

**LEGAL AND POLICY BASIS FOR EPA TO FOREGO THE REGULATION OF
NON-MERCURY HAP EMISSIONS FROM UTILITY BOILERS**

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LEGAL AND POLICY BASIS FOR EPA TO FOREGO THE REGULATION OF NON-MERCURY HAP EMISSIONS FROM UTILITY BOILERS

A. Introduction And Summary

On December 20, 2000, EPA issued a Regulatory Finding under § 112(n)(1)(A) of the CAA that regulation of HAP emissions from coal-fired electric utility steam generating units under § 112 is appropriate and necessary. 65 Fed. Reg. 79825 (“Regulatory Finding”). Although noting that a handful of other HAPs may pose a potential concern to public health,¹ EPA based its Regulatory Finding exclusively on the potential hazards of mercury emissions from coal-fired units.² EPA made no regulatory finding with respect to certain HAP metals, acid gases and organic HAPs, but noted that emissions of these substances “may be evaluated further during the regulatory process.”³

This white paper addresses the question of whether EPA has a legal obligation to regulate these non-mercury HAPs, notwithstanding the absence of a regulatory determination that they pose a hazard to public health. In so doing, the paper surveys the mandate and legislative history of CAA § 112(n)(A)(1), which provides the exclusive authority for EPA to regulate HAP emissions from utility boilers.

Review of the CAAA and its legislative history indicates that Congress viewed the regulation of HAP emissions from utility boilers as residual to the controls to which such boilers are otherwise subject under other provisions of the CAA. The fact that utility boilers are subject to significant emissions controls independently of § 112 was noted in the CAAA’s legislative history and is in contrast with the status of the majority of source categories subject to HAP emissions controls, for which § 112 is the primary means of regulation. In choosing to address HAP emissions from utility steam generating units separately from HAPs from other sources, Congress in § 112(n) instructed EPA to regulate HAP emissions from power plants *only to the extent that they pose a health risk after imposition of the other requirements of the CAA*. Section 112(n)(1)(A) makes clear that the factual predicate for regulating HAP emissions from power plants is an EPA finding that a hazard to public health is “reasonably anticipated to occur as a result of” those emissions.

It has been suggested that EPA has a statutory obligation to regulate *all* HAPs emitted by power plants, regardless of the absence of risk. This maximalist view of regulation is at odds with the plain meaning of § 112(n) and would vitiate the clearly-expressed Congressional intent that the Agency regulate only those emissions that “have been demonstrated to cause a significant threat of serious adverse effects on the public health.” Further, a previous judicial interpretation of a different subsection of § 112 as requiring regulation of all HAPs emitted by a major source is not controlling with respect to this provision.

¹ 65 Fed. Reg. at 79827.

² *Id.* at 79828.

³ *Id.* at 79827.

EPA's Regulatory Finding provides the factual predicate under § 112(n)(1)(A) only for the regulation of mercury emissions from coal-fired units. Having made no regulatory finding that acid gases, HAP metals and organic HAPs from coal-fired utility boilers pose a risk to public health, nothing in the record or the CAA gives rise to a legal requirement for EPA to regulate these emissions.

B. The Clean Air Act Calls For EPA To Regulate Only Those HAP Emissions From Utility Boilers That Pose A Significant Risk To Public Health

Review of the CAAA and its legislative history indicates that Congress viewed the regulation of HAP emissions from utility boilers as residual to the controls to which such boilers are otherwise subject under other provisions of the Act (such as the Acid Rain Program and controls to achieve the NAAQS). The fact that utility boilers are subject to significant emissions controls independently of § 112 was noted in the CAAA's legislative history and is in contrast with the status of the majority of source categories subject to HAP emissions controls, for which § 112 is the primary means of regulation. This distinction explains the differentiated treatment of utility boilers under § 112(n) from the § 112(d) approach to setting MACT applicable to most other source categories. As discussed below, Congress authorized EPA to regulate only those HAP emissions from utility boilers that were found to pose a significant risk to public health.

EPA's authority to regulate HAP emissions from utility boilers is contained in its entirety in CAA § 112(n)(1)(A),⁴ which states:

The Administrator shall 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. The Administrator shall report the results of this study to the Congress within 3 years after November 15, 1990. 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.

This statutory mandate calls for EPA potentially to regulate electric utility HAP emissions only as the final step in a multi-step process. As EPA acknowledged in the Report to Congress mandated by the provision (hereinafter "the Utility HAP Study"),⁵ §112(n) calls for EPA to:

⁴ 42 U.S.C. § 7412(n)(1)(A).

⁵ EPA, "Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units – Final Report to Congress" EPA-453/R-98-004a, February 1998, Volume 1 at ES-1.

1. Perform a study of the health impacts of HAP emissions from electric utility steam generating units;⁶
2. “develop and describe ... alternative control strategies for [HAP] emissions which [on the basis of the study of health hazards] may warrant regulation under this section”⁷ and
3. “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.”⁸

1. A Finding Of Significant Risk To Public Health Remaining After Implementation Of Other CAA Regulatory Programs Is A Necessary Factual Predicate To Regulation Of HAP Emissions From Utility Boilers Under §112(n)(1)

In choosing to address HAP emissions from utility steam generating units separately from HAPs from other sources, Congress in § 112(n) instructed EPA to regulate HAP emissions from power plants *only to the extent that they pose a health risk after imposition of the other requirements of the CAA*. Section 112(n)(1)(A) makes clear that the factual predicate for regulating HAP emissions from power plants is an EPA finding that a hazard to public health is “reasonably anticipated to occur as a result of” those emissions.

The first sentence of the subsection calls for an EPA study to evaluate whether such a residual hazard exists following implementation of emissions controls on utility boilers under other provisions of the Act. Two sentences later within the same subsection, the statute calls for EPA to report to Congress “alternative control strategies for emission which may warrant regulation under this section.” The only basis provided within the subsection for determining whether the emission of a HAP warrants regulation is the finding of a health threat by way of the study called for by the first sentence. Finally, EPA’s authority to regulate HAP emissions from power plants is expressly conditioned on the finding of such a health threat: “The Administrator shall regulate [HAP emissions from power plants] ... *if the Administrator finds such regulation appropriate and necessary after considering the results of the study required by this subparagraph.*” Thus, the plain meaning of § 112(n)(1)(A) limits EPA’s regulatory authority to the emissions of those HAPs that its study concludes are “reasonably anticipated” to pose a hazard to public health.

Congressional intent behind the plain meaning of § 112(n)(1)(A) is made equally clear by the legislative history of the CAAA. Indeed, Congress, in conference, explicitly rejected a provision that would have authorized EPA to regulate HAP emissions from electric utilities independently of the Agency’s study of their health effects. Rep. Michael Oxley, a member of

⁶ *Id.*

⁷ § 112(n)(1)(A), 42 U.S.C. § 7412(n)(1)(A) (emphasis added).

⁸ *Id.*

the conference committee tasked with reconciling the House and Senate versions of § 112, stated in floor debate on the Conference Report to the CAAA:

[T]he Senate provision was the result of a complex, and ultimately unsatisfactory, set of negotiations. Unlike the House provision, scientific studies were not to serve as the basis for regulation, but simply were to be included in the docket of the regulatory process leading to regulations. Under the Senate provision, regulations for the control of particulates and mercury would have had to have been promulgated no sooner or later than 5 years after enactment.

Rather than accept the Senate provision, the conference favored an approach that adopted the basic House provision....*The conferees agreed to the House provision because of the logic of basing any decision to regulate on the results of scientific study and because of the emission reductions that will be achieved and the extremely high costs that electric utilities will face under other provisions of the new Clean Air Act amendments.*⁹

As Rep. Oxley explained, the conference provision enacted into law restricts EPA's authority to regulate HAPs to instances of a demonstrated, significant threat of serious adverse effects on public health:

Pursuant to section 112(n), the Administrator may regulate fossil fuel fired electric utility steam generating units *only if the studies described in section 112(n) clearly establish that emissions of any pollutant, or aggregate of pollutants, from such units cause a significant risk of serious adverse effects on the public health.* Thus, if the Administrator regulates any of these units, he may regulate only those units that he determines – after taking into account compliance with all provisions of the act and any other Federal, State, or local regulation and voluntary emission reductions – have been demonstrated to cause a significant threat of serious adverse effects on the public health.

It follows that the regulation of any HAP emissions from power plants that do *not* satisfy these statutory criteria – i.e., are regulated on the basis of anything other than a finding of a significant threat to public health – would be *ultra vires*. See *Bowen v. Georgetown Univ. Hospital* 488 U.S. 204, 208, 109 S.Ct. 468, 471 (1988) (“It is axiomatic that an administrative agency’s power to promulgate legislative regulations is limited to the authority delegated by Congress.”).

⁹ A&P Cong. Record E3670, E3671 (emphasis added).

2. The Only Reasonable Interpretation Of § 112(n) Is That It Authorizes EPA To Regulate Only Those HAPs That Cause Or Contribute To A Recognized Hazard To Public Health

a. The Plain Meaning Of §112(n) Conditions Regulation Of Any HAP On The Finding Of A Health Hazard

It has been suggested that EPA has a statutory obligation to regulate *all* HAPs emitted by power plants, notwithstanding the fact that EPA itself has concluded that the significant majority of these emissions do not pose a risk to public health. This maximalist view of regulation is at odds with the plain meaning of the statute and would vitiate the clearly-expressed Congressional intent that the Agency regulate only those emissions that “have been demonstrated to cause a significant threat of serious adverse effects on the public health.” Section 112(n)(1)(A) clearly limits the development of control strategies to only those emissions “which may warrant regulation” on the basis of EPA’s study of health impacts. Further, § 112(n)(1)(A) calls for EPA to regulate only those HAP emissions from power plants whose regulation is “appropriate and necessary” to prevent a “reasonably anticipated” hazard to public health. Interpreting the CAA as requiring control of *all* HAPs from power plants regardless of the health hazard they pose would simply read these phrases – and the limitations on EPA’s regulatory mandate – out of the statute. Such an interpretation of the CAA is patently unreasonable under established rules of statutory construction. Courts “are obliged to give effect, if possible, to every word Congress used.” *Reiter v. Sonotone Corp.*, 442 U.S. 330, 339 (1979); *see also Moskal v. United States*, 498 U.S. 103, 109–10 (1990) (Recognizing the “established principle that a court should give effect, if possible, to every clause and word of a statute.”) (quotation omitted).

In particular, the phrase “appropriate and necessary” indicates that Congress intended that EPA regulate selectively. The plain meaning of this limitation is that EPA is to regulate *only* those HAPs for which controls beyond those achieved by other provisions of the CAA are needed to prevent a hazard to public health. This reading of the statute is strongly supported by the CAAA’s legislative history. As stated by Rep. Oxley,

Under the existing section 112 of the Clean Air Act, EPA has addressed the question whether additional regulation of power plants is necessary to control air toxic emissions to protect the public health. EPA, thus far, has studied several substances for which emissions data and some indicator of toxicity exist: arsenic, beryllium, cadmium, hexavalent chromium, formaldehyde, and radionuclides. EPA found that additional regulation of emissions of these substances from power plants was unnecessary. For some other substances listed in S. 1630, such as mercury and other volatile substances, little scientific evidence exists about either emission rates or effects on public health or welfare. *Under the conference agreement adopting the approach that the House included in its bill, these and other scientific issues will be*

*examined, and regulations will be imposed only if warranted by the scientific evidence.*¹⁰

Thus, the statute requires EPA to examine the risk to public health posed by individual HAPs, and regulate only those for which further controls are “warranted by the scientific evidence” of significant adverse health effects.

b. The D.C. Circuit’s Holding In *National Lime Association v. EPA* Should Not Control In This Instance

A previous judicial interpretation of a different subsection of § 112 as requiring regulation of all HAPs emitted by a major source is not controlling with respect to § 112(n). In *National Lime Ass’n v. EPA*, 233 F.3d 625, 633-34 (D.C. Circ. 2000), the D.C. Circuit held that, when EPA sets a MACT standard for a source category, it must, under § 112(d)(1), regulate every HAP emitted by that category. The Court noted that § 112(d)(1) “requires EPA to promulgate regulations establishing emissions standards for each category or subcategory of major sources ... of hazardous air pollutants listed for regulation.”¹¹ *Id.* (quotations omitted). This holding should not control with respect to the regulation of HAP emissions under § 112(n). First, the plain meaning of § 112(d)(1) itself does not require regulation of every *HAP* emitted by a major source in a category or subcategory, but rather the regulation of every *major source of HAP* in a category or subcategory. The word “each” in that provision modifies “category or subcategory,” not “hazardous air pollutants.”

Furthermore, the holding of *National Lime* should not be controlling because EPA’s statutory authority to regulate utility HAP emissions is separate and distinct from the provision that the court interpreted in *National Lime*. This distinction is made clear by the legislative history of the CAAA: “Under the conference agreement, if the Administrator regulated fossil fuel fired electric utility steam generating units by adopting any major source standard or any area source standard under section 112 for those units, *he may do so only in compliance with subsection (n).*”¹² This limitation accords with the well-established canon of statutory construction that “[w]hen a statute limits a thing to be done in a particular mode, it includes the negative of any other mode.” This principle of statutory construction reflects an ancient maxim—*expressio unius est exclusio alterius*.” *National R.R. Passenger Corp. v. National Ass’n of R.R. Passengers*, 414 U.S. 453, 458 (1974) (quoting *Botany Worsted Mills v. United States*, 278 U.S. 282, 289 (1929)).

The significance of the difference in EPA’s source of regulatory authority is that § 112(n) sets very different standards for regulation than those set by § 112(d), which were

¹⁰ *Id.* at E3671 (emphasis added).

¹¹ Section 112(d)(1) states, in relevant part:

The Administrator shall promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of hazardous air pollutants listed for regulation pursuant to subsection (c) of this section in accordance with the schedules provided in subsections (c) and (e) of this section.

¹² A&P Cong. Record at E3671 (emphasis added).

interpreted by *National Lime* as requiring controls on *all* HAPs emitted by a covered source. As discussed above, section 112(n)(1)(A) prescribes a selective and purely risk-based protocol for the regulation of utility HAP emissions. This approach is based on Congress's recognition that utility emissions already are regulated to a great extent under other provisions of the CAA. In contrast, the benchmark for EPA's standard setting under § 112(d) is the emissions limitation achieved by the best controlled similar source (with respect to new sources) or the best controlled 12% of similar sources (with respect to existing sources). *See* § 112(d)(3), 42 U.S.C. § 7412(d)(3). Notwithstanding this benchmark, § 112 does provide EPA with the discretion to set risk-based standards for the control HAP emissions from all source categories and subcategories. *See* § 112(d)(4) (threshold pollutants); §§ 112(c)(9), 112(f) (non-threshold pollutants). But § 112(d) creates a rebuttable presumption of regulation based on the emissions performance of the best-controlled sources in the category or subcategory, while § 112(n) calls for selective regulation of utility HAP emissions premised entirely on a finding of health risk.

This distinction is particularly apparent in § 112(n)'s "necessary and appropriate" language, for which § 112(d) contains no analogue. While § 112(d) calls for regulation with reference to the emissions limitation achieved by similar sources, § 112(n) calls for regulation of utility HAP emissions only insofar as it is "appropriate and necessary after considering the results of the study [of health risk] required by this subparagraph." Congress provided a distinct regulatory mandate for utility HAPs "because of the logic of basing any decision to regulate on the results of scientific study and because of the emission reductions that will be achieved and the extremely high costs that electric utilities will face under other provisions of the new Clean Air Act amendments."¹³

Section 112(n) also sets different deadlines for regulation than those set by § 112(d)(1). As stated in § 112(d)(1), the schedule for regulation under that subsection is provided by subsections (c) and (e), which set deadlines for standards to be promulgated in terms of the proportion of listed subcategories to be covered a given number of years from 1990.¹⁴ In contrast, § 112(n)(1) provides no firm deadline for EPA to regulate HAP emissions from utility boilers, but rather conditions such regulation on EPA's evaluation of the findings of its study of such emissions' health effects. This difference further demonstrates that Congress did not intend to include utility boilers within the ambit of § 112(d)(1) – the statutory provision which was interpreted by the *National Lime* decision. Because *National Lime* interpreted a statutory provision that differs in material respects from § 112(n)(1)(A), its holding does not bind the Agency when it regulates utility boilers under § 112.

¹³ *Id.*

¹⁴ Section 112(e)(1) sets a schedule for EPA to promulgate emissions standards for source categories listed upon passage of the CAAA. EPA is to issue NESHAPs for 40, then 25%, 50% and 100% of such categories 2, 4, 7 and 10 years following November 15, 1990, respectively. With respect to source categories added after the initial listing, EPA is to promulgate emission standards under § 112(d) within 10 years of November 15, 1990 or within 2 years of such category listing, whichever comes later. § 112(c)(5).

C. EPA's Regulatory Finding Under § 112(n) Named Only Mercury As Posing A Risk To Public Health, So That The Necessary Factual Predicate Exists To Regulate Only These Emissions

In accordance with its statutory mandate, EPA issued its regulatory finding under § 112(n)(1)(A) on December 20, 2000. 65 Fed. Reg. 79825 (the "Regulatory Finding"). EPA's Regulatory Finding concluded that it is necessary and appropriate to regulate HAP emissions from utility boilers on a limited basis: due to hazards to public health attributable to emissions of mercury from coal-fired units.¹⁵ Although noting that a handful of other HAPs may pose a potential concern to public health,¹⁶ EPA based its regulatory finding exclusively on these concerns. Further, EPA noted that controls in place for criteria air pollutants are effective at controlling all non-mercury HAPs as well. EPA's Regulatory Finding therefore establishes the factual predicate for regulation under § 112(n)(1)(A) only for mercury emissions from coal-fired units.

EPA's Regulatory Finding concluded as follows:

[T]he Administrator has concluded that mercury is both a public health concern and a concern in the environment...Further, there remain uncertainties regarding the extent of the public health impact from HAP emissions from oil-fired electric utility steam generating units. Those facts and uncertainties lead the Administrator to find that regulation of HAP emissions from coal- and oil-fired electric utility steam generating units under section 112 is appropriate and necessary. It is appropriate to regulate HAP emissions from coal- and oil-fired electric utility steam generating units under section 112 of the CAA because, as documented in the utility RTC and stated above, electric utility steam generating units are the largest domestic source of mercury emissions, and mercury in the environment presents significant hazards to public health and the environment.¹⁷

In concluding that utility boilers should be regulated under § 112, the Agency made no findings as to the health risks posed by other HAPs. The Agency did, however, note that it believes a handful of HAPs warrant further evaluation in the course of the regulatory process:

¹⁵ 65 Fed. Reg. at 79828.

¹⁶ *Id.* at 79827.

¹⁷ *Id.* at 79828. Significantly, however, industry challenged EPA's regulatory determination on the grounds that the Agency had *not* shown that mercury emissions from coal-fired power plants present significant hazards to public health and the environment. That challenge was dismissed on ripeness grounds, with the D.C. Circuit noting that industry could raise its objections in the context of any challenge to the utility MACT rule ultimately promulgated by EPA.

With regard to the other HAP, arsenic and a few other metals (e.g., chromium, nickel, cadmium) are of potential concern for carcinogenic effects. Although the results of the risk assessment indicate that cancer risks are not high, they are not low enough to eliminate those metals as a potential concern for public health. Dioxins, hydrogen chloride, and hydrogen fluoride are three additional HAP that are of potential concern and may be evaluated further during the regulatory development process.

The other HAP studied in the risk assessment do not appear to be a concern for public health based on the available information.¹⁸

Having made no regulatory finding that these additional HAPs pose a risk to public health, nothing in the record or the CAA gives rise to a legal requirement for EPA to regulate these emissions. Further, the Agency acknowledged in the Regulatory Finding that “[r]ecent data show that the technologies used to control criteria pollutants (particulate matter (PM), nitrogen oxides (NO_x) and sulfur dioxide (SO₂)) are effective in controlling emissions of nearly all HAP except mercury.”¹⁹ As a result, EPA has no legal obligation to regulate under § 112 non-mercury HAP emissions from utility boilers.

D. Conclusion

We appreciate the opportunity to submit this white paper on the question of EPA’s obligation to regulate HAP emissions from utility boilers in the absence of a regulatory finding of risk. We believe that the plain meaning of the statute and its legislative history strongly support the view that EPA’s regulatory mandate is limited to only those HAP emissions for which the Agency made a Regulatory Determination.

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¹⁸ *Id.* at 79827.

¹⁹ *Id.* at 79827.