the actual and allowable inhalation cancer risks to the individual most exposed are well below 100-in-1 million, which is the presumptive limit of acceptability." EPA also notes that the highest chronic no cancer Target-organ-specific Hazard Index (TOSHI) and highest acute noncancer hazard quotient (HQ) are well below one, indicating a low likelihood of adverse noncancer effects from inhalation. As a result, EPA "proposes that the risks are acceptable for this source category."

Regarding the ample margin of safety analysis, EPA concludes that "there is not an adverse environmental effect from the Coal- and Oil-fired EGU source category." EPA explains that the existing air pollution control technologies provide capture efficiencies necessary for compliance with MATS and that the work practice approaches continue to be more effective than establishing a numeric limit that cannot be reliably measured or monitored. EPA also notes that it did not identify any developments in new technologies, practices, processes, or work practices for the control of HAP emissions.

Subcategory for Coal Refuse

The Proposed Reconsideration notes that EPA is considering establishing a subcategory for acid gases from existing EGUs firing eastern bituminous coal refuse. EPA requests comment on whether this subcategory is needed and on the standard that would be appropriate.[12] EPA explains that there are ten EGUs in Pennsylvania and West Virginia that currently operate using eastern bituminous coal refuse that could be eligible for the potential subcategory. EPA requests comment on the operating costs for these units, the availability and cost of their fuel supply, and any planned retirements.[13] EPA also outlines the approach it would take to set standards for sulfur dioxide and acid gases and requests comment on the approach.[14]

[12] C-11, C12, C-18.
[13] C-17.
[14] C-19.

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