Nos. 14-46, 14-47 and 14-49

IN THE

Supreme Court of the United States

STATE OF MICHIGAN, ET AL., PETITIONERS
V.
ENVIRONMENTAL PROTECTION AGENCY, ET AL., RESPONDENTS

UTILITY AIR REGULATORY GROUP, PETITIONER
V.
ENVIRONMENTAL PROTECTION AGENCY, ET AL., RESPONDENTS

NATIONAL MINING ASSOCIATION, PETITIONER
V.
ENVIRONMENTAL PROTECTION AGENCY, ET AL., RESPONDENTS

On Writs of Certiorari to the United States
Court of Appeals for the District of Columbia Circuit

BRIEF OF UNION OF CONCERNED SCIENTISTS AS *AMICUS CURIAE* IN SUPPORT OF RESPONDENTS

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TABLE OF CONTENTS

Page

TABLE OF AUTHORITIES

Page(s)

CASES

STATUTES

ADMINISTRATIVE MATERIALS

LEGISLATIVE HISTORY

OTHER AUTHORITIES

INTEREST OF THE AMICUS CURIAE[1]

The Union of Concerned Scientists ("UCS"), an alliance of more than 450,000 citizens and scientists, is the leading U.S. non-profit organization dedicated to the use of science to foster a healthy environment and a safer world. UCS combines independent scientific research and citizen action to develop innovative and practical solutions to pressing environmental and security problems and to secure responsible changes in government policy, corporate practices, and consumer choices.

UCS has a particular interest in this case because it raises important questions about the role of science in establishing standards for protecting public health from the threats caused by hazardous air pollutants ("HAPs"), including mercury. UCS has long advocated for controls on hazardous air and water pollutants such as mercury to be based on the best available science, and a decision affirming the lower court would advance that fundamental goal. However, a decision reversing the lower court, and requiring the Environmental Protection Agency ("EPA") to consider cost as part of the "appropriate and necessary" determination about whether to regulate HAP emissions from the electric utility industry, would undermine the goal of science-based public health decision-making, expose the public to unac-

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[1] All counsel of record have consented to the filing of this brief and those consents are on file with the Clerk of the Court. No counsel for any party authored this brief either in whole or in part. No persons other than amicus or its counsel has made any monetary contribution to the preparation or submission of this brief.

ceptable threats from HAP pollution, and contravene the Clean Air Act. The Act explicitly requires cost to be taken into consideration in setting the standards applicable to the industry after EPA has first decided, based on the science, that it is "appropriate and necessary" to regulate the industry.

SUMMARY OF ARGUMENT

Paragraph 7412(n)(1) of the Clean Air Act ("CAA") and Title IV of the CAA were both enacted in 1990 and both apply exclusively to the electric utility industry. They bear a unique relationship to each other and must be considered together. Congress's instruction to EPA that the agency must regulate HAP emissions from electric utility steam generating units ("EGUs") if the agency determined that such regulation was "appropriate and necessary" based on scientific analysis and not on cost is informed by Title IV for the reasons articulated below.

During the enactment of the 1990 CAA amendments, Congress significantly revised section 7412 to expedite control of emissions of HAPs, which Congress had already determined pose serious threats to public health. The electric utility industry, however, urged Congress to delay application of section 7412 to its EGUs until EPA resolved three uncertainties regarding the application of the revised section 7412 to emissions from EGUs. First, the industry argued that the new Title IV acid rain control program might render section 7412 regulation of EGUs unnecessary because HAP emissions would be adequately addressed by this market-based program. Second, the industry contended that significant scientific uncertainty existed about the public health impacts

of HAP emissions from EGUs. Third, it asserted that mercury emissions are transported through the atmosphere on a global scale and that reductions in U.S. emissions would therefore be useless. None of these uncertainties related to the costs of controlling HAP emissions from EGUs.

In response to these uncertainties, Congress decided to delay application of section 7412 to HAP emissions from the electric utility industry while instructing EPA and the National Institute of Environmental Health Sciences ("NIEHS") to complete scientific studies. The statute plainly directs EPA to render a scientific judgment about whether to regulate the electric utility industry under section 7412 based on the results of one of these studies in particular, the one that analyzed the public health impacts of EGU HAP emissions remaining after the implementation of other parts of the CAA. 42 U.S.C. § 7412(n)(1)(A). As directed by the text of paragraph 7412(n)(1), EPA studied these issues, found that HAPs emitted from EGUs posed a substantial threat to public health, even after industry compliance with Title IV, and determined that regulation under section 7412 was therefore "appropriate and necessary." In doing so, EPA considered the factors Congress directed it to address. Congress directed that cost enter the calculation only later, at the stage of setting the standards that would apply to the industry under section 7412. *Id.* § 7412(d).

ARGUMENT

I. EPA's determination under paragraph 7412(n)(1) that regulation of EGU HAP

emissions was "appropriate and necessary" to protect public health was reasonable.

Paragraph 7412(n)(1) directed EPA to delay regulation of EGU HAP emissions pending scientific study of the public health impacts of those emissions remaining after implementation of Title IV of the 1990 CAA amendments. The delay provided in paragraph 7412(n)(1) reflected Congress's desire that EPA should determine whether the Title IV acid rain control program would, as industry claimed, have the co-benefit of adequately reducing EGU HAP emissions. The delay was also intended to address scientific uncertainty regarding the public health impacts of EGU emissions of HAPs and the air transport of mercury emissions in particular. By basing the "appropriate and necessary" finding on its determination that EGU HAP emissions continued to pose serious public health problems after the implementation of Title IV, EPA properly declined to address costs at this stage of the regulatory process.

A. Paragraph 7412(n)(1) was enacted to delay regulation of EGUs under section 7412 until EPA could assess the impact of the Title IV acid rain control program.

The 1990 amendments to section 7412 expressed Congress's determination that the emission of HAPs was a significant public health problem that had to be addressed immediately. Congress had first regulated HAPs under the 1970 Clean Air Act Amendments using a risk-based approach. Because, for many HAPs, there is no safe level of exposure, the risk-based approach led to regulatory paralysis, as

EPA declined to regulate HAPs for fear of shutting down entire industries. The Senate concluded that:

> The law has worked poorly. In 18 years, EPA has regulated only some sources of only seven chemicals. One reason the law has worked poorly is the standard of protection required. An ample margin of safety has been interpreted by many to mean zero exposure to carcinogens, because any amount of exposure may cause a cancer. EPA has not been willing to write standards so stringent because they would shutdown major segments of American industry.

S. Rep. No. 101-228, at 128 (1989) (internal quotation marks omitted), *reprinted* in 5 Env't & Natural Res. Div., Library of Cong., A Legislative History of the Clean Air Act Amendments of 1990, at 8338, 8468 (1993) [hereinafter "1990 CAA Leg. Hist."].

Thus, in 1990, Congress completely "restructured [section 7412] to provide EPA with authority to regulate industrial and area sources of categories of air pollution (rather than the pollutants) in the near term." *Id.* at 133. Congress did so by listing 189 HAPs in the statute itself, 42 U.S.C. § 7412(b)(1), and requiring EPA first to list sources of those emissions and then to establish emissions standards according to a strict timetable, *id.* § 7412(c)(1), (d)(1), (e). Congress also, however, delayed application of section 7412 to one source of HAPs emissions—the electric utility industry. In particular, subparagraph 7412(n)(1)(A) provides that:

> 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 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.

Id. § 7412(n)(1)(A). Subparagraphs 7412(n)(1)(B) and (C) required EPA and the NIEHS to conduct additional scientific studies on mercury emissions and the public health impacts of those emissions. *Id.* § 7412(n)(1)(B), (C).

Paragraph 7412(n)(1) was the product of a compromise. On the one hand, some members of Congress urged that EGUs should be regulated immediately, because it would be "inequitable to impose a regulatory regime on every industry in America and then exempt . . . a category like power plants which are a significant part of the air toxics problem." 136 Cong. Rec. 36,062 (1990) (Statement of Sen. Durenberger), *reprinted in* 1 1990 CAA Leg. Hist. at 871. On the other, some members questioned the need to regulate HAP emissions from EGUs. *See id.* at 11,903 (1990) (Statement of Rep. Bliley), *reprinted in* 2 1990 CAA Leg. Hist. at 2724 (asserting that "to require EPA to impose an additional layer of regulation on sources that EPA may determine will be

appropriately controlled by another regulatory program would yield no environmental benefits").

The compromise that emerged called for a "delay and study" approach. One purpose of the delay was to determine whether the electric utility industry would incidentally control HAP emissions from EGUs as a result of complying with Title IV. Indeed, the electric utility industry forcefully argued to Congress that the actions it would take to comply with Title IV could have the co-benefit of reducing HAP emissions. *See* p. 8, *infra*. Congress therefore drafted paragraph 7412(n)(1) to allow EPA time to assess the impact of the industry's compliance with Title IV before deciding whether listing under section 7412 was appropriate and necessary for EGUs.

Under Title IV, EGUs are subject to a market-based allowance-trading program for sulfur dioxide as well as strict controls on emissions of nitrogen dioxide. *See* Clean Air Act Amendments of 1990, tit. IV, Pub. L. No. 101–549, 104 Stat. 2399 (1990) (codified at 42 U.S.C. §§ 7651–7651o). In the trading program, an annual cap is set on the total amount of sulfur dioxide emissions allowed from EGUs. Emission "allowances" are then distributed among the regulated EGUs, and each EGU must turn in an allowance for every ton of sulfur dioxide it emits. EGUs that achieve additional emissions reductions may sell their surplus allowances, while EGUs that do not meet emission limits must buy the additional allowances necessary to cover the difference. Thus Title IV provided the electric utility industry with flexibility to choose the level of control and which

technologies or strategies to adopt and apply to individual EGUs.

The electric utility industry argued that compliance with Title IV could also help it substantially decrease emissions of HAPs, making the simultaneous imposition of section 7412 "excessive and unnecessary." *See* 136 Cong. Rec. 35,075 (1990) (Statement of Rep. Oxley), *reprinted in* 1 1990 CAA Leg. Hist. at 1416 (expressing the belief that regulation of EGUs under other new CAA "programs will result in substantial reductions in emissions of conventional and potentially hazardous air pollutants").[2] Congress therefore directed EPA to delay listing EGUs under section 7412 in order to provide the industry an opportunity to deal with HAP emissions through actions that it would take to comply with the acid

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[2] At the time, it was understood that potential strategies for complying with Title IV included the use of scrubbers and switching to low-sulfur coal. Scrubbers would have the co-benefit of removing some HAPs, while fuel switching would not. *See* Alice Kaswan, *Climate Change, the Clean Air Act, and Industrial Pollution*, 30 UCLA J. Envtl. L. & Pol'y 51, 112 (2012) (describing how switching to low-sulfur coal reduces sulfur emissions but does not necessarily reduce emissions of other pollutants such as particulates and mercury). In 1990, many people believed that installing scrubbers would be the less costly, and therefore more the widely adopted, approach to complying with Title IV. *See* Byron Swift, *How Environmental Laws Work: An Analysis of the Utility Sector's Response to Regulation of Nitrogen Oxides and Sulfur Dioxide under the Clean Air Act*, 14 Tul. Envtl. L.J. 309, 330 (2001) (describing the "initial expectation[]" that scrubbing was the less costly of the two principal compliance methods). In the end, most utilities chose to comply with Title IV through fuel switching or buying emissions allowances. *See* p. 13, *infra*.

rain control program. However, the statute directed EPA to regulate EGUs like any other source category under section 7412, if EPA determined that Title IV and other provisions of the CAA did not adequately address the public health impacts of EGU HAP emissions.

B. Congress enacted paragraph 7412(n)(1) against the backdrop of scientific uncertainty regarding both the public health impacts and air transport of mercury emitted by EGUs.

Apart from the question whether Title IV compliance would reduce HAP emissions from EGUs, the electric utility industry and its allies in Congress argued that a "delay and study" approach was necessary due to scientific uncertainty regarding the air transport of mercury emissions and the impact of those emissions on public health. For instance, Representative Oxley asserted that "[t]he conferees agreed to the House provisions because of the logic of basing any decision to regulate on the results of scientific study." 136 Cong. Rec. 35,075 (1990) (Statement of Rep. Oxley), *reprinted in* 1 1990 CAA Leg. Hist. at 1416; *see also id.* at 3498 (Statement of Sen. Symms), *reprinted in* 4 1990 CAA Leg. Hist. at 5241 (stating that such an approach "wisely incorporated a thorough scientific review of the possible health benefit from the utility powerplant regulation for air toxics prior to the imposition of any regulations").

In the Senate, the electric utility industry therefore lobbied for an amendment to section 7412 known as the Heflin amendment, which required the com-

pletion of scientific studies by EPA and NIEHS to determine whether emissions of mercury and other HAPs from EGUs posed a significant public health risk. *Senate Tackles Long List of Clean Air Amendments, But Not Acid Rain*, Electric Utility Week, Mar. 26, 1990, at 17 (documenting electric utility industry groups petitioning for the Heflin amendment); *see also* 136 Cong. Rec. 6435 (1990), *reprinted in* 4 1990 CAA Leg. Hist. at 7139–40 (text of the Heflin amendment). Representatives of the electric utility industry expressed satisfaction with the resulting "delay and study" approach. *See Utilities Fear Senate Clean Air Mandate for Air-Toxic Controls*, Electric Utility Week, Jan. 22, 1990, at 9 (quoting a representative of Southern Company Services as saying that a "three-year study is acceptable to utilities because, if it does show a need for some controls, they will be imposed on a foundation of research").

The electric utility industry also argued that it was unclear whether mercury emissions from EGUs deposited locally or globally. If it were the latter, then strict regulation of domestic sources might not significantly improve public health.

> First, [the electric utility industry] argued that mercury isn't much of an environmental problem. But as the evidence mounted over the summer and it became clear that mercury is a substantial threat to the health of our lakes, rivers and estuaries and that powerplants are among the principal culprits, they changed their tactic. Now they are arguing that mercury is a global problem so se-

> vere that just cleaning up U.S. powerplants won't make enough of a difference to be worth it. They've gone from "we're not a problem" to "you can't regulate us until you address the whole global problem."

136 Cong. Rec. 36,062 (1990) (statement of Sen. Durenberger), *reprinted in* 1 1990 CAA Leg. Hist. at 871.

In response to these questions, Congress ordered EPA to study the hazards to public health from HAPs, including mercury, emitted from EGUs, after the imposition of controls under Title IV and other parts of the CAA. *See* 42 U.S.C. § 7412(n)(1)(A). If EPA concluded, based on the study, that regulation was "appropriate and necessary," then, Congress ordered, the agency "shall regulate [EGUs] under this section." *Id.* EPA's task was an essentially scientific one, based on addressing the three types of uncertainties identified above. The costs of regulation played no role at this stage of the regulatory process.

C. EPA appropriately declined to take cost into account when deciding whether to regulate the electric utility industry under section 7412, but properly considered costs in setting the regulatory standards.

EPA completed the scientific studies mandated by paragraph 7412(n)(1) by 1998. *See* EPA, *Study of Hazardous Air Pollutant Emissions from Electric Utility Steam Generating Units – Final Report to Congress* (Feb. 1998) [hereinafter "*Utility Study*"];

EPA, *Mercury Study Report to Congress* (Dec. 1997) [hereinafter "*Mercury Study*"].[3] These studies conclusively demonstrated that the electric utility industry failed to reduce its mercury emissions by compliance with Title IV and that mercury and other HAP emissions from EGUs continued to pose a serious public health threat that could be managed by U.S. regulation. Hence, in 2000, EPA found it "appropriate and necessary" to regulate EGU HAP emissions under section 7412.

The studies dispelled any notion that regulation of EGUs under the acid rain control program had eliminated or would eliminate public health problems from EGU HAP emissions. Even though it was widely understood in the early 1990s that regulation of EGUs under section 7412 was impending if Title IV compliance failed to reduce HAP emissions from EGUs, *see, e.g., Utilities Advised to "Think Toxics" when Deciding Acid Rain Strategies*, Utility Environment Report, Nov. 15, 1991 at 3, the electric utili-

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[3] Excerpts from the Utility Study and Mercury Study are reproduced in the Joint Appendix. The full Utility Study is available at http://www.epa.gov/ttn/atw/combust/utiltox/eurtc1.pdf and the Mercury Study is available at http://www.epa.gov/mercury/report.htm. The delays in completing the studies were due to both the complexity of the issues, *see EPA Extends Study of Power Plant Generated Toxics*, 18 Coal Week, no. 21, at 8 (May 25, 1992) (attributing the delays to "the sheer complexity of the matter), and intense lobbying from the electric utility industry, *see After Intense Industry Lobbying EPA Officials Seek Indefinite Delay of Controversial Mercury Study*, Inside EPA's Clean Air Report, Apr. 5, 1996, at 1 (describing the "fierce lobbying effort by industry officials to delay releasing the [mercury] report").

ty industry nonetheless chose compliance strategies under Title IV that did not reduce HAP emissions. In particular, 80% of units regulated under Phase I of Title IV either switched to low-sulfur coal or purchased additional emission allowances, *see* JA 117–19, neither of which reduce HAP emissions.

Further, the Utility Study projected that, even taking into account Title IV compliance methods, HAP emissions from EGUs were "predicted to increase 10 to 30 percent by the year 2010." JA 106. Thus, in 2000 EPA concluded in its appropriate and necessary finding that "the implementation of other requirements under the CAA [would] not adequately address the serious public health and environmental hazards arising from [EGU HAP] emissions." EPA, Regulatory Finding on the Emissions of Hazardous Air Pollutants from Electric Utility Steam Generating Units [hereinafter "*Appropriate and Necessary Finding*"], 65 Fed. Reg. 79,830 (Dec. 20, 2000).

The studies also confirmed that mercury emissions from EGUs do pose a significant threat to public health, leading EPA to find in the appropriate and necessary finding that "the available information indicate[d] that mercury emissions from electric utility steam generating units comprise a substantial portion of the environmental loadings and are a threat to public health." *Id.* at 79,827. Moreover, the Mercury Study required by 112(n)(1)(B) rejected the idea that mercury emissions are exclusively a global problem, instead finding that the majority of domestic mercury deposition comes from domestic rather than foreign sources. JA 29 (noting that, of the 87 tons of anthropogenic mercury deposited in

the United States annually, 52 tons are from domestic sources and 35 tons are from foreign sources). Additionally, the appropriate and necessary finding explained that "60 percent of the total mercury deposited in the U.S. comes from U.S. anthropogenic air emission sources" and EGUs constituted "30 percent of current U.S. anthropogenic emissions." *Appropriate and Necessary Finding*, 65 Fed. Reg. at 79,827.[4]

EPA's finding of "appropriateness" of regulating EGUs under paragraph 7412(n)(1) was properly made on the basis of the scientific studies without regard to cost. Cost would be taken into account at the next stage under subsection 7412(d).

II. The structure and language of the CAA plainly dictate that the 7412(n) finding should be based on a scientific determination of public health impacts, not cost.

The word "appropriate" is "inherently context-dependent," *Sossamon v. Texas*, 131 S. Ct. 1651, 1659 (2011), and thus it must be interpreted with the surrounding language in mind. Subparagraph 7412(n)(1)(A) clearly instructs EPA to make the "appropriate and necessary" finding "*after considering the results of the study* required by th[at] subparagraph." 42 U.S.C. § 7412(n)(1)(A) (emphasis add-

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[4] Subsequent studies confirmed this finding. For example, one paper found that approximately 70 percent of mercury collected at a monitoring station in Steubenville, Ohio was attributable to deposition from several local upwind coal plants. Gerald J. Keeler et al., S*ources of Mercury Wet Deposition in Eastern Ohio, USA*, 40 Envtl. Sci. & Tech. 5874 (2006). EPA relied on this information in issuing the regulations challenged in this case. 77 Fed. Reg. 9304, 9339 & n.92 (Feb. 16, 2012).

ed). The referenced study is limited in scope to the "hazards to public health reasonably anticipated to occur as a result of emissions" of HAPs by EGUs after the imposition of the other requirements of the CAA. *Id.*

Congress's instructions to EPA are thus clear: the appropriate and necessary finding must be based on a scientific understanding of the public health impacts; costs are not a relevant factor. Cost is a factor "both so indirectly related to public health and so full of potential for canceling the conclusions drawn from direct health effects" that when there exists a mandate to regulate based on public health impacts, there must be a "textual commitment" require cost to be a consideration. *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 468–69 (2001). No such commitment by Congress is present in paragraph 7412(n)(1). EPA's decision to regulate EGU HAP emissions was to be based on science, not cost.

The statutory structure further supports the understanding that Congress intended for EPA to make a scientific judgment regarding public health under paragraph 7412(n)(1). In regulating EGUs under section 7412, EPA must undertake a two-step process. First, it must make the "appropriate and necessary" finding, which requires EPA to decide *whether* to regulate EGU HAP emissions. Second, after listing EGUs under subsection 112(c), EPA must decide *how stringently* to regulate such emissions by establishing MACT under subsection 7412(d). Such a two-step process—first deciding whether to regulate and then establishing emissions standards—is typical under the CAA. *See, e.g.*, 42

U.S.C. § 7408(a)(1)(A) (listing of criteria pollutants before setting NAAQS); *id.* § 7411(b)(1)(A) (listing of stationary source categories before setting new source performance standards for each category); *id.* § 7521(a)(1) (endangerment finding before setting emission standards for mobile sources).

As even petitioners recognize, under the Clean Air Act, Congress has repeatedly mandated that cost considerations only play a role in the second, standard-setting stage. *See* Brief for Petitioners UARG 27 (citing *Coal. for Responsible Regulation v. EPA*, 684 F.3d 102, 118 (D.C. Cir. 2012) (*per curiam*), *aff'd in part & rev'd in part*, *Util. Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427 (2014)); *see also Coal. for Responsible Regulation*, 684 F.3d at 118 ("To be sure, the subsection following § 202(a)(1), § 202(a)(2), requires that EPA address limited questions about the cost of compliance with new emission standards and the availability of technology for meeting those standards, but these judgments are not part of the § 202(a)(1) endangerment inquiry.") (citation omitted). The reason for this structure is to ensure that the first stage, the decision to regulate, is made on a purely scientific basis. *See Coal. for Responsible Regulation*, 684 F.3d at 117–18 ("These questions require a 'scientific judgment' about the potential risks greenhouse gas emissions post to public health or welfare—not policy discussions."). Thus the statutory structure chosen by Congress is congruous with its intention that EPA confirm the public health impacts of EGU HAP emissions before proceeding to regulate them under section 7412.

III. The legislative history and contemporaneous understanding of the 1990 Amendments to the CAA confirm that EPA was supposed to base the finding on scientific study, not costs.

A. The drafting process of paragraph 7412(n)(1) reflects Congress's focus on public health impacts rather than on cost as the basis for applying section 7412 to EGUs.

Although Congress was well aware at the time of the 1990 CAA Amendments that EGUs were a significant source of several HAPs—including mercury and other metal toxics—there was disagreement in Congress regarding when and how EGU HAP emissions should be regulated. In particular, the Senate and the House passed different versions of the provision that became paragraph 7412(n)(1). The Senate bill required three studies—an EPA study on particulate emissions, an EPA study on mercury emissions, and a NIEHS study to "determine the threshold level of mercury"—and mandated that emissions standards for mercury and particulates be promulgated no later than five years after the passage of the amendments. S. 1630, 101st Cong. § 301 (as passed by Senate, Apr. 3, 1990), *reprinted in* 3 1990 CAA Leg. Hist. at 4119, 4432–34. The House bill provided for a study of all HAP emissions from utilities and made regulation contingent on an "appropriate and necessary" finding. S. 1630, 101st Cong. § 301 (as passed by House, May 23, 1990),

reprinted in 2 1990 CAA Leg. Hist. at 1809, 2148–49.[5]

The final version that emerged from the conference committee reflected a compromise between the Senate and House versions. It generally adopted the House's approach of delaying listing until EPA had a chance to study the issue. *See* 42 U.S.C. § 7412(n)(1)(A). It also included the Senate's mercury study and the NIEHS study. *See id.* 7412(n)(1)(B)–(C). However, whereas the Senate bill would have required EPA to consider the results of all three studies before setting the standards for EGU HAP emissions, the enacted version mandates only that EPA consider the results of the public health study in making the appropriate and necessary finding. *See id.* § 7412(n)(1)(A); *see also* S. 1360, 101st Cong. § 301 (as passed by Senate, Apr. 3, 1990), *reprinted in* 4 1990 CAA Leg. Hist. at 4433–34 ("The studies required by subparagraphs (A), (B), and (C) shall be placed in the relevant docket for any rulemaking that would establish emissions standards under subsection (d) for particulates or mercury from electric utility steam generating units and shall be considered by the Administrator, along with other public

[5] Even the revision process in the House reflected the urgency of regulating HAP emissions. The version of section 7412 in H.R. 3030, as introduced, prohibited EPA from regulating power plants unless it found regulation appropriate and necessary, H.R. 3030, 101st Cong. § 301 (July 27, 1989), *reprinted in* 2 1990 CAA Leg. Hist. at 3737, 3945–46; the version that passed the House, in contrast, "*required* EPA to regulate power plants if it so found." S. 1630, 101st Cong. § 301 (as passed by House, May 23, 1990), *reprinted in* 2 1990 CAA Leg. Hist. at 1809, 2148–49 (emphasis added).

comments, before any such standard is promulgated.").

The enacted compromise further demonstrates that while Congress ultimately chose the House bill's "delay and study" approach, concerns about the cost of regulating EGU HAP emissions were not the motivation behind this decision.

B. Contemporaneous statements in the media and from the electric utility industry reflect the understanding that EPA's "appropriate and necessary" finding was to be based on the results of scientific studies, not cost.

When, in 1991, EPA proposed its initial list of source categories under section 7412, it requested public comment on whether it should include EGUs in the list. 56 Fed. Reg. 28,548, 28,550–51 (June 21, 1991). Representatives of the electric utility industry, including petitioner Utility Air Regulatory Group ("UARG"), strenuously objected to the immediate listing of EGUs. Such listing would be inappropriate, they argued, because EPA must base its decision to list EGUs on the results of the public health study required under paragraph 7412(n)(1). For example, UARG commented that "Congress has decided that regulation of [EGUs] should *turn on the results of EPA's study*." Comments of the Utility Air Regulatory Group, Docket No. A-90-49, at 3 (July 22, 1991) (emphasis added); *see also* Comments of Edison Electric Institute, Docket No. A-90-49, at 1 (July 19, 1991) ("Following issuance of the study, EPA will determine if any further controls on [EGUs] will be needed to protect public health."). These comments

also recognized that Congress delayed regulation of EGUs under section 7412 to allow time to see whether Title IV addressed the problem. Thus UARG argued that "[n]on-utility boilers, unlike [EGUs], are not subject to the kind of [CAA] regulatory programs that could make § 112 regulation unnecessary." Comments of the Utility Air Regulatory Group, *supra*, at 5.

As one article in an important electric industry journal put it:

> One important factor is that the EPA was directed by the CAA's Title III to undertake a study of hazards to public health posed by 189 pollutants. EPA must report the results of this study by November 1993. *Those results will dictate whether power plant emissions should come under regulation.*

R.C. Rittenhouse, *Action Builds on the Road to CAA Compliance*, Power Engineering, June 1, 1992, at 43 (emphasis added). The director of clean air, fossil fuels, and natural resources at the Edison Electric Institute (a major electric utility industry trade group) explained that "the industry agreed with Congress during debate on the issue to abide by the decision of EPA following completion of the agency's study of utility toxic emissions." *Draft Report Calls for Regulation of Utility Air Toxics*, Electric Utility Week, Aug. 26, 1991, at 6 (quoting the director as saying, "We have to have more data, and after the studies are conducted, we will live with what is decided. . . . We are aware that there is a risk that we will be regulated."); *see also* Winston Chow et al., *Managing Air Toxics under New Clean Air Act*

Amendments: Pollution Control for Electric Power Plants, Power Engineering, Jan. 1, 1991, at 35 ("Under the new amendments, the EPA will conduct a three-year study of the public health hazards from exposure to toxic emissions from utilities and report to Congress. EPA can regulate such emissions only if the regulations are appropriate based on this study.").

As these comments and articles reflect, it was well understood in the aftermath of the 1990 CAA Amendments that EPA's "appropriate and necessary" determination was to be based on resolving uncertainties about the impacts of Title IV on EGU HAP emissions and about the impacts of those emissions on public health. EPA's decision to apply section 7412 to EGUs based on these considerations, and not on cost, was reasonable.

CONCLUSION

For the foregoing reasons, the judgment of the court of appeals should be affirmed.

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