No. _____

In the Supreme Court of the United States

STATE OF MICHIGAN, ET AL., PETITIONERS

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

ON PETITION FOR A WRIT OF CERTIORARI
TO THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

PETITION APPENDIX

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United States Court of Appeals
FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued December 10, 2013 Decided April 15, 2014

No. 12-1100
WHITE STALLION ENERGY CENTER, LLC,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

AMERICAN ACADEMY OF PEDIATRICS, ET AL.,
INTERVENORS

Consolidated with 12-1101, 12-1102, 12-1147, 12-1172, 12-1173, 12-1174, 12-1175, 12-1176, 12-1177, 12-1178, 12-1180, 12-1181, 12-1182, 12-1183, 12-1184, 12-1185, 12-1186, 12-1187, 12-1188, 12-1189, 12-1190, 12-1191, 12-1192, 12-1193, 12-1194, 12-1195, 12-1196

On Petitions for Review of Final Rule of the
United States Environmental Protection Agency

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Sanjay Narayan and *Eric Schaeffer* argued the causes for Environmental Petitioners. With them on the briefs were *Whitney Farrell*, *James S. Pew*, *Neil Gormley*, *Ann Brewster Weeks*, and *Darin Schroeder*.

David Bookbinder argued the cause and filed the briefs for petitioner Julander Energy Company.

Michael B. Wigmore, *Sandra P. Franco*, *Robin S. Conrad*, *Rachel Brand*, and *Sheldon Gilbert* were on the brief for *amicus curiae* The Chamber of Commerce of the United States of America in support of Industry Petitioners.

Eric G. Hostetler, *Matthew R. Oakes*, and *Amanda S. Berman*, Attorneys, U.S. Department of Justice, argued the causes for respondent. With them on the brief was *Wendy L. Blake*, Attorney, U.S. Environmental Protection Agency.

Melissa Hoffer, Assistant Attorney General, Office of the Attorney General for the Commonwealth of Massachusetts, argued the cause for State and Local Government Intervenors in support of Respondent. With her on the brief were *Martha Coakley*, Attorney General, Office of the Attorney General for the State of Massachusetts, *Tracy Triplett* and *Carol A. Iancu*, Assistant Attorneys General, *Kamala D. Harris*, Attorney General, Office of the Attorney General for the State of California, *Janill L. Richards*, Supervising Deputy Attorney General, *Susan L. Durbin,* Deputy Attorney General, *Joseph R. Biden*, *III*, Attorney General, Office of the Attorney General for the State of Delaware, *Valerie M. Satterfield*, Deputy Attorney General, *Thomas L. Miller*, Attorney General, Office of the Attorney General for the State of Iowa, *David R. Sheridan*, Assistant Attorney General, *George Jepsen*, Attorney General, Office of the Attorney General for the State of Connecticut, *Kimberly P. Massicotte* and *Matthew I. Levine*, Assistant Attorneys General, *Lisa Madigan*, Attorney General, Office of the Attorney General for the State of Illinois, *Matthew J. Dunn* and *Gerald T. Karr*, Assistant Attorneys General, *Douglas F. Gansler*, Attorney General, Office of the Attorney General for the State of Maryland, *Roberta R. James*, Assistant Attorney General, *Michael A. Delaney*, Attorney General, Office of the Attorney General for the State of New Hampshire, *K. Allen Brooks*, Senior Assistant Attorney General, *Janet T. Mills*, Attorney General, Office of the Attorney General for the State of Maine, *Gerald D. Reid*, Assistant Attorney General, *Lori Swanson*, Attorney General, Office of the Attorney General for the State of Minnesota, *Max Kieley*,

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Brendan K. Collins argued the cause for Industry Respondent Intervenors. With him on the brief were *Robert B. McKinstry Jr.*, *Lorene L. Boudreau*, and *Erik S. Jaffe.*

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Peter S. Glaser, *George Y. Sugiyama*, *Hahnah Williams*, *F. William Brownell*, *Lauren E. Freeman*, *Lee B. Zeugin*, *Elizabeth L. Horner*, *Jeremy C. Marwell*, *Eric A. Groton*, *Jeffrey R. Holmstead*, *Sandra Y. Snyder*, *Bill Cobb*, *Michael Nasi*, *David B. Rivkin Jr.*, *Lee A. Casey*, *Mark W. DeLaquil*, and *Andrew M. Grossman* were on the brief for Intervenor Respondents in Opposition to Brief of Petitioner Julander Energy Company.

Wendy B. Jacobs, *Adam Babich*, and *Michael A. Livermore* were on the brief for *amici curiae* Institute for Policy Integrity, et al. in support of respondent.

Before: GARLAND, *Chief Judge*, and ROGERS and KAVANAUGH, *Circuit Judges*.

PER CURIAM:* In 2012, the Environmental Protection Agency promulgated emission standards for a number of listed hazardous air pollutants emitted by coal- and oil-fired electric utility steam generating units. *See National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial- Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units*, Final Rule, 77 Fed. Reg. 9304 (Feb. 16, 2012). In this complex case, we address the challenges to the Final Rule by State, Industry, and Labor petitioners, by Industry petitioners to specific aspects of the Final Rule, by Environmental petitioners, and by Julander Energy Company. For the following reasons, we deny the petitions challenging the Final Rule.

I.

In 1970, Congress enacted § 112 of the Clean Air Act, Pub. L. No. 91-604, § 4(a), 84 Stat. 1676, 1685 (1970), to reduce hazardous air pollutants ("HAPs"). *See Sierra Club v. EPA*, 353 F.3d 976, 979 (D.C. Cir. 2004); H. R. REP.NO. 101-490, at 150 (1990). The statute defined HAPs as "air pollutant[s] . . . which in the judgment of the Administrator [of the Environmental Protection Agency ("EPA")] cause, or contribute to, air pollution which may reasonably be anticipated to result in an increase in mortality or an

* Parts I, II, and IV are written by Judge Rogers. Part III is written by Judge Kavanaugh, as are his dissenting opinion in Part II.B.2 and his concurring opinion in Part IV.

increase in serious irreversible, or incapacitating reversible, illness." § 112(a)(1), 84 Stat. at 1685. In its original form, § 112 required EPA to publish a list containing "each hazardous air pollutant for which [it] intends to establish an emission standard." § 112(b)(1)(A), 84 Stat. at 685. EPA then was to promulgate, within 360 days, emission standards "provid[ing] an ample margin of safety to protect the public health" for each listed HAP, unless EPA found that a particular listed substance was in fact not hazardous. § 112(b)(1)(B), 84 Stat. at 1685. Over the next eighteen years, EPA listed only eight HAPs, established standards for only seven, and as to these seven addressed only a limited selection of possible pollution sources. *See New Jersey v. EPA*, 517 F.3d 574, 578 (D.C. Cir. 2008); S. REP. NO. 101-228, at 131 (1989).

To remedy the slow pace of EPA's regulation of HAPs, Congress amended the Clean Air Act in 1990, *see* Pub. L. No. 101-549, 104 Stat. 2531 (1990) ("CAA"), by eliminating much of EPA's discretion in the process. *See New Jersey*, 517 F.3d at 578. In the amended § 112, Congress itself listed 189 HAPs that were to be regulated, *see* CAA § 112(b), 42 U.S.C. § 7412(b), and directed EPA to publish a list of "categories and subcategories" of "major sources" and certain "area sources" that emit these pollutants, CAA § 112(c), 42 U.S.C. § 7412(c). Once listed, a source category may only be delisted (with one exception not relevant here) if EPA determines that "no source" in that category emits HAPs in quantities exceeding specified thresholds. CAA § 112(c)(9)(B), 42 U.S.C. § 7412(c)(9)(B). For each listed "category or subcategory of major sources and

area sources" of HAPs, EPA must promulgate emission standards. CAA § 112(d)(1), 42 U.S.C. § 7412(d)(1). Section 112(d) provides, as relevant, that emission standards

> shall require the *maximum degree of reduction in emissions* of the hazardous air pollutants subject to this section (including a prohibition on such emissions, where achievable) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable[.]

CAA § 112(d)(2), 42 U.S.C. § 7412(d)(2) (emphasis added). For existing sources, these "maximum achievable control technology" ("MACT") standards may not be less stringent — regardless of cost or other considerations — "than [] the average emission limitation achieved by the best performing [] sources" in the relevant category or subcategory. CAA § 112(d)(3)(A)–(B), 42 U.S.C. § 7412(d)(3)(A)–(B); *see Nat'l Lime Ass'n v. EPA*, 233 F.3d 625, 629 (D.C. Cir. 2000). EPA refers to minimum-stringency MACT standards as "floors." Standards more stringent than the floors, determined pursuant to § 112(d)(2), are called "beyond-the-floor" limits.

For electric utility steam generating units ("EGUs"), however, Congress directed that prior to any listing EPA conduct a study of "the *hazards to public health* reasonably anticipated to occur as a result of [EGU HAP emissions] after imposition of the requirements of this Chapter [i.e., Chapter 85

Air Pollution Prevention and Control]." CAA § 112(n)(1)(A), 42 U.S.C. § 7412(n)(1)(A) (emphasis added). The results of this "Utility Study" were to be reported to Congress within three years. *Id.* Further, Congress directed that:

> The Administrator shall regulate [EGUs] 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. (emphasis added). Congress also directed EPA to conduct two other studies on mercury emissions: the "Mercury Study" on "the rate and mass of such emissions, the health and environmental effects of such emissions, technologies which are available to control such emissions, and the costs of such technologies," to be reported to Congress in four years, and the National Institute of Environmental Health Sciences "study to determine the threshold level of mercury exposure below which adverse human health effects are not expected to occur," to be reported to Congress in three years. *See* CAA § 112(n)(1)(A)–(C), 42 U.S.C. § 7412(n)(1)(A)–(C).

In December 2000, on the basis of the Utility Study and other data subsequently gathered, EPA issued a notice of regulatory finding "that regulation of HAP emissions from coaland oil-fired electric utility steam generating units under section 112 of the CAA is appropriate and necessary." *Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units*, 65 Fed. Reg. 79,825, 79,826 (Dec. 20, 2000) ("2000 Finding"). EPA found that EGUs "are the

largest source of mercury emissions in the U.S." and that "[m]ercury is highly toxic, persistent, and bioaccumulates in food chains." 65 Fed. Reg. at 79,827. Specifically, "[m]ercury emitted from [EGUs] . . . is transported through the atmosphere and eventually deposits onto land or water bodies" where it then changes into "a highly toxic" substance called methylmercury. *Id.* Methylmercury "biomagnifies in the aquatic food chain," *id.*, meaning that it becomes concentrated in the bodies of predatory fish which absorb the methylmercury their food sources contained. When humans eat these contaminated fish, they also are exposed; the methylmercury from the fish is absorbed into the bloodstream and "distributed to all tissues including the brain." *Id.* at 79,829. The risks are greatest for women of childbearing age, EPA explained, because methylmercury "readily passes . . . to the fetus and fetal brain," *id.*, and "the developing fetus is most sensitive to the effects of methylmercury," *id.* at 79,827. Children born to women who were exposed to methylmercury during pregnancy have exhibited neurological abnormalities and developmental delays. *Id.* at 79,829.

EPA concluded that "the available information indicate[d] that mercury emissions from [EGUs] . . . are a threat to public health and the environment," notwithstanding "uncertainties regarding the *extent* of the risks due to electric utility mercury emissions." *Id.* (emphasis added). EPA also identified several other metal and acid gas emissions from EGUs that were "of potential concern," namely arsenic, chromium, nickel, cadmium, dioxins, hydrogen chloride, and hydrogen fluoride. *Id.* EPA therefore

determined that it was "appropriate" to regulate coaland oil-fired EGUs under § 112 because of the health and environmental hazards posed by mercury emissions from EGUs, and the availability of a number of control options to effectively reduce such emissions. *Id.* at 79,830. EPA further determined that it was "necessary" to regulate EGUs under § 112 because implementation of other provisions of the CAA would "not adequately address" the public health and environmental hazards found. *Id.* Therefore, EPA added "coal- and oil-fired electric utility steam generating units to the list of source categories under section 112(c) of the CAA." *Id.*

In 2005, EPA reversed its 2000 Finding and removed coaland oil-fired EGUs from the list of source categories under § 112(c). *See Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units and the Removal of Coal- and Oil-Fired Electric Utility Steam Generating Units From the Section 112(c) List*, 70 Fed. Reg. 15,994, 15,994 (Mar. 29, 2005) ("2005 Delisting Decision"). This change was based on EPA's revised interpretation of § 112(n)(1)(A) and, to some extent, on a revised assessment of the results of the Utility Study. EPA concluded that it lacked authority under § 112(n)(1)(A) to regulate on the basis of non-health hazards (e.g., environmental harms), and should "focus solely" on the health effects directly attributable to EGU emissions, rather than on EGUs' contribution to overall pollutant levels. *Id.* at 15,998. Further, EPA decided it could consider other relevant, "situation-specific factors, including cost" that may affect whether regulation under § 112 is

"appropriate." *Id.* at 16,000–01. Critically, EPA determined that it must make its "appropriate and necessary" finding by reference to health hazards that will remain *"after* imposition of the requirements of" the CAA. *Id.* at 15,998 (emphasis added) (quoting CAA § 112(n)(1)(A), 42 U.S.C. § 7412(n)(1)(A)). EPA interpreted these other "requirements" to include "not only those requirements already imposed and in effect, but also those requirements that EPA reasonably anticipates will be implemented" and which "could either directly or indirectly result in reductions of utility HAP emissions." *Id.* at 15,999. Concluding that regulation under other provisions of the CAA would adequately address EGU emissions of mercury and other HAPs, EPA determined that regulation under § 112 was neither "appropriate" nor "necessary." *Id.* at 16,002–08. In responding to comments, EPA stated that if it *were* to regulate EGU emissions, then it would regulate *only* those substances for which it had made a specific "appropriate and necessary" determination. States and other groups petitioned for review and this court vacated the 2005 Listing Decision, *New Jersey*, 517 F.3d at 583, holding that EPA's attempt to reverse its December 2000 listing decision was unlawful because Congress had "unambiguously limit[ed] EPA's discretion to remove sources, including EGUs, from the section 112(c)(1) list once they have been added to it."

In 2012, after notice and comment, EPA "confirm[ed]" its 2000 Finding that regulation of EGU emissions under § 112 is "appropriate and necessary." Final Rule, 77 Fed. Reg. 9304, 9310–11. In the proposed rule, EPA stated that "the December

2000 Finding was valid at the time it was made based on the information available to the Agency at that time." Proposed Rule, 76 Fed. Reg. 24,976, 24,986, 24,994–97 (May 3, 2011) ("NPRM"). Although of the view that no further evidence was required to affirm the 2000 Finding, EPA had conducted additional quantitative and qualitative analyses "confirm[ing] that it remains appropriate and necessary today to regulate EGUs under CAA section 112." *Id.* at 24,986; *see id.* at 24,999–25,020. With respect to the term "appropriate," EPA explained that it was "chang[ing] the position taken in 2005 that the appropriate finding could not be based on environmental effects alone"; "revisiting the 2005 interpretation that required the Agency to consider HAP emissions from EGUs without considering the cumulative impacts of all sources of HAP emissions"; "revising the 2005 interpretation that required the Agency to evaluate the hazards to public health after imposition of the requirements of the CAA"; and "rejecting the 2005 interpretation that authorizes the Agency to consider other factors (*e.g.*, cost), even if the agency determines that HAP emitted by EGUs pose a hazard to public health (or the environment)." *Id.* at 24,989. With respect to the term "necessary," EPA rejected as "unreasonable" its interpretation in 2005 that regulation under § 112 was "necessary" only if *no* other provision in the CAA — whether implemented or only anticipated — could "directly or indirectly" reduce HAP emissions to acceptable levels. *Id.* at 24,992.

EPA explained that it interpreted § 112(n)(1)(A)

> to require the Agency to find it *appropriate* to regulate EGUs under CAA section 112 if the Agency determines that the emissions of one or more HAP emitted from EGUs pose an identified or potential hazard to public health or the environment at the time the finding is made. If the Agency finds that it is *appropriate* to regulate, it must find it *necessary* to regulate EGUs under section 112 if the identified or potential hazards to public health or the environment will not be adequately addressed by the imposition of the requirements of the CAA. Moreover, it may be *necessary* to regulate utilities under section 112 for a number of other reasons, including, for example, that section 112 standards will assure permanent reductions in EGU HAP emissions, which cannot be assured based on other requirements of the CAA.

Id. at 24,987–88. EPA also affirmed that coal- and oil-fired EGUs were properly listed as a source category under § 112(c). *See id.* at 24,986. EPA adhered to these interpretations in the Final Rule, 77 Fed. Reg. at 9311. Accordingly, on February 16, 2012, EPA promulgated emission standards for a number of listed HAPs emitted by coal- and oil-fired EGUs. *See id.* at 9487–93.

Several petitions for review challenge the Final Rule. We first address, in Part II, the challenges of the State, Industry, and Labor petitioners. In Part III, we address Industry petitioners' specific issues.

In Part IV.A, we address the challenges by the Environmental petitioners, and in Part IV.B, Julander Energy Company's standing. In addressing the substantive challenges to the Final Rule, this court must determine under the CAA whether the Final Rule was promulgated in a manner that was arbitrary or capricious, an abuse of discretion, or otherwise not in accordance with law. *See* CAA § 307(d)(9)(A), 42 U.S.C. § 7607(d)(9)(A). "The 'arbitrary and capricious' standard deems the agency action presumptively valid provided the action meets a minimum rationality standard." *Sierra Club,* 353 F.3d at 978–79 (quoting *Natural Res. Def. Council v. EPA*, 194 F.3d 130, 136 (D.C. Cir. 1999)). That is, "[i]f EPA acted within its delegated statutory authority, considered all of the relevant factors, and demonstrated a reasonable connection between the facts on the record and its decision, we will uphold its determination." *Ethyl Corp. v. EPA*, 51 F.3d 1053, 1064 (D.C. Cir. 1995). The court will show particular deference "where the agency's decision rests on an evaluation of complex scientific data within the agency's technical expertise." *Troy Corp. v. Browner*, 120 F.3d 277, 283 (D.C. Cir. 1997); *see also Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 377 (1989).

II.

State, Industry, and Labor petitioners challenge EPA's interpretation and application of the "appropriate and necessary" requirement in § 112(n)(1)(A).

A.

As a threshold matter, petitioners contend that the 2000 Finding was unlawful because EPA did not allow notice and comment on the finding, did not quantify the relevant mercury emissions and associated health risks, and did not describe "alternative control strategies" as required under § 112(n)(1)(A). Because the December 2000 notice was "fundamentally flawed," they contend it "could have no legal consequences" and "could not provide the basis for a § 112(c) listing decision." State, Industry & Labor Pet'rs' Br. (hereinafter "SIL Br.") 27–28. Without a proper listing under § 112(c), they contend, EPA has no authority to regulate EGUs under § 112(d).

The court need not decide whether EPA's December 2000 "appropriate and necessary" finding was procedurally or substantively valid because EPA reconsidered and "confirm[ed]" that determination in the Final Rule. *See* NPRM, 76 Fed. Reg. at 24,977; Final Rule, 77 Fed. Reg. at 9310–11, 9320. For the reasons we will discuss, we hold that EPA's finding in the Final Rule was substantively and procedurally valid, and consequently any purported defects in the 2000 Finding have been cured, rendering petitioners' challenge to December 2000 "appropriate and necessary" finding moot. *Cf. Fund for Animals, Inc. v. Hogan*, 428 F.3d 1059, 1063–64 (D.C. Cir. 2005).

B.

The crux of petitioners' challenge to the Final Rule focuses on EPA's interpretation of the phrase "appropriate and necessary" in § 112(n)(1)(A), 42

U.S.C. § 7412(n)(1)(A). The context of this phrase is as follows. In a special subsection on EGUs, Congress first directed: "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 (f) after imposition of the requirements of this Act." CAA § 112(n)(1)(A), 42 U.S.C. § 7412(n)(1)(A) (emphasis added). Congress then directed: "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.* (emphasis added). Apart from the instruction to "consider[] the results of the [Utility Study]" on public health hazards from EGU emissions, the statute offers no express guidance regarding what factors EPA is required or permitted to consider in deciding whether regulation under § 112 is "appropriate and necessary." Neither does it define the words "appropriate" or "necessary." *See* NPRM, 76 Fed. Reg. at 24,986; 2005 Listing Decision, 70 Fed. Reg. at 15,997. Petitioners object to how EPA chose to fill these gaps.

In matters of statutory interpretation, the court applies the familiar two part test under *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842–43 (1984). First, the court employs traditional tools of statutory construction to determine *de novo* "whether Congress has directly spoken to the precise question at issue." *Id.* at 842, 843 n.9. If the court "ascertains that Congress had an intention on the precise question at issue," *id.* at

843 n.9, "that is the end of the matter" and the court "must give effect to the unambiguously expressed intent of Congress," *id.* at 842–43. If, however, "the statute is silent or ambiguous with respect to the specific issue," the court will uphold the agency's interpretation so long as it constitutes "a permissible construction of the statute." *Id.* at 843. "In such case, a court may not substitute its own construction of a statutory provision for a reasonable interpretation made by the administrator of an agency." *Id.* at 844.

To the extent petitioners' challenge concerns EPA's *change* in interpretation from that in 2005, our approach is the same because "[a]gency inconsistency is not a basis for declining to analyze the agency's interpretation under the *Chevron* framework." *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 981 (2005). That is, "if the agency adequately explains the reasons for a reversal of policy, change is not invalidating, since the whole point of *Chevron* is to leave the discretion provided by the ambiguities of a statute with the implementing agency." *Id.* (internal quotation marks omitted). And while "[u]nexplained inconsistency" may be "a reason for holding an interpretation to be an arbitrary and capricious change from agency practice," *id.*, our review of a change in agency policy is no stricter than our review of an initial agency action, *see FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 514–16 (2009). Thus, although an agency may not "depart from a prior policy *sub silentio* or simply disregard rules that are still on the books," the agency "need not demonstrate to a court's satisfaction that the reasons for the new policy are *better* than the reasons for the old one." *Id.*

at 515. Rather, "it suffices that the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better." *Id.*

1. *Reliance on delisting criteria.* In the Final Rule, EPA concluded that it is "appropriate and necessary" to regulate HAP emissions on the basis, *inter alia*, that EGU emissions of certain HAPs pose a cancer risk higher than the standard set forth in the § 112(c)(9) delisting criteria (i.e., greater than one in a million for the most exposed individual). *See* Final Rule, 77 Fed. Reg. at 9311; NPRM, 76 Fed. Reg. at 24,998. Petitioners contend that by so doing EPA wrongly conflated the delisting criteria with the "appropriate and necessary" determination. "By applying the *delisting* provisions of § 112(c)(9) in making the initial, *pre-listing* determination whether it is 'appropriate and necessary' to regulate EGUs, EPA has unlawfully imposed requirements on itself the Congress chose not to impose at the listing stage." SIL Br. 35. They maintain that EPA's approach "would treat EGUs the same as all other major source categories — as a category that *must* be listed *unless* the delisting criteria are met." *Id.*

EPA explained that it was relying upon the delisting criteria to interpret an ambiguous term in § 112(n)(1)(A), namely, "hazards to public health," *see* Final Rule, 77 Fed. Reg. at 9333–34; NPRM, 76 Fed. Reg. at 24,992–93, because the phrase "hazards to public health" is nowhere defined in the CAA. EPA looked to the delisting criteria, which specify the risk thresholds below which a source category need not be regulated, as evidence of congressional judgment as

to what *degree* of risk constitutes a health hazard. *See id.* EPA explained:

> Although Congress provided no definition of *hazard to public health*, section 112(c)(9)(B) is instructive. In that section, Congress set forth a test for removing source categories from the section 112(c) source category list. That test is relevant because it reflects Congress' view as to the level of health effects associated with HAP emissions that Congress thought warranted continued regulation under section 112.

NPRM, 76 Fed. Reg. at 24,993 (emphasis added); *see* Final Rule, 77 Fed. Reg. at 9333–34. EPA concluded that it had discretion also to consider various other factors in evaluating hazards to public health, including

> the nature and severity of the health effects associated with exposure to HAP emissions; the degree of confidence in our knowledge of those health effects; the size and characteristics of the populations affected by exposures to HAP emissions; [and] the magnitude and breadth of the exposures and risks posed by HAP emissions from a particular source category, including how those exposures contribute to risk in populations with additional exposures to HAP from other sources[.]

NPRM, 76 Fed. Reg. at 24,992; *see* Final Rule, 77 Fed. Reg. at 9334.

EPA reasonably relied on the § 112(c)(9) delisting criteria to inform its interpretation of the undefined statutory term "hazard to public health." Congress did not specify what types or levels of public health risks should be deemed a "hazard" for purposes of § 112(n)(1)(A). By leaving this gap in the statute, Congress delegated to EPA the authority to give reasonable meaning to the term. *Cf. Chevron*, 467 U.S. at 843–44. EPA's approach does not, as petitioners contend, "treat EGUs the same as all other major source categories." SIL Br. 35. Other major source categories *must* be listed unless the delisting criteria are satisfied; EPA's approach treats EGUs quite differently. For EGUs, EPA reasonably determined that it may look at a broad range of factors — only one of which concerned the § 112(c)(9) benchmark levels — in assessing the health hazards posed by EGU HAPs. Nowhere does EPA state or imply that the delisting criteria provide the sole basis for determining whether it is "appropriate and necessary" to regulate EGUs under § 112. Because EPA's approach is based on a permissible construction of § 112(n)(1)(A), it is entitled to deference and must be upheld.

2. *Costs of regulation*. Noting that in 2005 EPA construed § 112(n)(1)(A) to allow consideration of costs in determining whether regulation of EGU HAP emissions is "appropriate," petitioners contend that EPA's new interpretation to "preclude consideration of costs," SIL Br. 42, "unreasonably constrains the language of § 112(n)(1)(A)," SIL Br. 39. They point to the dictionary definition of "appropriate" and to the differences between regulation of EGUs under § 112(n)(1)(A) and

regulating other sources under § 112(c), and to this court's precedent that "only where there is 'clear congressional intent to preclude consideration of cost' [do] we find agencies barred from considering costs." SIL Br. 40 (quoting *Michigan v. EPA*, 213 F.3d 663, 678 (D.C. Cir. 2000), *cert. denied*, 532 U.S. 904 (2001)). They contend that EPA's new interpretation "is also unlawful because it eliminates the discretion that Congress intended EPA to exercise after completing the Utility Study." SIL Br. 41. As they see it, if the statutory term "appropriate" imposes any limit whatsoever, it must at least limit regulation to "risks [that] are worth the cost of elimination." SIL Reply Br. 14 (quoting *Michigan v. EPA*, 213 F.3d at 667 (addressing the term "significant")).

In the Final Rule, EPA stated that "it is reasonable to make the listing decision, including the appropriate determination, without considering costs." Final Rule, 77 Fed. Reg. at 9327. EPA reasoned that § 112(n)(1)(A) would have included an "express statutory requirement that the Agency consider costs in making the appropriate determination" if Congress wanted to require EPA to do so. *Id.* EPA also noted that "[t]o the extent [its] interpretation differs from the one set forth in 2005," it had "fully explained the basis for such changes." *Id.* at 9323 (citing NPRM, 76 Fed. Reg. at 24,986–93). (Even in 2005, EPA noted only that "[n]othing precludes EPA from considering costs in assessing whether regulation of [EGUs] under section 112 is appropriate in light of all the facts and circumstances presented." 2005 Delisting Decision, 70 Fed. Reg. at 16,001 n.19.) In responding to

comments reacting to its position that "the better reading of the term 'appropriate' is that it does not allow for the consideration of costs in assessing whether hazards to public health or the environment are reasonably anticipated to occur based on EGU emissions," NPRM, 76 Fed. Reg. at 24,989, EPA observed that the dictionary definition of "appropriate" does not require consideration of costs and that commenters had failed to identify an express statutory requirement to that effect. EPA also stated that it was reasonable to decline to consider costs in the absence of an express statutory requirement to do so because Congress, in enacting § 112, was principally concerned with mitigating hazards to public health and the environment from HAP emissions. *See* Final Rule, 77 Fed. Reg. at 9327. Inasmuch as Congress had treated the regulation of HAP emissions differently in the 1990 Amendments because EPA was not acting quickly enough, EPA concluded it was reasonable to make a listing decision without considering costs. *See id.*

On its face, § 112(n)(1)(A) neither requires EPA to consider costs nor prohibits EPA from doing so. Indeed, the word "costs" appears nowhere in subparagraph A. In the absence of any express statutory instruction regarding costs, petitioners rely on the dictionary definition of "appropriate" — meaning "especially suitable or compatible" or "suitable or proper in the circumstances" — to argue that EPA was required "to take into account costs to the nation's electricity generators when deciding whether to regulate EGUs." SIL Br. 39 (citing MERRIAM-WEBSTER'S ONLINE DICTIONARY; NEW OXFORD AMERICAN DICTIONARY (2d ed.

2005)). Yet these definitions, which do not mention costs, merely underscore that the term "appropriate" is "open-ended," "ambiguous," and "inherently context-dependent." *Sossamon v. Texas*, 131 S. Ct. 1651, 1659 (2011); *cf. Nat'l Ass'n of Clean Air Agencies v. EPA*, 489 F.3d 1221, 1229 (D.C. Cir. 2007).

Even if the word "appropriate" might require cost consideration in *some* contexts, such a reading of "appropriate" is unwarranted here, where Congress directed EPA's attention to the conclusions of the study regarding public health hazards from EGU emissions. Throughout § 112, Congress mentioned costs explicitly where it intended EPA to consider them. *Cf.* CAA § 112(d)(2), 112(d)(8)(A)(i), 112(f)(1)(B), 112(f)(2)(A), 112(n)(1)(B), 112(s)(2), 42 U.S.C. § 7412(d)(2), 7412(d)(8)(A)(i), 7412(f)(1)(B), 7412(f)(2)(A), 7412(n)(1)(B), 7412(s)(2). Indeed, in the immediately following subparagraph of § 112(n), Congress expressly required costs to be considered. CAA § 112(n)(1)(B), 42 U.S.C. § 7412(n)(1)(B). The contrast with subparagraph A could not be more stark. "Where Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally . . . in the disparate inclusion or exclusion." *Russello v. United States*, 464 U.S. 16, 23 (1983) (alterations omitted); *cf. Catawba Cnty., N.C. v. EPA*, 571 F.3d 20, 36 (D.C. Cir. 2009). Petitioners offer no compelling reason why Congress, by using only the broad term "appropriate," would have intended the same result — that costs be considered — in § 112(n)(1)(A). The legislative history the dissent claims "establishes" the point,

Dissent at 13, consists of a Floor statement by a single Congressman that at best is ambiguous.[1] For these reasons, we conclude that the statute does not evince unambiguous congressional intent on the specific issue of whether EPA was required to consider costs in making its "appropriate and necessary" determination under § 112(n)(1)(A).

Turning to EPA's approach, its position that "nothing about the definition of ['appropriate'] compels a consideration of costs," Final Rule, 77 Fed. Reg. at 9327, is clearly permissible. In *Whitman v. American Trucking Ass'ns*, 531 U.S. 457 (2001), Justice Scalia, writing for a unanimous Court, noted that the Supreme Court has "refused to find implicit in ambiguous sections of the CAA an authorization to consider costs that has elsewhere, and so often, been expressly granted." *Id.* at 467; *see also Natural Res. Def. Council v. U.S. EPA*, 824 F.2d 1146, 1163–65 (D.C. Cir. 1987) (en banc). EPA's interpretation is consistent with that instruction. Just as in *Whitman*, EPA declines to find in an ambiguous section what in so many other CAA sections Congress has mentioned expressly. And even assuming *Whitman* might be distinguished on grounds it concerned a different provision of the CAA, the question remains only whether EPA's interpretation is *permissible*.

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[1] *See* 1 A LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1990, at 1416–17 (1993) (statement by Rep. Oxley) (indicating that the provision authorizing regulation of EGUs would "avoid[] the imposition of excessive and unnecessary costs" *by ensuring that* EPA can regulate "only if the studies described in section 112(n) clearly establish that emissions . . . from such units cause a significant risk of serious adverse effects on public health").

Petitioners cannot point to a single case in which this court has *required* EPA to consider costs where the CAA does not expressly so instruct. In *Michigan v. EPA*, this court merely held that "the agency was *free* to consider . . . costs" under CAA § 110(a)(2)(D), 42 U.S.C. § 7410(a)(2)(D), as EPA had urged in that case. 213 F.3d at 679 (emphasis added).

EPA's interpretation is also consistent with the purpose of the 1990 Amendments, which were aimed at remedying "the slow pace of EPA's regulation of HAPs" following the initial passage of the CAA. *New Jersey*, 517 F.3d at 578. To ensure that HAP emissions would be reduced to at least minimally acceptable levels, Congress, among other things, listed 189 HAP substances for regulation and "restrict[ed] the opportunities for EPA and others to intervene in the regulation of HAP sources." *Id.* The overall purpose of the 1990 Amendments was to spur EPA to action. Although Congress gave EGUs a three-year pass when it instructed EPA to conduct a further study before regulating EGUs, *see* CAA § 112(n)(1)(A), 42 U.S.C. § 7412(n)(1)(A), there is no indication that Congress did *not* intend EPA to regulate EGUs if and when their public health hazards were confirmed by the study, as they were here.

Petitioners, and our dissenting colleague, suggest that EPA's interpretation is unreasonable because the notion that Congress would have authorized EPA to regulate without *any* consideration of regulatory costs is implausible. But this argument rests on a false premise. Here, as in *Whitman*, interpreting one isolated provision not to require cost consideration

does not indicate that Congress was unconcerned with costs altogether, because Congress accounted for costs elsewhere in the statute. Section 112(d)(2) expressly requires EPA to "tak[e] into consideration the cost of achieving . . . emission reduction[s]" when setting the *level* of regulation under § 112. CAA § 112(d)(2), 42 U.S.C. § 7412(d)(2). It is true that this cost consideration requirement does not apply with respect to MACT floors. Yet even for MACT floors, costs are reflected to some extent because the floors correspond (by definition) to standards that better-performing EGUs have *already achieved*, presumably in a cost efficient manner. *See* CAA § 112(d)(3)(A), 42 U.S.C. § 7412(d)(3)(A). Moreover, Industry respondent intervenors point out that petitioners' proposed approach would lead to an improbable "all-or-nothing" scheme in which EPA could "choose not to regulate EGUs *at all* under Section 112 based on cost, even though EPA could not consider cost to justify a less stringent emission standard than the MACT floor." Indus. Resp't Intvn'rs' Br. 8.

Contrary to petitioners' claims, the word "appropriate" is not rendered meaningless unless interpreted to include cost consideration. Petitioners contend that § 112(n)(1)(A) mandates a two-step inquiry: EPA must "*first* identify 'a health hazard' from HAPs emitted from EGUs, and *then* determine whether regulation of that health hazard is 'appropriate and necessary.'" SIL Br. 41 (emphasis added). If the existence of a health hazard automatically *means* regulation is appropriate, they contend, then EPA has unlawfully abdicated the exercise of discretion Congress delegated to it. This argument, too, is unpersuasive. First, the

rulemaking record reflects that EPA did *not* focus exclusively on health hazards in considering whether regulation would be "appropriate"; EPA also considered "the availability of controls to address HAP emissions from EGUs." NPRM, 76 Fed. Reg. at 24,989; *see id.* at 24,997; *see also* Final Rule, 77 Fed. Reg. at 9311. The factual premise of petitioners' argument is therefore incorrect. Second, even if EPA *had* focused exclusively on health hazards, the word "appropriate" would still have meaning in § 112(n)(1)(A) because the provision does not assume, as petitioners seem to suggest, that EPA would in fact "identify 'a health hazard'" from EGUs. SIL Br. 41. Rather, the statute directs EPA to "*perform a study* of the hazards to public health *reasonably anticipated* to occur" and then to "regulate [EGUs] . . . if the Administrator finds such regulation is appropriate and necessary after *considering the results of the study*." CAA § 112(n)(1)(A), 42 U.S.C. § 7412(n)(1)(A) (emphasis added). At the time Congress enacted the 1990 Amendments, it was possible that the Utility Study would fail to identify significant health hazards from EGU HAP emissions. (Indeed, petitioners argue that it *did* fail to do so. *See* SIL Br. 13, 48–54.) Therefore, EPA had to "consider[] the results of the study" in order to determine whether regulation would be "appropriate" based on its assessment of the existence and severity of such health hazards. The term "appropriate" plainly plays a role: it requires EPA to apply its judgment in evaluating the results of the study.

Basically, petitioners and our dissenting colleague seek to impose a requirement that

Congress did not. What they ignore is that Congress sought, as a threshold matter, to have EPA confirm the nature of public health hazards from EGU emissions. That is the clear focus of § 112(n)(1)(A). After that, Congress left it to the expertise and judgment of EPA whether or not to regulate. For EPA to focus its "appropriate and necessary" determination on factors relating to public health hazards, and not industry's objections that emission controls are costly, properly puts the horse before the cart, and not the other way around as petitioners and our dissenting colleague urge. Given Congress's efforts in the 1990 Amendments to promote regulation of hazardous pollutants, EPA's interpretation of § 112(n)(1)(A) appears consistent with Congress's intent. Recall that only EGUs' hazardous emissions were relieved of regulation until completion of a study, and once the study confirmed the serious public health effects of hazardous pollutants from EGUs, Congress gave no signal that the matter should end if remediation would be costly.

Our dissenting colleague has written a powerful-sounding dissent. It sounds powerful, however, only because it elides the distinction between EPA's initial decision regarding whether to list EGUs as sources of hazardous air pollutants, and its subsequent decision regarding whether to issue stringent beyond-the-floor standards for such sources. The dissent refers to both together as the MACT "program." Dissent at 3. But the "program" in fact proceeds in two stages, as the dissent acknowledges. It is only as to the first, listing stage that EPA has determined it should not consider

costs. That stage leads only to the setting of the statutory MACT floor which, as the dissent notes, is a "minimum stringency level." *Id.* The second stage leads to beyond-the-floor standards, which are more restrictive. When setting those, EPA *does* consider costs.

The dissent contends that "[m]eeting that [MACT] floor will be prohibitively expensive, particularly for many coal-fired utilities," forcing them "out of business." Dissent at 10–11. But in the Final Rule EPA rejected this contention, concluding that "the estimated number of early retirements," of EGUs "that may result from this rule is . . . less than 2 percent of all U.S. coalfired capacity" in 2015. Final Rule, 77 Fed. Reg. at 9416; *see also id.* at 9408 (rejecting the claim that the Final Rule "will result in substantial power plant retirements"). Petitioners have not challenged that conclusion. Industry respondent intervenors further observe that continuing to exempt EGUs from HAP regulation penalizes those plants that *have* made investments in clean air technology, and that "[t]he Rule merely requires owners of uncontrolled plants to install and operate control technology already operating at their competitors' plants, both leveling the playing field and improving health and the environment." Indus. Resp't Intv'nrs' Br. 7. The Final Rule, which, as the dissent notes, EPA has calculated will cost $9.6 billion a year, includes the cost of both stages. EPA also has concluded under Executive Order 13563 that the annualized benefits are $37 to $90 billion. *See* Final Rule, 77 Fed. Reg. at 9306. (The dissent questions this conclusion, notwithstanding its promise that agency cost-benefit analyses should be

reviewed deferentially.) That's "billion with a b," in the dissent's catchy phrase. Dissent at 1. In short, "the benefits of this rule outweigh its costs by between 3 to 1 or 9 to 1." Final Rule, 77 Fed. Reg. at 9306.

As the agency noted, "[u]nder section 112(n)(1)(A), EPA is evaluating whether to regulate HAP emissions from EGUs *at all*." NPRM, 76 Fed. Reg. at 24,989 (emphasis added). And there was nothing unreasonable about its conclusion that costs should not be considered in determining "whether HAP emissions from EGUs pose a hazard to public health or the environment." *Id.* at 24,988; *see id.* at 24,990. That is especially so when "Congress did not authorize the consideration of costs in listing any [other] source categories for regulation under section 112 . . . [and] did not permit the consideration of costs in evaluating whether a source category could be delisted pursuant to the provisions of section 112(c)(9)." *Id.* at 24,989. And while the dissent insists on "the centrality of cost consideration to proper regulatory decisionmaking," Dissent at 6, *Whitman* makes clear the Supreme Court believes that Congress does not necessarily agree. Nor is *Whitman* the only case in which courts have found that Congress legislated in a way the dissent would find irrational.[2]

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[2] *See Am. Textile Mfrs. Inst. v. Donovan*, 452 U.S. 490, 511–12 (1981) (holding that OSHA is not required to conduct a cost-benefit analysis in promulgating a standard under section 6(b)(5) of the Occupational Safety and Health Act because "Congress uses specific language when intending that an agency engage in cost-benefit analysis"); *Tenn. Valley Auth. v.*

Academic generalities, *see* Dissent at 6–8, do not demonstrate that EPA could not reasonably proceed as it did in interpreting congressional intent — especially not generalities by academics who are criticizing the Supreme Court for failing to read congressional statutes as they do.[3] The same is true of utterances by single Justices — especially a separate statement by one Justice concurring in *Whitman* and a question by another during oral argument about a different statutory section. *See* Dissent at 6–7. Nor do the different approaches of the Bush and Obama Administrations on the role of costs in implementing the CAA do more than demonstrate that administrations may differ and can change positions without legal jeopardy, so long as

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Hill, 437 U.S. 153, 184 (1978) ("The plain intent of Congress in enacting [the Endangered Species Act] was to halt and reverse the trend towards species extinction, whatever the cost."); *Union Elec. Co. v. EPA*, 427 U.S. 246, 257–58 (1976) (holding that EPA may not consider claims of economic infeasibility in evaluating a state requirement that primary ambient air quality standards be met by a certain deadline); *Lead Indus. Ass'n v. EPA*, 647 F.2d 1130, 1150 (D.C. Cir. 1980) ("We are unable to discern here any congressional intent to require, or even permit, [EPA] to consider economic . . . factors in promulgating air quality standards [under the CAA].").

[3] *See* Cass R. Sunstein, *Interpreting Statutes in the Regulatory State*, 103 HARV. L. REV. 405, 492–93 (1989) (criticizing *American Textile Manufacturers Institute*, 452 U.S. 490, for "contributing to the irrationality of the Occupational Safety and Health Act" by "refusing to read the statute" as the author would); Cass R. Sunstein, *Cost- Benefit Default Principles*, 99 MICH. L. REV. 1651, 1671 (2001) (same); Richard J. Pierce, Jr., *The Appropriate Role of Costs in Environmental Regulation*, 54 ADMIN L. REV. 1237, 1253 (2002) (criticizing the *Whitman* Court for relying on an "anti-cost canon").

an adequate explanation is provided as was done here. *See Chevron*, 467 U.S. at 865–66. The question before the court is not "Should EPA have considered costs in making its threshold determination under § 112(n)(1)(A)?" but rather "Was EPA required to do so at that point in its regulatory evaluation?" EPA has explained why it concluded costs were not part of the "appropriate and necessary" determination, and given Congress's choice to leave the factors entering into that determination to EPA, petitioners, and our dissenting colleague, fail to demonstrate that EPA's considered judgment about the factors to be considered was unlawful as an impermissible and unreasonable interpretation of § 112(n)(1)(A). Congress left to EPA "the accommodation of manifestly competing interests," *id.* at 865, and EPA did all that Congress required of it. Exactly how and when EGU emissions are to be regulated is a different question.

For these reasons, we hold that EPA reasonably concluded it need not consider costs in making its "appropriate and necessary" determination under § 112(n)(1)(A).

3. *Environmental harms.* Petitioners also contend that EPA was constrained to consider only public health hazards, not environmental or other harms, in making its "appropriate and necessary" determination. In their view, § 112(n)(1)(A) unambiguously forecloses the consideration of non-health effects because the statute requires EPA to make its "appropriate and necessary" determination after considering the results of the Utility Study, which is focused exclusively on identifying "hazards

to public health" caused by EGU HAP emissions. *See* SIL Br. 44. Petitioners insist that in 2005 EPA followed the health-only approach.

EPA reasoned that "nothing in the statute suggests that the [EPA] should ignore adverse environmental effects in determining whether to regulate EGUs under section 112." NPRM, 76 Fed. Reg. at 24,988; *see* Final Rule, 77 Fed. Reg. at 9325. To the contrary, EPA concluded that the purpose of the CAA and the statute's express instruction to assess environmental effects in the *Mercury Study* suggest "it is reasonable to consider environmental effects in evaluating the hazards posed by HAP emitted from EGUs." NPRM, 76 Fed. Reg. at 24,988; *see* Final Rule, 77 Fed. Reg. at 9325. EPA explained in response to comments that restricting it from considering environmental harms would "incorrectly conflate[] the requirements for the Utility Study with the requirement to regulate EGUs under CAA section 112 if EPA determines it is appropriate and necessary to do so." Final Rule, 77 Fed. Reg. at 9325.

EPA did not err in considering environmental effects alongside health effects for purposes of the "appropriate and necessary" determination. Although petitioners' interpretation of § 112(n)(1)(A) is plausible, the statute could also be read to treat consideration of the Utility Study as a mere condition precedent to the "appropriate and necessary" determination. EPA has consistently adopted this latter interpretation, including in 2005. *See* 2005 Delisting Decision, 70 Fed. Reg. at 16,002. In the absence of any limiting text, and considering the context (including § 112(n)(1)(B)) and purpose of

the CAA, EPA reasonably concluded that it could consider environmental harms in making its "appropriate and necessary" determination. The court need not decide whether environmental effects *alone* would allow EPA to regulate EGUs under § 112, because EPA did not base its determination *solely* on environmental effects. As we explain, *infra* Part II.B.5, EPA's decision to list EGUs can be sustained on the basis of its findings regarding health hazards posed by EGU HAP emissions.

4. *Cumulative impacts of HAP emissions*. On the grounds that § 112(n)(1)(A) directs EPA to study hazards reasonably anticipated to occur "as a result of" EGU HAP emissions, petitioners contend that EPA was required to base its "appropriate and necessary" determination on public health hazards that occur *exclusively* due to EGU HAPs. Thus, they contend, EPA erred in considering EGU HAP emissions that merely "contribute to" or exacerbate otherwise-occurring health hazards. Petitioners point out that EPA's interpretation conflicts with its approach in 2005, when it read § 112(n)(1)(A) to authorize regulation only upon a showing that EGU emissions *alone* would cause harm.

EPA explained that it could reasonably consider the cumulative impacts of HAP emissions because

> focusing on HAP emissions from EGUs alone when making the appropriate finding ignores the manner in which public health and the environment are affected by air pollution. An individual that suffers adverse health effects as the result of the combined HAP emissions from EGUs and other sources is harmed,

> irrespective of whether HAP emissions from EGUs alone would cause the harm.

NPRM, 76 Fed. Reg. at 24,988; *see* Final Rule, 77 Fed. Reg. at 9325. EPA acknowledged it was departing from its 2005 approach, *see* NPRM, 76 Fed. Reg. at 24,989, but justified the departure on grounds that the 2005 approach had been "flawed" and "non-scientific" to the extent that "EPA [had] incorrectly determined that U.S. EGU emissions of [mercury] did not constitute a hazard to public health," *id.* at 25,019; *cf.* Final Rule, 77 Fed. Reg. at 9322–23.

EPA's interpretation in the Final Rule is entitled to deference. Section 112(n)(1)(A)'s reference to hazards occurring "as a result of" EGU HAP emissions could connote hazards *caused solely* by EGU emissions, but it could also connote hazards *exacerbated* by EGU emissions. EPA's commonsense approach to this statutory ambiguity was well within the bounds of its discretion, and it adequately explained its reversal from 2005. Petitioners' contention that EPA erred in considering the effects of HAPs emitted by non-EGU sources is therefore unavailing. In any event, EPA concluded in the Mercury Study that "even if there were no other sources of [mercury] exposure, exposures associated with deposition attributable to U.S. EGUs" would place the most susceptible populations above the methylmercury reference dose. NPRM, 76 Fed. Reg. at 25,010. Thus, EPA *did* find, as petitioners contend it was required to do, that EGU emissions alone would cause health hazards.

5. *Regulation under § 112(d).* Petitioners contend that even if it is "appropriate and necessary" to regulate EGU HAP emissions, such regulation should be effected under § 112(n)(1)(A) to the degree appropriate and necessary — not under § 112(d) through the imposition of MACT standards. They maintain that regulation of EGU HAPs that do not pose health hazards, or regulation at a level higher than needed to eliminate such hazards, is not regulation that is "appropriate and necessary." Petitioners contend that § 112(n)(1)(A)'s instruction to "regulate electric steam generating units *under this section*" (emphasis added) — rather than "*under § 112(d)*" — evinces congressional intent that EGU HAPs should be regulated differently than other sources. SIL Br. 36.

EPA expressly considered and dismissed petitioners' proposed interpretation. EPA concluded that the phrase "under this section" presumptively refers to regulation under *section* 112, not to regulation under *subparagraph* 112(n)(1)(A). *See* Final Rule, 77 Fed. Reg. at 9330; NPRM, 76 Fed. Reg. at 24,993. Thus, the plain statutory language suggests "EGUs should be regulated in the same manner as other categories for which the statute requires regulation." Final Rule, 77 Fed. Reg. at 9330. EPA explained:

> CAA section 112 establishes a mechanism to list and regulate stationary sources of HAP emissions. Regulation under CAA section 112 generally requires listing under CAA section 112(c)[] [and] regulation under CAA section 112(d)[.] . . . A determination that EGUs

> should be listed once the prerequisite appropriate and necessary finding is made is wholly consistent with the language of section 112(n)(1)(A), and listed sources must be regulated under CAA section 112(d).

Id.; see also id. at 9326.

EPA acted properly in regulating EGUs under § 112(d). Section 112(n)(1)(A) directs the Administrator to "regulate electric steam generating units under this section, if the Administrator finds such regulation is appropriate and necessary." CAA § 112(n)(1)(A), 42 U.S.C. § 7412(n)(1)(A). EPA reasonably interprets the phrase "under this section" to refer to the entirety of section 112. *See Desert Citizens Against Pollution v. EPA*, 66 F.3d 524, 527 (D.C. Cir. 2012). Under section 112, the statutory framework for regulating HAP sources appears in § 112(c), which covers listing, and § 112(d), which covers standard-setting. *See* CAA § 112(c), 112(d), 42 U.S.C. § 7412(c), 7412(d). This court has previously noted that "where Congress wished to exempt EGUs from specific requirements of section 112, it said so explicitly." *New Jersey*, 517 F.3d at 583. EPA reasonably concluded that the framework set forth in § 112(c) and § 112(d) — rather than another, hypothetical framework not elaborated in the statute — provided the appropriate mechanism for regulating EGUs under § 112 after the "appropriate and necessary" determination was made. Therefore, EPA's interpretation is entitled to deference and must be upheld.

6. *Regulation of all HAP emissions*. In the Final Rule, EPA claimed authority to promulgate

standards for all listed HAPs emitted by EGUs, not merely for those HAPs it has expressly determined to cause health or environmental hazards. *See, e.g.*, 77 Fed. Reg. at 9325–26. Petitioners challenge this approach, maintaining that § 112(n)(1)(A) limits regulation to those individual HAPs that are "appropriate and necessary" to regulate. Petitioners also object that EPA's interpretation contradicts its 2005 rulemaking when it supported a substance-by-substance approach to regulation.

EPA explained its disagreement with petitioners' proposed approach. First, EPA reiterated its view that once an "appropriate and necessary" determination is properly made, "EGUs should be regulated under section 112 in the same manner as other categories for which the statute requires regulation." Final Rule, 77 Fed. Reg. at 9326. EPA then reasoned that this court's decision in *National Lime*, 233 F.3d at 633, "requires [EPA] to regulate *all* HAP from major sources of HAP emissions once a source category is added to the list of categories under CAA section 112(c)." *Id.* (emphasis added). In other words, EPA concluded that if EGUs are to be regulated in the same manner as other source categories, then *all* HAPs emitted by EGUs should be subject to regulation. *See id.*

EPA did not err by concluding that it may regulate all HAP substances emitted by EGUs. In *National Lime*, 233 F.3d at 633, this court considered whether § 112(d)(1) permitted EPA "to set emission levels only for those listed HAPs" that could be controlled with existing technology. Concluding that EPA had a "clear statutory obligation to set emission

standards for each listed HAP," the court held that "the absence of technology-based pollution control devices for HCl, mercury, and total hydrocarbons did not excuse EPA from setting emission standards for those pollutants." *Id.* at 634. Although petitioners attempt to distinguish *National Lime* on grounds that it concerned "major sources" rather than EGUs, they have not provided any compelling reason why EGUs should not be regulated the same way as other sources once EPA has determined that regulation under § 112 is "appropriate and necessary." It also bears emphasis that the plain text of § 112(n)(1)(A) directs the Administrator to "regulate electric utility steam generating units"—not to regulate their *emissions*, as petitioners suggest. This source-based approach to regulating EGU HAPs was affirmed in *New Jersey*, 517 F.3d at 582, which held that EGUs could not be delisted without demonstrating that EGUs, as a category, satisfied the delisting criteria set forth in § 112(c)(9). The notion that EPA must "pick and choose" among HAPs in order to regulate only those substances it deems most harmful is at odds with the court's precedent.

To the extent EPA's interpretation differs from its 2005 approach, it adequately explained its decision. *See* Final Rule, 77 Fed. Reg. at 9325–26. Although petitioners suggest otherwise, the 2005 Delisting Decision did not address whether EPA could regulate all listed EGU HAPs following an "appropriate and necessary" determination. Here, EPA offered a reasoned explanation for its approach; no more is required. *See Fox Television Stations*, 556 U.S. at 515; *Nat'l Cable & Telecomms. Ass'n*, 545 U.S. at 981.

In view of the above, EPA's conclusion that it may regulate *all* HAP emissions from EGUs must be upheld.

III.

A.

Petitioners assert that even if EPA has correctly interpreted § 112(n)(1)(A), the emission standards that EPA promulgated in the Final Rule are flawed in several respects.

1. *Appropriate and necessary determination.* Petitioners first contend that the agency's determination that it was "appropriate and necessary" to regulate EGUs is arbitrary and capricious. Consistent with their position on the proper interpretation of § 112(n)(1)(A), petitioners take a HAP-by-HAP approach to criticizing EPA's Finding. But, as we explained above, EPA reasonably interprets the CAA as allowing it to regulate *all* EGU HAP emissions pursuant to the usual MACT program once it makes the threshold "appropriate and necessary" determination. The question then is whether EPA reasonably found it appropriate and necessary to regulate EGUs based on all the record evidence before it.

EPA's "appropriate and necessary" determination in 2000, and its reaffirmation of that determination in 2012, are amply supported by EPA's findings regarding the health effects of mercury exposure. Mercury exposure has adverse effects on human health, primarily through consumption of fish in which mercury has

bioaccumulated. *See* Final Rule, 77 Fed. Reg. at 9310. And EGUs are the largest domestic source of mercury emissions. *Id.* Petitioners do not dispute these basic facts, but instead take issue with whether EPA has sufficiently quantified the contribution of EGU mercury emissions to overall mercury exposure. Our case law makes clear, however, that EPA is not obligated to conclusively resolve every scientific uncertainty before it issues regulation. *See Coal. for Responsible Regulation v. EPA*, 684 F.3d 102, 121 (D.C. Cir. 2012) ("If a statute is precautionary in nature and designed to protect the public health, and the relevant evidence is difficult to come by, uncertain, or conflicting because it is on the frontiers of scientific knowledge, EPA need not provide rigorous step-by-step proof of cause and effect to support an endangerment finding.") (internal quotation marks omitted). Instead, "[w]hen EPA evaluates scientific evidence in its bailiwick, we ask only that it take the scientific record into account in a rational manner." *Id.* at 122 (internal quotation marks omitted).

EPA did so here. As explained in the technical support document (TSD) accompanying the Final Rule, EPA determined that mercury emissions posed a significant threat to public health based on an analysis of women of child-bearing age who consumed large amounts of freshwater fish. *See* Mercury TSD; NPRM, 76 Fed. Reg. at 25,007; Final Rule, 77 Fed. Reg. at 9311–17. The design of EPA's TSD was neither arbitrary nor capricious; the study was reviewed by EPA's independent Science Advisory Board, which stated that it "support[ed] the overall design of and approach to the risk

assessment" and found "that it should provide an objective, reasonable, and credible determination of the potential for a public health hazard from mercury emitted from U.S. EGUs." SAB Letter to EPA Administrator Jackson at 2 (Sept. 29, 2011), EPA-SAB-11-017. In addition, EPA revised the final TSD to address SAB's remaining concerns regarding EPA's data collection practices. *See* Final Rule, 77 Fed. Reg. at 9313–16.[4]

Petitioners' remaining objections center on the change in EPA's position between 2005 and 2012. Although petitioners are correct that EPA weighed certain pieces of evidence differently at different times, the agency reasonably and adequately explained its basis for changing its position on whether mercury emissions posed a sufficient risk to constitute a public health hazard. *See* EPA Br. 40; NPRM, 76 Fed. Reg. at 25,019–20. EPA identified and analyzed what it viewed as technical flaws in the scientific analysis supporting the 2005 Delisting Decision, including a failure to evaluate the cumulative health hazard from EGU emissions when

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[4] For the reasons explained in *UARG v. EPA*, Nos. 12-1166, 12-1366, 12-1420, 2014 WL 928230 (D.C. Cir. Mar. 11, 2014), we do not address petitioners' claims that SAB's final report on the Mercury TSD was submitted too late to allow public comment and that EPA unreasonably refused SAB's request to review the final TSD. Petitioners did not raise those issues in comments, and reconsideration is still pending before the agency. Even if these arguments had been properly presented to the agency, petitioners would have forfeited them by raising them only in a cursory footnote in their opening brief before this court. *See Hutchins v. Dist. of Columbia*, 188 F.3d 531, 539 n.3 (D.C. Cir. 1999) (en banc) ("We need not consider cursory arguments made only in a footnote").

combined with other sources of mercury, NPRM, 76 Fed. Reg. at 25,019, and health hazards from methylmercury exposure above the reference dose, *id.* at 25,020. Those explanations are sufficient to meet the agency's burden. *See Fox Television Stations*, 556 U.S. at 514–16.

2. *Major source classification*. Petitioners contend that in setting emission standards for EGUs, EPA was required to distinguish between "major sources" and "area sources." As relevant here, major sources are automatically subject to MACT controls, while area sources may, in EPA's discretion, be regulated under alternative standards. *See* CAA § 112(a)(1), 112(a)(2), 112(d)(5), 42 U.S.C. § 7412(a)(1), 7412(a)(2), 7412(d)(5). Petitioners assert that EPA's failure to segregate the different types of sources fatally compromises the Final Rule because the EGU emission standards should have been based exclusively on data from major source EGUs. But § 112(d) does not require EPA to regulate EGUs as "major sources" and "area sources"; it merely says that, *if* EPA lists major and area sources, it must then regulate them according to the separate provisions. *See* CAA § 112(d)(1), 42 U.S.C. § 7412(d)(1).

EPA's decision not to draw such a distinction here is a reasonable one. As EPA emphasizes, distinguishing between major source and area source EGUs runs counter to the separate statutory provisions governing EGUs. While other sources are classified as major or area sources depending on the quantity of emissions they emit, § 112 specifically defines EGUs in terms of their electrical output.

Compare CAA § 112(a)(8), *with* CAA § 112(a)(1)–(2). Consistent with ordinary rules of statutory construction, EPA reasonably relied on the more specific definition in § 112(a)(8) rather than the general definitions applicable to all other sources. *See RadLAX Gateway Hotel, LLC v. Amalgamated Bank*, 132 S. Ct. 2065, 2070–72 (2012). Requiring EPA to classify EGUs as major or area sources would also create redundancy in the source-category listing criteria. Section 112(c)(3) of the CAA requires EPA to list area sources for regulation if EPA determines that they "warrant[] regulation." CAA § 112(c)(3), 42 U.S.C. § 7412(c)(3). That finding is arguably unnecessary as applied to EGUs given the requirement in § 112(n)(1)(A) that EPA make a finding that regulation of all EGUs is "appropriate and necessary."

EPA also did not err in declining to exercise its discretionary authority to require less stringent "generally available control technology," or GACT, standards, rather than MACT standards. *Id.* § 112(d)(5), 42 U.S.C. § 7412(d)(5). In the Final Rule, EPA expressly and reasonably determined that setting separate GACT standards for area source EGUs was unnecessary. *See* Final Rule, 77 Fed. Reg. at 9404, 9438 ("[S]imilar HAP emissions and control technologies are found on both major and area sources" such that "there is no essential difference between area source and major source EGUs with respect to emissions of HAP.").

For these reasons, EPA reasonably declined to interpret § 112 as mandating classification of EGUs as major sources and area sources.

3. *Mercury MACT floor*. Petitioners next challenge EPA's standards for mercury emissions from existing coal-fired EGUs. Petitioners maintain that in calculating the MACT floor for those units, EPA collected emissions data from only those EGUs that were best-performing for mercury emissions. Consequently, petitioners insist, the mercury MACT standard reflects the results achieved by the "best of the best" EGUs, and not the results of the best 12% of all EGUs, as required by statute.

Petitioners' assertions of a biased or irrational data collection process are not supported by a review of the record. "EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem." *Sierra Club v. EPA*, 167 F.3d 658, 662 (D.C. Cir. 1999). Here, EPA determined that a three-pronged approach was appropriate for developing the mercury MACT standard. First, EPA asked all EGUs for all of their data from 2005–10; it received data from 168 units. Information Collection Request ("ICR") Supporting Statement Part A at 9; *see generally* MACT Floor Analysis Spreadsheets. Second, EPA requested and received data from 50 randomly selected EGUs. ICR Supporting Statement Part B at 2, 7–8. Finally, EPA requested and received data from 170 of the best-performing units for non-mercury emissions. *Id.* EPA initially thought that third group would also be the best-performing for mercury emissions, but it discovered that was not the case after examining the data. *See* Responses to Comments, Dec. 2011, v.1, at 573–76 ("RTC").

Based on the results of its ICR, covering a total of 388 EGUs, EPA chose "the average emission

limitation achieved by the best performing 12 percent" of all existing sources "for which [it] ha[d] emissions information," as authorized by CAA § 112(d)(3)(A). *See* NPRM, 76 Fed. Reg. at 25,022–23. Although, as EPA acknowledges, it would be arbitrary and capricious for EPA to set a MACT floor based on intentionally skewed data, the facts indicate that EPA did not do so here. Nor does the record suggest that EPA's data collection efforts resulted in unintentional bias. As previously noted, EPA collected data from a wide range of EGUs because the agency concluded that it could not identify units representing the best performing 12 percent of mercury emitters. That conclusion is borne out by the data in the record, which showed that some of the best-performing units for particulate matter control were among the worst performing units for mercury control. *See generally* MACT Floor Analysis Spreadsheets. Similarly, many of the mercury best performers (32 of the best performing 126 units) were not drawn from the pool of units that EPA targeted as best performers for particulate matter. *See* RTC v. 1 at 575. In short, EPA's data-collection process was reasonable, even if it may not have resulted in a perfect dataset.

4. *Acid gas HAP*. EPA did not conclusively determine that emissions of acid gases such as hydrogen chloride from EGUs pose a health hazard. *See* NPRM, 76 Fed. Reg. at 25,016 ("our case studies did not identify significant chronic non-cancer risks from acid gas emissions"). Petitioners say that given that conclusion, EPA should have established a less stringent, health-based emission standard for acid gases under § 112(d)(4). That provision states: "With

respect to pollutants for which a health threshold has been established, the Administrator may consider such threshold level, with an ample margin of safety, when establishing emission standards under this subsection." CAA § 112(d)(4), 42 U.S.C. § 7412(d)(4). Section 112(d)(4) makes clear, however, that EPA's authority to set alternate standards is discretionary. *See id.* ("the Administrator *may* consider such threshold level") (emphasis added). Here, EPA concluded that it lacked enough evidence to determine whether an alternative standard would protect health "with an ample margin of safety." *See* Final Rule, 77 Fed. Reg. at 9405–06. Petitioners dispute EPA's weighing of the evidence, but petitioners offer no compelling basis for second-guessing EPA's analysis.

Petitioners also suggest that regulation of EGU acid gas emissions to address ecosystem acidification conflicts with Congress's decision in the 1990 CAA amendments to address such acidification in Title IV of the CAA. *See* SIL Reply Br. 5. But petitioners failed to raise that argument before the agency, and did not raise it in this court until their reply brief. We therefore deem the argument forfeited. *See Bd. of Regents of Univ. of Washington v. EPA*, 86 F.3d 1214, 1221 (D.C. Cir. 1996).

5. *UARG delisting petition.* The Utility Air Regulatory Group (UARG) filed a petition with EPA seeking to remove coal-fired EGUs from the list of sources regulated under § 112. EPA denied the petition. Petitioners now argue that that denial was arbitrary and capricious for the same reasons they assert that the agency's determination that it is

"appropriate and necessary" to regulate EGUs was incorrect. Assuming, without deciding, that EPA can delist only a subset of the EGU source category, we reject petitioners' argument on this point. As EPA explained in the Final Rule, UARG's delisting petition did not demonstrate that EPA could make either of the two predicate findings required for delisting under § 112(c)(9)(B): (1) that no source in the category emits HAP "in quantities which may cause a lifetime risk of cancer greater than one in one million to the individual in the population who is most exposed" and (2) that emissions from no source in the category "exceed a level which is adequate to protect public health with an ample margin of safety." CAA § 112(c)(9)(B), 42 U.S.C. § 7412(c)(9)(B); *see also* Final Rule, 77 Fed. Reg. at 9364–65 (discussing technical flaws in UARG's risk analysis).

6. *Chromium emissions data.* Finally, petitioners question the validity of EPA's case study regarding risks from non-mercury EGU emissions. As relevant here, that study found that at 6 of 16 tested facilities, emissions of HAP posed a lifetime cancer risk of more than one in a million to the most exposed individuals. *See* Final Rule, 77 Fed. Reg. at 9319. Petitioners contend that EPA's cancer-risk finding was the product of contaminated emissions samples, and that EPA has refused to correct the emissions data it used. In making this argument, they rely on their own independent "subsequent resampling" of the facilities that EPA examined in conducting its inhalation risk assessment. SIL Br. 52 n.58; UARG, Petition for Reconsideration of MATS Rule at 6–7 (Apr. 16, 2012), EPAHQ- OAR-2009-0234-20179 (J.A. 2493–94).

EPA did not act arbitrarily or capriciously in relying on the chromium emissions data to which petitioners object. As EPA explained in its responses to comments, the data came from source representatives themselves. RTC v.1 at 187. EPA reasonably believed that these representatives — given their "concern[] about data accuracy" — would review "all data before certifying their accuracy and submitting them to the EPA." *Id.* EPA did not err in relying on this certified data. We cannot consider the data from petitioners' independent resampling, which was conducted after the Final Rule issued and was not part of the administrative record. *See* CAA § 307(d)(7)(A), 42 U.S.C. § 7607(d)(7)(A).

B.

A group of electric utilities and industry groups have filed a separate petition raising issues specific to industry. Many of industry petitioners' arguments concern circulating fluidized bed EGUs, or CFBs. As relevant here, CFBs differ from conventional pulverized coal units in that CFBs inject air and additional materials, such as limestone, into the combustion zone in order to achieve lower-temperature combustion. At that lower temperature, fuel breaks down to a lesser degree, thus enabling CFBs to control emissions without using add-on controls.

Industry petitioners argue that these design differences required EPA to create a separately regulated subcategory for CFBs. They emphasize that EPA recognized the need for a CFB subcategory in a different rulemaking proceeding, the "Boiler MACT" Rule.

Industry petitioners' CFB-related arguments are unavailing. Contrary to industry petitioners' assertions, nothing in the Clean Air Act "requires" EPA to create a CFB subcategory. Rather, the statute gives EPA substantial discretion in determining whether subcategorization is appropriate. *See* CAA § 112(d)(1), 42 U.S.C. § 7412(d)(1) (EPA "*may* distinguish among classes, types, and sizes of sources") (emphasis added); *see also Nat'l Ass'n of Clean Water Agencies v. EPA*, 734 F.3d 1115, 1159 (D.C. Cir. 2013) ("EPA's subcategorization authority under § 112 involves an expert determination, placing a heavy burden on a challenger to overcome deference to EPA's articulated rational connection between the facts found and the choice made.") (internal quotation marks omitted). EPA's decision not to create a CFB subcategory in the Final Rule is reasonable and well-supported by the record. Among other things, EPA noted that CFBs were among the best and worst performers for various pollutants, indicating that CFBs have emissions profiles similar to other coal-fired units despite their operational differences. *See* Final Rule, 77 Fed. Reg. at 9397.

The record similarly supports EPA's determination that the 0.002 lb/MMBtu hydrogen chloride limit for CFBs is achievable. As noted above, some CFB units were among the top performers for each of the regulated pollutants, including hydrogen chloride. *See id.* The record thus demonstrates that at least some CFB units are in fact able to achieve the hydrogen chloride limit. In any event, the fact that the Final Rule may not be cost effective for all CFBs does not necessarily mean EPA erred in

declining to create a CFB subcategory or in setting emission standards applicable to those units.

EPA's decision to subcategorize CFBs in the Boiler MACT Rule is not to the contrary. There, EPA concluded that CFBs presented relevant differences with respect to carbon monoxide — not mercury, acid gases, or particulates (the pollutants at issue in this rulemaking). *See National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*, 76 Fed. Reg. 15,608, 15,617–18 (Mar. 21, 2011).

Industry petitioners further argue that at a minimum, EPA should have set separate acid gas standards for coal-refuse-fired CFBs. Those units burn waste coal from other coal-mining operations and use the resulting ashes in mine reclamation projects. Industry petitioners maintain that these fuel-ash reuse efforts would be imperiled by the stringency of the acid gas standards in the Final Rule.

We conclude that EPA reasonably decided that separate standards for coal-refuse-fired CFBs were not warranted. Industry petitioners' assertion that the hydrogen chloride standards are unattainable for coal-refuse-fired CFBs is undermined by the fact that some of those units were among the best performers for hydrogen chloride. *See* RTC v.1 at 587. EPA also suggested alternative compliance methods that it says would permit coal-refuse-fired CFBs to continue participating in reclamation efforts. *See* Final Rule, 77 Fed. Reg. at 9412. Regardless, nothing in the CAA obligates EPA to set standards in a way that always

allows the re-use of fuel ash, even if doing so might be a more desirable outcome for some EGU operators.

C.

In contrast to its decision on CFBs, EPA did create a subcategory for lignite-fired EGUs. (Lignite coal is also referred to as "low rank" coal due to its low heat content.) Industry petitioners argue that the emission standard for the lignite subcategory is based on an improperly calculated minimum stringency level, or MACT floor. Industry petitioners also contend that the emission standard set by EPA is not achievable. We consider these arguments in turn.

1. *MACT floor*. Industry petitioners insist that EPA incorrectly calculated the MACT floor for lignite units, rendering that standard arbitrary and capricious. They assert that EPA used "cherry picked" data from the top 6% of units, instead of the top 12% as required by § 112(d)(3)(A). Finally, industry petitioners argue that EPA did not properly account for variability in lignite coal.

Industry petitioners' data-bias argument is similar to the argument made by the State, Industry & Labor petitioners regarding the mercury MACT floor, *supra* Part III.A.3. And, as with that argument, petitioners' assertions regarding the lignite MACT floor find no support in the record. EPA has offered a reasonable, non-biased explanation of its data-collection and analysis process. *See* MACT Floor Memo at 10; RTC v.1 at 559–60.

Industry petitioners' objections regarding the variability of lignite coal likewise fail. EPA accounted for variability due to differing chemical compositions of coal by applying its Upper Prediction Limit analysis. *See* NPRM, 76 Fed. Reg. at 25,041. Industry petitioners do not challenge that analysis itself. They do suggest in passing that EPA's results are flawed, *see* Industry Pet'rs' Br. 10, but offer no explanation as to why that is so. Such cursory treatment is inadequate to place their challenge to EPA's variability analysis before the court, because "it is not enough merely to mention a possible argument in the most skeletal way, leaving the court to do counsel's work, create the ossature for the argument, and put flesh on its bones." *Davis v. Pension Benefit Guar. Corp.*, 734 F.3d 1161, 1166–67 (D.C. Cir. 2013) (internal quotation marks and alterations omitted). While EPA acknowledged that it could not account for all operational variability, it concluded that its variability analysis "is an appropriate method of addressing the concern that these standards must be met at all times." RTC v.1 at 458. EPA's explanation is sufficient to withstand our "extremely deferential" review of this kind of technical judgment. *New York v. Reilly*, 969 F.2d 1147, 1152 (D.C. Cir. 1992).

2. *Beyond-the-floor limit.* EPA is permitted to set a more restrictive, "beyond-the-floor" emission standard if the agency determines that such a standard is "achievable" considering costs, energy requirements, and applicable control technologies. CAA § 112(d)(2), 42 U.S.C. § 7412(d)(2). To be "achievable," a standard "must be capable of being met under most adverse conditions which can

reasonably be expected to recur." *Nat'l Lime Ass'n v. EPA*, 627 F.2d 416, 431 n.46 (D.C. Cir. 1980). In this case, industry petitioners argue that EPA failed to consider the limitations of applicable control technologies. As a result, petitioners contend, EPA's beyond-the-floor standard for lignite-fired EGUs is not achievable because the standard mandates unrealistically high levels of mercury reduction.

We reject petitioners' challenge to the beyond-the-floor standard. EPA concluded during the rulemaking process that the standard for lignite units is achievable if sources increase their use of a particular control technology, activated carbon injection. *See* Beyond-the-Floor Memo at 1–4. According to EPA, increased carbon injection can reduce emissions by up to 90%, well in excess of the reductions necessary to reach beyond-the-floor levels. *Id.* at 1–2. Ultimately, the dispute on this issue amounts to a factual disagreement between EPA and petitioners over the effectiveness of activated carbon injection. Because the record contains no data inconsistent with EPA's position on the efficacy of activated carbon injection, we defer to the agency's determination that the beyond-the-floor emission standard for lignite-fired EGUs is achievable.

D.

Public utility companies are subject to certain state-law contracting requirements that may lengthen the process of installing upgraded controls. That added time, industry petitioners argue, requires EPA to grant a blanket, one-year extension of the compliance deadline to public power companies. We disagree. Once again, petitioners'

argument amounts to a claim that a decision the Clean Air Act leaves to EPA's discretion should instead be mandatory. *See* CAA § 112(i)(3)(B), 42 U.S.C. § 7412(i)(3)(B) (EPA "may issue" an extension under certain circumstances). EPA explained at length why such a blanket extension was inappropriate. *See* Final Rule, 77 Fed. Reg. at 9407, 9409–11. Most importantly, industry petitioners did not show — and likely could not show — that an extension is necessary for the installation of controls at *every* public power company. On the contrary, EPA's data indicated that "most units will be able to fully comply" within the three-year period established by EPA. Final Rule, 77 Fed. Reg. at 9410. EPA's decision not to issue a blanket extension therefore was not arbitrary or capricious.[5]

IV.

We turn to the challenges by Environmental petitioners and Julander Energy Company.

A.

Environmental petitioners challenge the provisions of the Final Rule that allow compliance

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[5] To the extent that petitioners object to EPA's alleged failure to respond to comments on this issue made by public power companies on the ground that this failure violates CAA § 307(d)(6)(B), 42 U.S.C. § 7607(d)(6)(B), we do not address that objection because it was first raised in a pending petition for reconsideration. *See UARG*, 2014 WL 928230, at *4. We also do not address industry petitioners' arguments concerning the standards for petroleum-coke-fired EGUs and liquid oil-fired non-continental EGUs because those arguments were likewise first raised in a pending petition for reconsideration.

with emission standards to be demonstrated through (1) emissions averaging and (2) options for non-mercury metal HAP emissions monitoring. Chesapeake Climate Action Network, Conservation Law Foundation, Environmental Integrity Project, and Sierra Club object to averaging as unlawful; Chesapeake Climate Action Network and Environmental Integrity Project object to the monitoring options as failing to provide reasonable assurance of compliance. They presented their objections (save one) during the comment period and EPA has responded to them. Although the challenges to emissions averaging are also pending before EPA in a petition for reconsideration, and usually would be incurably premature, *see, e.g.*, *Clifton Power Corp. v. FERC*, 294 F.3d 108, 112 (D.C. Cir. 2002), the text and legislative history of the Clean Air Act make clear this usual approach is inapplicable, *see UARG v. EPA*, Nos. 12-1166, 12-1366, 12-1420, 2014 WL 928230, at *3 (D.C. Cir. Mar. 11, 2014); CAA § 307(b)(1), 42 U.S.C. § 7607(b)(1); S. REP. NO. 101-228, at 3755 (1989).

1. *Averaging*. Under the Final Rule, existing contiguous, commonly-controlled EGUs in the same subcategory can demonstrate compliance by averaging their emissions as an alternative to meeting certain requirements on an individual basis. Final Rule, 77 Fed. Reg. at 9384, 9473–76 (codified at 40 C.F.R. § 63.10009). Averaging is permissible only between the same types of pollutants, individual EGUs that are part of the same affected source, EGUs subject to the same emission standard, and existing (not new) EGUs. *Id.* at 9385. Each facility intending to use emissions averaging must develop

an emissions averaging plan identifying "(1) [a]ll units in the averaging group; (2) the control technology installed; (3) the process parameter that will be monitored; (4) the specific control technology or pollution prevention measure to be used; (5) the test plan for the measurement of the HAP being averaged; and (6) the operating parameters to be monitored." *Id.* at 9385–86.

Environmental petitioners contend the averaging alternative is unlawful because it relaxes the stringency of the MACT floor standards. With one exception, EPA set the MACT floor standards based on a thirty-boiler operating day averaging period. *Id.* at 9385, 9479–80. Allowing multiple EGUs to average their emissions data effectively extends, petitioners maintain, the standards' averaging period to sixty days (for two units), ninety days (for three units), or more. In their view, a longer averaging period permits longer and larger pollution spikes because high measurements can be averaged over more hours of normal, lower-pollution operations.

Section 112(d)(3), 42 U.S.C. § 7412(d)(3), provides that emission standards for existing sources "shall not be less stringent" than "the average emission limitation achieved by the best performing 12 percent" of such sources. The subsection (d)(2) "beyond-the-floor" requirement provides that emission standards for new or existing sources "shall require the maximum degree of reduction in emissions of the hazardous air pollutants subject to this section . . . that the Administrator . . .

determines is achievable." CAA § 112(d)(2), 42 U.S.C. § 7412(d)(2).

EPA permissibly interpreted § 112(d) to allow emissions averaging as provided for in the Final Rule. *See Chevron*, 467 U.S. at 843. That section neither expressly allows nor disallows emissions averaging among multiple units. In the Final Rule, EPA stated:

> Averaging across affected units is permitted only if it can be demonstrated that the total quantity of any particular HAP that may be emitted by that portion of a contiguous major source that is subject to the same standards in the [Final Rule] will not be greater under the averaging mechanism than it could be if each individual affected EGU in the subcategory complied separately with the applicable standard. Under this test, the practical outcome of averaging is equivalent to compliance with the MACT floor limits by each discrete EGU, and the statutory requirement that the MACT standard reflect the maximum achievable emissions reductions is, therefore, fully effectuated.

77 Fed. Reg. at 9385. Viewing averaging as "an equivalent, more flexible, and less costly alternative" to requiring units to demonstrate compliance individually, EPA explained that permitting averaging is part of its "general policy of encouraging the use of flexible compliance approaches where they can be properly monitored and enforced." *Id.*

Environmental petitioners concede the averaging alternative will not result in an increase in a source's total emissions beyond the level permitted under the applicable standard, *see* Envtl. Pet'rs' Br. 18, and while theoretically averaging could allow an individual unit's emissions to exceed the standard, under the Final Rule that exceedance must be offset by other, better-performing units to demonstrate compliance. They have not challenged EPA's interpretation of the ambiguous term "source," which EPA defined as referring to "the collection of coal- or oil-fired EGUs . . . within a single contiguous area and under common control," Final Rule, 77 Fed. Reg. at 9366, rather than a single EGU. Because § 112(d)(3), 42 U.S.C. § 7412(d)(3), requires EPA to prescribe emissions limitations for "sources," not units, EPA could permissibly establish a standard that allows averaging within a single source. *Cf. Chevron*, 467 U.S. at 866. Although this may allow individual units to exceed the emissions limitation, the statute does not require EPA to regulate emissions on a unit level.

As EPA has observed, Environmental petitioners' main objection appears to be that the Final Rule does not include a "discount factor" whereby emission rates are reduced for sources using an averaging alternative. Petitioners point, for example, to the discount factor included in the Hazardous Organic NESHAP rule, Envtl. Pet'rs' Br. 9–10, in which EPA determined that "to carry out the mandate of section 112(d)(2), some portion of these cost savings [from averaging] should be shared with the environment

by requiring sources using averaging to achieve more emission reductions than they would otherwise."[6]

To the extent petitioners' objection is that EPA failed to explain why it did not include a discount factor, EPA, in fact, offered a reasonable and adequate explanation. In the Final Rule, EPA explained that "[g]iven the homogeneity of fuels within the rules subcategories, along with other emissions averaging criteria, the Agency believes use of a discount factor to be unwarranted for this rule." Final Rule, 77 Fed. Reg. at 9386. Further, in responding to comments, EPA explained that unlike the Hazardous Organic rule, "which covers a broad number of unit types, products, and processes," EGUs subject to the Final Rule "differ generally only in the fuel used to produce electricity," a difference, EPA concluded, "accounted for . . . by prohibiting units from differing subcategories — which are fuel based — from participating in emissions averaging." RTC v.2 at 361–62. EPA noted as well its agreement that "other safety factors in the rule obviate the need for a discount factor," *id.* at 363, including the requirement averaging start within three years of promulgation of the Final Rule.

The suggestion by Environmental petitioners that EPA improperly relied on its Upper Prediction Limit ("UPL") analysis to mitigate the effect of

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[6] *National Emission Standards for Hazardous Air Pollutants for Source Categories; Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry and Other Processes Subject to the Negotiated Regulation for Equipment Leaks*, 59 Fed. Reg. 19,402, 19,430 (Apr. 22, 1994).

averaging on the stringency of emission standards fares no better. The UPL analysis in the MACT floor calculation is designed to "assess variability of the best performers." NPRM, 76 Fed. Reg. at 25,041. To the extent petitioners point to EPA's statement in responding to comments, they ignore its context. EPA stated that it "disagrees with the suggestion that another variability component need be considered for those EGU owners or operators who choose to engage in emissions averaging; the current UPL analyses was [sic] developed to take factors such as those mentioned by the commenter into account." RTC v.2 at 363. According to Environmental petitioners, "the UPL analyses contain nothing that would eliminate (or even mitigate) the Averaging Alternative's additional relaxation of the standards," and it was therefore inappropriate for EPA to rely on this analysis in support of the Final Rule's emissions averaging provisions. Envtl. Pet'rs' Br. 20. But there is nothing to indicate this is what EPA did. In its statement, EPA was responding to industry comments arguing that because EPA had accounted for individual-unit variability in the UPL analysis in setting MACT floors, it was inappropriate to allow a multi-unit facility to further reduce variability by averaging, without applying a discount factor. It is far too great a stretch to read EPA's response as an admission that EPA relied on its UPL analysis to support emissions averaging.

2. *Monitoring*. The Final Rule provides three alternatives to continuous emissions monitoring to demonstrate compliance with the non-mercury metal HAP standards. They are: (1) use of a continuous

parametric monitoring system ("CPMS"), (2) quarterly performance testing, and (3) performance testing once every three years for qualifying low emitting EGUs. *See Final Rule*, 77 Fed. Reg. at 9466 (codified at 40 C.F.R. § 63.10000(c)(1)(iii-iv)). Environmental petitioners first challenged CPMS in a pending petition for reconsideration, and therefore that challenge is not properly before the court for decision now. *See UARG*, 2014 WL 928230, at *4, *5 n.4.

Any EGU may demonstrate compliance with the non-mercury metal standards through quarterly performance tests. Final Rule, 77 Fed. Reg. at 9372, 9384, 9466. If a unit's emission results for all required tests are less than 50 percent of the applicable emission limit for a three-year period, the EGU may qualify as a low emitting EGU for non-mercury metal HAPs and is then required to conduct performance testing only once every three years, so long as it maintains compliance. *Id.* at 9371, 9466, 9471.

Environmental petitioners maintain that stack testing conducted quarterly or once every three years cannot provide reasonable assurance of compliance with a standard set as a thirty-day emissions rate, given EPA's determination that stack test results are highly variable, and that EPA has failed to explain how compliance options involving long intervals between performance tests and lacking any control of operating conditions between tests can provide sufficiently timely or reliable information to assure compliance. EPA has provided a reasonable explanation for its determination that each of these

monitoring options complies with the statutory requirements of CAA §§ 114 and 504.

Section 504(b), 42 U.S.C. § 7661c(b), provides that "continuous emissions monitoring need not be required if alternative methods are available that provide sufficiently reliable and timely information for determining compliance." Although § 114(a)(3), 42 U.S.C. § 7414(a)(3), "require[s] enhanced monitoring" for major stationary sources, there is "no presumption in favor of any particular type of monitoring." *Sierra Club*, 353 F.3d at 991. EPA has "broad discretion in selecting a monitoring regime that ensures compliance," and as long as it "reasonably articulate[s] the basis for its decision," *id.*, the court will "defer to the informed discretion of the Agency," recognizing that "analysis of this issue requires a high level of expertise," *id.* (quoting *Nat'l Lime*, 233 F.3d at 635).

EPA explained that, in its judgment, "[t]he quarterly stack testing period, coupled with underlying monitoring of control devices or the additional monitoring for liquid oil-fired units, is expected to be frequent enough to ensure that a unit's emissions control devices and processes continue to operate in the same manner as during the previous stack test." RTC v.2 at 93. "If there are significant changes to the operation of the unit or the fuel, then a retest is required to reconfirm that the source remains in compliance under the new operating circumstances." *Id.* EPA acknowledged, with respect to the low emitting EGU option, that the available data "shows an EGU's potential variability," but reasoned that "well-operated EGUs

— such as those qualifying for [low emitting EGU] status — are expected to have much less variable emissions" and that "the requirement to revert to the original monitoring frequency should subsequent emissions testing show the EGUs no longer meet [low emitting EGU] status will keep source owners or operators interested in maintaining [that] status." *Id*. at 244. EPA has provided a reasonable explanation for its determinations that these two monitoring options provide sufficient assurance of compliance with the applicable emission standards.

B.

Julander Energy Company, an oil and natural gas development, exploration, and production company, challenges EPA's decision not to adopt stricter emission standards by requiring "fuel switching" by EGUs from coal to natural gas. It contends that EPA unlawfully relied on a non-statutory factor (prohibition of construction of new coal-fired EGUs), failed to consider a required statutory factor (§ 112's requirement that EPA consider collateral benefits of control options), and reached arbitrary and capricious conclusions about natural gas supply and infrastructure and costs.

As a threshold matter, the court must address Julander's standing. Industry intervenor-respondents contend Julander lacks standing under Article III of the Constitution. In fact, Julander's "injury in fact," causation, and redressability under Article III, *see Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560–61 (1992), are self-evident, *see Sierra Club v. EPA*, 292 F.3d 895, 899–900 (D.C. Cir. 2002), insofar as the Final Rule does not require EGUs to

switch to natural gas, to the detriment of Julander's stated interests, and on remand EPA could require fuel switching. EPA, however, contends Julander lacks "prudential standing" because its interests do not come within the zone-of-interests test articulated in *Association of Data Processing Service Organizations, Inc. v. Camp*, 397 U.S. 150 (1970). The Supreme Court recently clarified that "'prudential standing is a misnomer' as applied to the zone-of-interests analysis," *Lexmark Int'l, Inc. v. Static Control Components, Inc.*, No. 12-873, 2014 WL 1168967, at *6 (U.S. Mar. 25, 2014) (quoting *Ass'n of Battery Recyclers, Inc. v. EPA*, 716 F.3d 667, 675–76 (D.C. Cir. 2013) (Silberman, J., concurring)). The question remains whether Julander's interest is "arguably within the zone of interests to be protected or regulated by the statute." *Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians v. Patchak*, 132 S. Ct. 2199, 2210 (2012) (quoting *Ass'n of Data Processing*, 397 U.S. at 153).

Although the zone-of-interests test "is not meant to be especially demanding," *Clarke v. Secs. Indus. Ass'n*, 479 U.S. 388, 399 (1987), we conclude that Julander falls outside the zone of interests protected by § 112 of the CAA. Notwithstanding our concurring colleague's suggestion, this conclusion is not the result of a "coin flip" to decide which of our precedents to follow. Concurring Op. at 17, 29. The Supreme Court has instructed that "the breadth of the zone of interests varies according to the provisions of law at issue." *Lexmark*, 2014 WL 1168967, at *8 (citation omitted). Accordingly, this court must be guided by those of our precedents that have interpreted § 112, and not those applying other

statutory provisions, including the APA. Those cases hold in the context of challenges to emission standards that competitors of regulated parties fall outside the zone of interests protected by § 112.

In *Association of Battery Recyclers*, 716 F.3d at 674, the court held that a corporation could not challenge EPA's failure to impose more stringent emission standards on its competitors because that interest fell outside the zone of interests protected by § 112. In *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855, 871 (D.C. Cir. 2001), the court similarly held that the purely commercial interests of manufacturers of pollution control equipment seeking more rigorous regulation of their competitors under § 112 were not within the zone of interests that Congress intended to be relied upon to challenge EPA's claimed disregard of the CAA. This was so even though their pecuniary interests in increasing demand for their products were aligned with the goals of the CAA. The court explained that Congress's evident purpose in enacting the CAA was not to compel those sources with less-than-best pollution control to invest in upgraded equipment, but only to meet the standards, as distinct from adopting the methods of emission control, of the best performing sources. *Id*. This court has not read the Supreme Court's decision in *Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians*, 132 S. Ct. 2199, to change the zone-of-interests standard, and the court is bound to follow its own precedent. *See Grocery Mfrs. Ass'n v. EPA*, 693 F.3d 169, 179 (D.C. Cir. 2012); *id.* at 180 (Tatel, J., concurring).

Julander disputes that it is seeking a competitive advantage by increasing the regulatory burden on its competitors, pointing out that as an oil and natural gas development company it is not a direct competitor of the regulated coal- and oil-fired EGUs. It maintains that it is properly characterized as a vendor to, and not a competitor of, the regulated entities. Nonetheless, the reasoning of our binding precedent encompasses Julander's situation. As the court observed in *Hazardous Waste Treatment Council v. EPA*, 861 F.2d 277, 282 (D.C. Cir. 1988), where the Treatment Council, much like Julander, claimed its interests, although pecuniary, were "in sync" with those sought to be served by the Resource Conservation and Recovery Act, the Supreme Court's standard in *Clarke* "leaves the status of this sort of incidental benefit somewhat unclear." In "find[ing] operational meaning for a test that demands less than a showing of congressional intent to benefit but more than a 'marginal[] rela[tionship]' to the statutory purposes," *id.* at 283 (quoting *Clarke*, 479 U.S. at 399), this court acknowledged that even absent an apparent congressional intent to benefit there may still be "some indicator that the plaintiff is a peculiarly suitable challenger of administrative neglect [to] support[] an inference that Congress would have intended eligibility," *id.* But the court rejected the notion that the petitioner's "in sync" interests were more than "marginally related" to Congress's environmental purposes. *Id.*

> Whenever Congress pursues some goal, it is inevitable that firms capable of advancing that goal may benefit. If Congress authorized bank regulators to mandate physical security

> measures for banks, for example, a shoal of security services firms might enjoy a profit potential — detective and guard agencies, manufacturers of safes, detection devices and small arms, experts on entrance control, etc. But in the absence of either some explicit evidence of an intent to benefit such firms, or some reason to believe that such firms would be *unusually suitable champions* of Congress's ultimate goals, no one would suppose them to have standing to attack regulatory laxity. And of course a rule that gave any such plaintiff standing merely because it happened to be disadvantaged by a particular agency decision would destroy the requirement of prudential standing; any party with constitutional standing could sue.

Id. (emphasis added). In *Cement Kiln*, 255 F.3d at 871, the court embraced this analysis as no less applicable to the CAA. The court has further observed that "judicial intervention may defeat statutory goals if it proceeds at the behest of interests that coincide only accidentally with those goals," *Hazardous Waste*, 861 F.2d at 283, and that "open-ended emissions standards" are particularly susceptible to such "manipulation," *Honeywell Int'l Inc. v. EPA*, 374 F.3d 1363, 1371 (D.C. Cir. 2004).

Ethyl Corp. v. EPA, 306 F.3d 1144 (D.C. Cir. 2002), is of no aid to Julander. In that case, the court held that a manufacturer of fuel additives seeking information (through an open process for testing emissions control systems) in order to comply with its own regulatory obligations fell within the zone of

interests protected or regulated by the CAA. *See id.* at 1148. Ethyl had an interest that "appear[ed] congruent with those of the [CAA], *i.e.*, the development of products that will reduce harmful air pollutants," *id.*, without the potential for distortion of the regulatory process of concern to the court in *Hazardous Waste*, 861 F.2d at 285, and *Cement Kiln*, 255 F.3d at 871. Unlike petitioners seeking to increase the regulatory burden on others in order to advance their own commercial interests, Ethyl sought access to information to "improve its products with an eye to conformity to emissions needs" and to "secur[e] EPA approval for its own fuel additive products under the [Clean Air] Act." *Ethyl Corp.*, 306 F.3d at 1147–48. The court emphasized "the interdependence between motor vehicle certification under the Act (the process at stake here) and fuel regulations (under which Ethyl is a direct regulatee)." *Id.* at 1148. Julander, in contrast, seeks stricter regulation of coal- and oil-fired EGUs, not information that would enable it to comply with its own regulatory obligations.

Julander's suggestion that its interests are properly characterized as those of a vendor, not a competitor, is unavailing. It cannot rely on its existing relationship with natural gas-fired EGUs because they are not subject to the Final Rule, 77 Fed. Reg. at 9309. And claiming that it has standing as a potential vendor to coal- and oil-fired EGUs, in the event they were forced to switch to natural gas, is at odds with the reasoning underlying the vendor-vendee line of cases. A vendor has standing "to assert the interest of [regulated] vendees." *Nat'l Cottonseed Products Ass'n v. Brock*, 825 F.2d 482, 490 (D.C. Cir.

1987) (citing *FAIC Secs., Inc. v. United States*, 768 F.2d 352, 360–61 (D.C. Cir. 1985)). Julander is not standing in for the interests of its potential vendees, which, in fact, here challenge Julander's petition. Consequently, the interests of Julander and the regulated industry petitioners are not "two sides of the same coin." *FAIC Secs.*, 768 F.2d at 359.

Julander had the opportunity to submit its views on fuel switching to EPA during the rulemaking proceedings. And it did. *See* Julander Comments Aug. 4, 2011. It could also have sought permission to appear as amicus in this court, which it did not. Absent any reason to conclude that it is an "unusually suitable champion[]" of Congress' goals in the CAA, we hold, consistent with this court's precedent, that Julander's interest in increasing the regulatory burden on others falls outside the zone of interests protected by the CAA and therefore Julander may not proceed as a petitioner in this court.

KAVANAUGH, *Circuit Judge*, concurring in part and dissenting in part: Suppose you were the EPA Administrator. You have to decide whether to go forward with a proposed air quality regulation. Your only statutory direction is to decide whether it is "appropriate" to go forward with the regulation. Before making that decision, what information would you want to know? You would certainly want to understand the benefits from the regulations. And you would surely ask how much the regulations would cost. You would no doubt take both of those considerations – benefits and costs – into account in

making your decision. That's just common sense and sound government practice.

So it comes as a surprise in this case that EPA excluded any consideration of costs when deciding whether it is "appropriate" – the key statutory term – to impose significant new air quality regulations on the Nation's electric utilities. In my view, it is unreasonable for EPA to exclude consideration of costs in determining whether it is "appropriate" to impose significant new regulations on electric utilities. To be sure, EPA could conclude that the benefits outweigh the costs. But the problem here is that EPA did not even consider the costs. And the costs are huge, about $9.6 billion a year – that's billion with a b – by EPA's own calculation.

In Part I of this opinion, I explain my respectful disagreement with the majority opinion's decision to uphold EPA's exclusion of cost from its decisionmaking under this statutory provision.

In Part II of this opinion, I write to address this Court's case law applying the "zone of interests" test under the Administrative Procedure Act. I accept the majority opinion's conclusion that petitioner Julander Energy Corporation – a natural gas company challenging EPA's allegedly unlawful under-regulation of Julander's competitor coal and oil companies – does not fall within the "zone of interests" of the Clean Air Act, at least as the zone of interests test has been applied by some decisions of this Court. But those decisions are inconsistent with other decisions of this Court and, more importantly, are incompatible with a 40-year string of Supreme Court decisions applying the "zone of interests" test.

Put simply, our case law applying the zone of interests test is in a state of disorder and needs to be cleaned up in the near future.

I

These consolidated cases concern EPA's Final Rule, "National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units," 77 Fed. Reg. 9304 (Feb. 16, 2012). The Rule implements provisions of the Clean Air Act, 42 U.S.C. § 7401 *et seq.*, regarding emissions of hazardous air pollutants.

As the majority opinion recounts, the Clean Air Act originally provided EPA substantial discretion to identify and regulate pollution from sources emitting hazardous air pollutants. That approach proved to be time-consuming and largely unworkable, so in 1990 Congress amended the Act to cabin much of EPA's discretion. The 1990 amendments required EPA to identify stationary sources of 189 enumerated hazardous air pollutants and to adopt standards for limiting emissions of those pollutants from those sources. *See* 42 U.S.C. § 7412.[1] Those technology-based standards are commonly referred to as the

[1] Six other common pollutants emitted by stationary sources are regulated under a different section of the Clean Air Act. The National Ambient Air Quality Standards, or NAAQS, prescribe the maximum permissible levels of those six pollutants in the ambient air. *See* 42 U.S.C. § 7409(a)-(b). Under that NAAQS program, EPA must choose levels for emissions of those pollutants which, "allowing an adequate margin of safety, are requisite to protect the public health." *Id.* § 7409(b)(1).

"maximum achievable control technology," or MACT, standards.

EPA uses a two-step process for setting MACT standards. It begins by setting a minimum stringency level, or "floor," based on the performance of the best-performing units in a particular source category. *See id.* § 7412(d)(3). At that first step, EPA may not consider costs. Once the agency sets the statutory floor, it then determines, considering cost and the other factors listed in Section 112(d)(2), whether an even more restrictive standard is "achievable." *Id.* § 7412(d)(2). EPA refers to these stricter requirements as "beyond-the-floor" standards.

The two-step process outlined in Section 112(d) – what I will call the MACT program – applies automatically to most sources of hazardous air pollutants.

But for one category of sources – electric utilities – Congress devised an alternative system as set forth in Section 112(n)(1)(A) of the Act.[2] That alternative system erects two threshold hurdles *before* EPA may regulate electric utilities under the MACT program. *First*, Congress required EPA to "perform a study of the hazards to public health reasonably anticipated to occur as a result of emissions by" electric utilities and report the results of the study to Congress within three years of the enactment of the amendments. *Id.* § 7412(n)(1)(A). *Second,* Congress provided that after the study was completed, EPA

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[2] The electric utilities included in this alternative system are coal- and oil-fired electric utility steam generating units.

could regulate electric utilities under the MACT program only "if the Administrator finds such regulation is *appropriate* and necessary after considering the results of the study." *Id.* (emphasis added).[3]

The meaning of Section 112(n)(1)(A) – particularly the term "appropriate" – is a critical question in this litigation. Industry petitioners and EPA dispute whether EPA, when determining whether regulation of electric utilities under the MACT program is "appropriate," must consider the cost to industry and the public from regulating electric utilities under that program.[4]

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[3] In full, the relevant section of the statute reads: "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." 42 U.S.C. § 7412(n)(1)(A).

[4] The other key statutory term in Section 112(n)(1)(A) – "necessary" – is not in dispute. EPA states that regulation of electric utilities is necessary "if the identified or potential hazards to public health or the environment will not be adequately addressed by the imposition of the requirements of" the Clean Air Act. 76 Fed. Reg. 24,976, 24,987 (May 3, 2011).

EPA thinks not. EPA acknowledges that, in the past, it has interpreted and applied the word "appropriate" in this statute to provide for the consideration of costs. *See* 70 Fed. Reg. 15,994, 16,001 & n.19 (Mar. 29, 2005). But the agency has changed its interpretation. EPA's position now is that EPA may reasonably exclude consideration of costs in determining whether it is "appropriate" to regulate electric utilities under the MACT program. The majority opinion upholds EPA's interpretation.

I respectfully disagree with the majority opinion. It is certainly true, as the majority opinion states, that the word "appropriate" is ambiguous in isolation, and that an agency's reasonable interpretation of an ambiguous statutory term is permissible. *See Chevron U.S.A. Inc. v. NRDC*, 467 U.S. 837 (1984). But the agency's answer must be "a permissible construction of the statute" – or put another way, the agency's interpretation of the ambiguity must be reasonable. *Id.* at 843. Moreover, under the APA, an agency must consider the relevant factors when exercising its discretion under the governing statute. *See Motor Vehicle Manufacturers Association of the United States, Inc. v. State Farm Mutual Automobile Insurance Co.*, 463 U.S. 29, 42-43 (1983).

In this case, whether one calls it an impermissible interpretation of the term "appropriate" at *Chevron* step one, or an unreasonable interpretation or application of the term "appropriate" at *Chevron* step two, or an unreasonable exercise of agency discretion under *State Farm*, the key point is the same: It is entirely

unreasonable for EPA to exclude consideration of costs in determining whether it is "appropriate" to regulate electric utilities under the MACT program.

To begin with, consideration of cost is commonly understood to be a central component of ordinary regulatory analysis, particularly in the context of health, safety, and environmental regulation. And Congress legislated against the backdrop of that common understanding when it enacted this statute in 1990. Put simply, as a matter of common sense, common parlance, and common practice, determining whether it is "appropriate" to regulate requires consideration of costs.

Drawing on his extensive administrative law and regulatory experience, not to mention his experience as a jurist, Justice Breyer has perhaps best explained the centrality of cost consideration to proper regulatory decisionmaking. In order "better to achieve regulatory goals – for example, to allocate resources so that they save more lives or produce a cleaner environment – regulators must often take account of all of a proposed regulation's adverse effects." *Whitman v. American Trucking Associations*, 531 U.S. 457, 490 (2001) (Breyer, J., concurring). That is so because "every real choice requires a decisionmaker to weigh advantages against disadvantages, and disadvantages can be seen in terms of (often quantifiable) costs." *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 232 (2009) (opinion of Breyer, J.). Cost is a particularly salient consideration for administrative agencies today, "in an age of limited resources available to deal with grave environmental problems, where too much

wasteful expenditure devoted to one problem may well mean considerably fewer resources available to deal effectively with other (perhaps more serious) problems." *Id.* at 233. An "absolute prohibition" on considering costs "would bring about irrational results. . . . [I]t would make no sense to require plants to spend billions to save one more fish or plankton. That is so even if the industry might somehow afford those billions." *Id.* at 232-33 (internal citation and quotation marks omitted).

In addition to Justice Breyer, many other leading jurists and scholars on administrative law have likewise recognized that cost generally has to be a relevant factor in the overall regulatory mix. Consider the following:

- Justice Kagan: "[W]hat does it take in a statute to make us say, look, Congress has demanded that the regulation here occur without any attention to costs? In other words, essentially, Congress has demanded that the regulation has occurred in a fundamentally silly way." Transcript of Oral Argument at 13, *EPA v. EME Homer City Generation, L.P.*, No. 12-1182 (U.S. Dec. 10, 2013).[5]

[5] To be clear, I do not read the statutory text at issue in the *EME Homer* case as encompassing costs, at least not in the way EPA argued there. But regardless of how that particular case turns out, the background principle succinctly articulated by Justice Kagan at oral argument reflects the commonsense and well-settled understanding that cost is an essential factor in determining whether it is "appropriate" to regulate.

- Professor Sunstein: "Without some sense of both costs and benefits – both nonmonetized and monetized – regulators will be making a stab in the dark." Cass R. Sunstein, *Cost-Benefit Analysis and the Environment*, ETHICS 351, 354 (2005).

- Professor Sunstein: "A rational system of regulation looks not at the magnitude of the risk alone, but assesses the risk in comparison to the costs." Cass R. Sunstein, *Interpreting Statutes in the Regulatory State*, 103 HARV. L. REV. 405, 493 (1989).

- Professor Sunstein: "[A]ny reasonable judgment will ordinarily be based on some kind of weighing of costs and benefits, not on an inquiry into benefits alone. . . . If the costs would be high and the benefits low, on what rationale should . . . the EPA refuse even to consider the former? There appears to be no good answer. If there is not, the agency's interpretations should be declared unreasonable." Cass R. Sunstein, *Cost-Benefit Default Principles*, 99 MICH. L. REV. 1651, 1694 (2001).

- Professors Revesz and Livermore: "For certain kinds of governmental programs, the use of cost-benefit analysis is a requirement of basic rationality." RICHARD L. REVESZ & MICHAEL A. LIVERMORE, RETAKING RATIONALITY 12 (2008).

- Professor Pierce: "All individuals and institutions naturally and instinctively

> consider costs in making any important decision. . . . [I]t is often impossible for a regulatory agency to make a rational decision without considering costs in some way." Richard J. Pierce, Jr., *The Appropriate Role of Costs in Environmental Regulation*, 54 ADMIN. L. REV. 1237, 1247 (2002).

Every presidential administration for more than three decades has likewise made analysis of costs an integral part of the internal Executive Branch regulatory process. *See generally* Helen G. Boutrous, *Regulatory Review in the Obama Administration: Cost-Benefit Analysis for Everyone*, 62 ADMIN. L. REV. 243, 246-48 (2010). Most recently, in 2011, President Obama issued Executive Order 13,563, which follows an earlier Order issued by President Clinton and followed by President George W. Bush. The Order directs each agency "to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible." 76 Fed. Reg. 3821, 3821 (Jan. 21, 2011). Under President Obama's Executive Order, agencies may proceed with proposed regulations only if the benefits justify the costs. *Id.*

To be clear, Congress may itself weigh the costs of a particular kind of regulation, or otherwise take costs out of the equation, when assigning authority to executive and independent agencies to regulate a particular industry or in a particular area. *See Whitman v. American Trucking Associations*, 531 U.S. 457 (2001) (statutory provision does not include consideration of costs). And even when an agency has to take costs into account, it of course may conclude

that the benefits of a proposed regulation outweigh the costs. Moreover, different agency heads, and different Presidents, may assess and weigh certain benefits and costs differently depending on their overarching philosophies.

But when considering just as a general matter whether it is "appropriate" to regulate, it is well-accepted that consideration of costs is a central and well-established part of the regulatory decisionmaking process.

But EPA did not consider costs here. And EPA's failure to do so is no trivial matter. The estimated cost of compliance with EPA's Final Rule is approximately $9.6 billion per year, *by EPA's own calculation*. 77 Fed. Reg. at 9306, Table 2. To put it in perspective, that amount would pay the annual health insurance premiums of about two million Americans. It would pay the annual salaries of about 200,000 members of the U.S. Military. It would cover the annual budget of the entire National Park Service three times over. Put simply, the Rule is "among the most expensive rules that EPA has ever promulgated." JAMES E. MCCARTHY, CONGRESSIONAL RESEARCH SERVICE, R42144, EPA'S UTILITY MACT: WILL THE LIGHTS GO OUT? 1 (2012).

EPA calculated the $9.6 billion cost figure as part of its Regulatory Impact Analysis accompanying the Rule. That Regulatory Impact Analysis was required by President Obama's Executive Order. Yet EPA's official position in this Court is that the costs identified in the Regulatory Impact Analysis should

have "no bearing on" the determination of whether regulation is appropriate. EPA Br. 55.

On the other side of the ledger, the benefits of this Rule are disputed: Industry petitioners focus on the reduction in hazardous air pollutant emissions attributable to the regulations, which amount to only $4 to $6 million dollars each year. *See* 77 Fed. Reg. at 9428; State, Industry & Labor Br. 21. If those figures are right, the Rule costs nearly $1,500 for every $1 of health and environmental benefit produced. For its part, EPA says it would estimate the benefits at $37 to $90 billion dollars based on what it says are the indirect benefits of reducing PM2.5, a type of fine particulate matter that is not itself regulated as a hazardous air pollutant. *See* 77 Fed. Reg. at 9428.

To be sure, as I have said, EPA may be able to conclude that the benefits outweigh the costs in determining whether it is "appropriate" to regulate electric utilities under the MACT program. But to reiterate, that's not what EPA has done in this Rule. Rather, according to EPA, *it is irrelevant how large the costs are or whether the benefits outweigh the costs in determining whether it is "appropriate" to regulate electric utilities under the MACT program*.

In response to petitioners' claim that the legal issue here has huge real-world consequences, the majority opinion suggests that it may not matter all that much that EPA refused to consider costs in deciding whether it is "appropriate" to regulate electric utilities under the MACT program, because EPA does account for costs in the *second* step of the MACT program, when EPA sets "beyond-the-floor" standards. Maj. Op. at 24. I respectfully find that to

be a red herring. After all, once EPA determines that it is appropriate to regulate electric utilities under the MACT program, costs are not relevant at the *first*, "setting the floor" stage of the MACT program. And meeting that floor will be prohibitively expensive, particularly for many coal-fired electric utilities, regardless of whether EPA decides to go further and set a "beyond-the-floor" standard. So in the real world in which electric utilities operate, the financial burden of complying with that *first* "setting the floor" step of the MACT program – where costs are not considered – will likely knock a bunch of coal-fired electric utilities out of business and require enormous expenditures by other coal and oil-fired electric utilities. Telling someone that costs will be considered in a regulatory step that occurs *after* they have already had to pay an exorbitant amount and may already have been put out of business is not especially reassuring. The majority opinion's attempt to downplay the effects of its decision thus rings a bit hollow.

In downplaying the issue here, the majority opinion also says that the result of this case is that electric utilities will just be treated like other sources. In saying that, the majority opinion, in my respectful view, does not sufficiently account for the fact that treating electric utilities differently from standard sources was the intent of Section 112(n)(1)(A), as revealed by the statutory text. If Congress had intended EPA to consider the costs of regulating electric utilities only when deciding whether to adopt beyond-the-floor standards, and not as a threshold decision in deciding whether to regulate electric utilities under the MACT program

to begin with, it would have done one of two things: It would have either automatically regulated electric utilities under the MACT program, as it did with other sources, or provided that regulation under the MACT program would be automatic if the three-year study found that these sources indeed emitted hazardous air pollutants. That Congress declined to choose either of those options, and instead directed EPA to regulate electric utilities under the MACT program only if "appropriate," reinforces the conclusion that Congress intended EPA to consider costs in deciding whether to regulate electric utilities at the threshold, and not simply at the second beyond-the-floor stage of the MACT program.

Not only does EPA's approach depart from the clear statutory scheme, standard agency decisionmaking, and the common understanding of the term "appropriate" in this regulatory context, it also effectively negates the congressional compromise that was ultimately embodied in the statutory text of the 1990 Act. Under the initial Senate proposal, electric utilities would been have listed as sources under Section 112(c) and therefore automatically regulated under Section 112(d), the MACT program. *See* 3 A LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1990, at 4119, 4418-28 (1993). But the House subsequently modified the Senate bill to make regulation of electric utilities under the MACT program dependent on the results of a study and the Administrator's subsequent determination that regulation was "appropriate" and necessary. *See* 2 *id.* at 2148-49. In the words of the House bill's legislative sponsor, Congressman Oxley, the goal of

the counter-proposal was to provide "protection of the public health *while avoiding the imposition of excessive and unnecessary costs on residential, industrial, and commercial consumers of electricity*." *See* 1 *id.* at 1417 (emphasis added). The House's proposal ultimately prevailed with the Conference Committee "because of . . . the extremely high costs that electric utilities will face under other provisions of the new Clean Air Act amendments." *Id.* at 1416. That Conference Committee view – that EPA should avoid imposing unwarranted financial burdens when deciding to regulate electric utilities – is encapsulated in the textual directive that EPA regulate electric utilities under the MACT program only if "appropriate."

The majority opinion here says that the term "appropriate" is ambiguous. But the Supreme Court often looks to legislative history to help inform interpretation of otherwise ambiguous statutes, including in *Chevron* cases. *See Chevron* 467 U.S. at 843 n.9. And here, the legislative history should resolve any lingering ambiguity on the key point of what "appropriate" encompasses. It establishes that Congress in 1990 chose to impose these threshold requirements on EPA specifically because it wanted EPA to consider costs *before* regulating electric utilities under the MACT program. EPA's interpretation of Section 112(n)(1)(A) in this case upsets Congress's careful balance and stacks the deck in favor of regulation of electric utilities under the MACT program. In effect, EPA's reading of the statute replaces its authority to regulate electric utilities if "appropriate" with a command to regulate electric utilities under the MACT program regardless

of costs. That is not what Congress intended or permitted and thus is beyond EPA's authority. *See Chevron*, 467 U.S. at 843 n.9.

In upholding EPA's cost-blind approach, the majority opinion points to other statutory provisions that expressly reference cost and invokes the familiar interpretive canon that "[w]here Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion." *Russello v. United States*, 464 U.S. 16, 23 (1983). The majority opinion assigns particular weight to the Supreme Court's decision in *Whitman v. American Trucking Associations*, 531 U.S. 457 (2001), which referenced that canon when construing a different section of the Clean Air Act. *See Whitman*, 531 U.S. at 467 ("We have therefore refused to find implicit in ambiguous sections of the CAA an authorization to consider costs that has elsewhere, and so often, been expressly granted."). As in *Whitman*, according to the majority opinion, Congress's decision not to explicitly mention cost in Section 112(n)(1)(A), despite doing so in other parts of the Act, creates a negative implication that costs are an unnecessary consideration.

But I respectfully believe the majority opinion is misreading – or at least over-reading – *Whitman*. *Whitman* was a textualist decision written for a unanimous Court by Justice Scalia. It stands for the basic proposition that consideration of costs cannot be jammed into a statutory factor that, by its terms, otherwise would not encompass "costs," particularly

when other provisions of the Act expressly reference costs. *See Entergy*, 556 U.S. at 223 (*Whitman* "stands for the rather unremarkable proposition that sometimes statutory silence, when viewed in context, is best interpreted as limiting agency discretion.").

In *Whitman* itself, the statutory factor was a provision of the Clean Air Act, Section 109(b)(1), that directed EPA to set ambient air quality standards at levels "requisite to protect the public health" with "an adequate margin of safety." 42 U.S.C. § 7409(b)(1). The dispute concerned whether those "modest words" granted EPA "the power to determine whether implementation costs should moderate national air quality standards." 531 U.S. at 468. Concluding that EPA had not been granted such power, the Court speaking through Justice Scalia observed that cost "is *both* so indirectly related to public health *and* so full of potential for canceling the conclusions drawn from direct health effects that it would surely have been expressly mentioned in §§ 108 and 109 had Congress meant it to be considered." *Id.* at 469.

The statutory provision at issue in *Whitman* differs significantly from the statute at issue here. The statutory provision in *Whitman* tied regulation solely to "public health," which is typically a critical factor *on the other side of the balance* from costs, not a factor that includes costs. Here, by contrast, the key statutory term is "appropriate" – the classic broad and all-encompassing term that naturally and traditionally includes consideration of all the relevant factors, health and safety benefits on the one hand and costs on the other. To unblinkingly rely

on *Whitman* here is to overlook the distinct language of the relevant statutes. *Cf. Michigan v. EPA*, 213 F.3d 663, 677-79 (D.C. Cir. 2000) (the term "significant" "does not in itself convey a thought that significance should be measured in only one dimension," and in "some contexts, 'significant' begs a consideration of costs").

To sum up: All significant regulations involve tradeoffs, and I am very mindful that Congress has assigned EPA, not the courts, to make many discretionary calls to protect both our country's environment and its productive capacity. In this case, if EPA had decided, in an exercise of its judgment, that it was "appropriate" to regulate electric utilities under the MACT program because the benefits outweigh the costs, that decision would be reviewed under a deferential arbitrary and capricious standard of review. *See American Radio Relay League, Inc. v. FCC*, 524 F.3d 227, 247-48 (D.C. Cir. 2008) (separate opinion of Kavanaugh, J.). But before we assess the merits of any cost-benefit balancing, this statutory scheme requires that we first ensure that EPA has actually considered the costs. *See State Farm*, 463 U.S. at 42-43. In my view, whether we call it a *Chevron* problem or a *State Farm* problem, it is unreasonable for EPA to exclude consideration of costs when deciding whether it is "appropriate" to regulate electric utilities under the MACT program. I respectfully dissent from the majority opinion's contrary conclusion.[6]

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[6] On the *Chevron* point, I add one further comment. When the Government wins a *Chevron* case, it may prevail at *Chevron* step one (because the agency's interpretation of the statute is

II

This case implicates another important administrative law issue, the "zone of interests" test under the Administrative Procedure Act.[7] The Court holds that petitioner Julander Energy Company falls outside the "zone of interests" the Clean Air Act is designed to protect and thus cannot challenge the Final Rule. The Court reasons that the concerns raised by Julander, a natural gas production company, are merely to seek more stringent regulation of its coal and oil company competitors. *See* Maj. Op. at 57-58.

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mandated by the statutory language) or at *Chevron* step two (because the agency's interpretation of an ambiguous statute is at least reasonable). In those cases, the step one or step two label may have practical significance, as it may determine whether the agency could try to adopt a contrary interpretation in the future. On the other hand, when the agency loses a *Chevron* case because the agency has adopted an interpretation outside the permissible bounds of the statute, even after reading relevant ambiguities in the agency's favor, there is not much if any practical difference for purposes of future agency action whether we label our decision as *Chevron* step one or *Chevron* step two. *See generally City of Arlington v. FCC*, 133 S. Ct. 1863, 1868, 1874 (2013). So it is here, in my view.

[7] This Court has traditionally referred to the zone of interests test as a component of "prudential standing." As the Supreme Court has recently explained, however, the test does not belong under the "prudential" rubric. *Lexmark International, Inc. v. Static Control Components, Inc.*, No. 12-873 (U.S. Mar. 25, 2014). Instead, whether a plaintiff comes with the "zone of interests" is a statutory question "that requires us to determine, using traditional tools of statutory interpretation, whether a legislatively conferred cause of action encompasses a particular plaintiff's claim." *Id.*, slip op. at 8.

I reluctantly join that portion of the Court's opinion because it is consistent with *some* of this Court's previous decisions applying the zone of interests test. I hasten to add that the decisions on which the Court today relies are inconsistent with other of this Court's precedents. Given that our case law makes this issue a de facto coin flip, I cannot fault an opinion that lands on heads rather than tails.

I am concerned, however, about the erratic inconsistency in our case law. I am even more concerned that our cases holding that competitors are outside the zone of interests – including today's decision – are inconsistent with the governing Supreme Court precedents. I write separately to explain my concerns.

The Supreme Court first announced the APA "zone of interests" test in *Association of Data Processing Service Organizations, Inc. v. Camp*, 397 U.S. 150 (1970) (*Data Processing*). In that case, vendors of data processing services challenged the Comptroller of the Currency's decision to allow competitor national banks to sell the same services. The data processing vendors alleged that the agency decision violated a provision of the National Bank Act. The district court dismissed the case for lack of standing, and the court of appeals affirmed the dismissal. The Supreme Court reversed. For purposes of Article III standing, the Court first said that there was "no doubt" that the petitioners had alleged a sufficient "injury in fact." *Id.* at 152. In reaching that conclusion, the Court rejected the then-prevailing requirement that plaintiffs show

that a defendant's actions invaded a "legal interest" belonging to the plaintiff. *Id.* at 153. The Court instead adopted the now-familiar "injury in fact" test.

For purposes of the APA, the Court added that the separate question of being able to sue under the APA "concerns, apart from the 'case' or 'controversy' test, the question whether the interest sought to be protected by the complainant is arguably within the zone of interests to be protected or regulated by the statute or constitutional guarantee in question." *Id.* And the Court said that the "zone of interests" requirement was satisfied by the plaintiffs in *Data Processing*, who were competitors of the national banks. The Court noted with approval the "trend . . . toward enlargement of the class of people who may protest administrative action." *Id.* at 154. In keeping with that trend, the Court refused to take an overly restrictive view of "the generous review provisions" of the APA, which the Court noted should be construed "not grudgingly but as serving a broadly remedial purpose." *Id.* at 156.[8]

The Supreme Court reaffirmed its broad understanding of the zone of interests test in *Arnold Tours, Inc. v. Camp*, 400 U.S. 45 (1970) and

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[8] Although *Data Processing* referenced the Administrative Procedure Act, the opinion did not explicitly tie the zone of interests test to the text of the APA. The Court subsequently clarified that the zone of interests test is a "gloss" on Section 702 of the APA, which grants the right to judicial review of an agency action to any person "adversely affected or aggrieved" by that action. *See Clarke v. Securities Industry Association*, 479 U.S. 388, 395, 400 n.16 (1987).

Investment Company Institute v. Camp, 401 U.S. 617 (1971). The plaintiffs in both cases were competitors of national banks. Both cases concerned decisions by the Comptroller of the Currency to authorize national banks to offer new services to customers: travel services in *Arnold Tours* and investment services in *Investment Company Institute*. And in both cases, the Court held that plaintiffs who would have to compete with the banks under the new regulations satisfied the zone of interests test and could challenge the Comptroller's decision. *See Arnold Tours*, 400 U.S. at 46; *Investment Company Institute*, 401 U.S. at 620-21.

Notably, Justice Harlan dissented in *Investment Company Institute* because there was no evidence of "any congressional concern for the interests of petitioners and others like them in freedom from competition." *Investment Company Institute*, 401 U.S. at 640 (Harlan, J., dissenting). But that fact, the Court held, was not fatal to the plaintiffs' case; it was enough to satisfy the zone of interests test that Congress, for its own reasons, "did legislate against the competition that the petitioners challenge." *Id.* at 621 (majority opinion).

Thus, at the time of its inception, the zone of interests test was understood to be part of a broader trend toward *expanding* the class of persons able to bring suits under the APA challenging agency actions. *See Copper & Brass Fabricators Council, Inc. v. Department of the Treasury*, 679 F.2d 951, 953 n.2 (D.C. Cir. 1982) (R.B. Ginsburg, J., concurring) (in each of the Supreme Court's first four zone of interests decisions, the Court "utilized the 'zone' test

to reverse lower court decisions which had held that the respective plaintiffs lacked standing"). Although the Supreme Court was cognizant of the dangers of freely permitting judicial review of agency decisions, it nonetheless "struck the balance in a manner favoring review," as the Court later described it, excluding only "those would-be plaintiffs not even arguably within the zone of interests to be protected or regulated by the statute." *Clarke v. Securities Industry Association*, 479 U.S. 388, 397 (1987) (internal quotation marks omitted).

And importantly for present purposes, the Supreme Court in those early zone of interest cases specifically held that the class of persons who could sue specifically included plaintiffs who were complaining about what they alleged was unlawfully lax agency regulation of the plaintiffs' competitors. The theory was simple: Competitors, almost by definition, are among the class of people "arguably" to be "protected" when Congress limited the activities of other competitors in the relevant industry. So absent a discernible congressional intent *to preclude suit* by the plaintiffs, the suit could proceed.

In the years following *Data Processing*, however, this Court appeared to resist the Supreme Court's direction on competitor suits under the zone of interests test. This Court's cases still said, for example, that the zone of interests test required "some indicia – however slight – that the litigant before the court was intended to be protected" by the statute providing a cause of action. *See, e.g.*, *Copper*

& Brass Fabricators, 679 F.2d at 952 (majority opinion).

In *Clarke v. Securities Industry Association*, 479 U.S. 388 (1987), however, the Supreme Court reaffirmed that it meant what it said in *Data Processing*. And the Court in *Clarke explicitly* stated that D.C. Circuit cases had incorrectly departed from *Data Processing*. *See id.* at 400 n.15.

Clarke was another case in which some plaintiffs argued that the Comptroller of the Currency's regulation of the plaintiffs' competitors was unduly lax. Specifically, securities brokers challenged the Comptroller's decision to exempt certain bank offices that offered brokerage services from restrictions on branch banking. The Court began its analysis by clarifying that although the zone of interests test was "basically one of interpreting congressional intent," the inquiry did *not* require a congressional intent to benefit the plaintiff class. *Clarke*, 479 U.S. at 394, 399-400. Rather, suits would be allowed unless a "congressional intent to preclude review" in suits by the plaintiffs was "fairly discernible." *Id.* at 403 (citing *Block v. Community Nutrition Institute*, 467 U.S. 340, 351 (1984)) (internal quotation marks omitted). The zone of interests test "is a guide for deciding whether, in view of Congress' evident intent to make agency action presumptively reviewable, a particular plaintiff should be heard to complain of a particular agency decision. In cases where the plaintiff is not itself the subject of the contested regulatory action, the test denies a right of review if the plaintiff's interests are so marginally related to or inconsistent with the purposes implicit in the

statute that it cannot reasonably be assumed that Congress intended to permit the suit. The test is not meant to be especially demanding." *Id.* at 399.

In sum, *Clarke* confirmed the capacious view of the zone of interests requirement announced in *Data Processing* and similar cases. It reaffirmed the presumption in favor of allowing suit and made clear that the suit should be allowed unless the statute evinces discernible congressional intent to preclude review. *See* 3 RICHARD J. PIERCE, JR., ADMINISTRATIVE LAW TREATISE § 16.9, at 1521 (5th ed. 2010) ("An injured plaintiff has standing under the APA unless Congress intended to preclude judicial review at the behest of parties in plaintiff's class.").

And most importantly for our purposes, *Clarke* confirmed that competitors were presumptively within the zone of interests under the APA when challenging allegedly lax regulation of other competitors in the relevant industry, absent discernible evidence of contrary congressional intent. *See id.* at 403 ("competitors who allege an injury that implicates the policies of the National Bank Act are very reasonable candidates to seek review of the Comptroller's rulings").

As one respected commentator has summarized the Supreme Court's case law: "It is hardly a caricature to say that the current law is this: Businesses desiring to complain that the government is regulating their competitors with insufficient stringency are *invariably and automatically* held to fall within the zone of interests of any allegedly violated statute . . . ." Jonathan R. Siegel, *Zone of*

Interests, 92 GEO. L.J. 317, 347 (2004) (emphasis added).

Despite the apparent clarity of *Clarke* – and its explicit disapproval of this Court's zone of interests cases – some of this Court's post-*Clarke* decisions nonetheless still have barred competitors from suing because they are purportedly outside the zone of interests. For example, in *Hazardous Waste Treatment Council v. EPA*, 861 F.2d 277 (D.C. Cir. 1988) – a case on which the Court today relies – we considered a claim by waste treatment companies that EPA's waste disposal standards were unduly lax toward some competitors of the waste treatment companies. *Id.* at 283. As I read the cases, *Clarke*, *Data Processing*, *Investment Company*, and *Arnold Tours* had contemplated that the zone of interests test would be satisfied in such a scenario. Nevertheless, in *Hazardous Waste*, we held that the plaintiffs did not fall within the zone of interests "in the absence of either some explicit evidence of an intent to benefit such firms, or some reason to believe that such firms would be unusually suitable champions of Congress's ultimate goals." *Hazardous Waste*, 861 F.2d at 283.

In my view, that language in *Hazardous Waste* is difficult to square with what the Supreme Court said in *Clarke* and earlier cases.[9] In those cases, the Supreme Court had specifically said that there does *not* need to be evidence of an intent to benefit the plaintiff class. In fact, the Supreme Court said that

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[9] Chief Judge Wald stated as much at the time. *See Hazardous Waste Treatment Council v. Thomas*, 885 F.2d 918, 931 (D.C. Cir. 1989) (Wald, C.J., dissenting).

suit should be allowed unless there was a discernible congressional intent *to preclude suit* by the plaintiff class. In other words, this Court's cases seemingly flipped the presumption in favor of allowing suit by competitor plaintiffs to a presumption against allowing suit by competitor plaintiffs.

The confusion in our case law has only grown in the years following *Hazardous Waste*. Sometimes we allow competitors to sue, opining, for example, that we "take from" cases like *Clarke* "the principle that a plaintiff who has a competitive interest in confining a regulated industry within certain congressionally imposed limitations may sue to prevent the alleged loosening of those restrictions." *First National Bank & Trust Co. v. National Credit Union Administration*, 988 F.2d 1272, 1277 (D.C. Cir. 1993); *see, e.g.*, *Sherley v. Sebelius*, 610 F.3d 69, 75 (D.C. Cir. 2010) (allowing doctors to sue because of allegedly illegal agency under-regulation of other doctors: "Because the Act can plausibly be interpreted to limit research involving" embryonic stem cells, "the Doctors' interest in preventing the NIH from funding such research is not inconsistent with the purposes of the Amendment. . . . [T]hat is all that matters."); *Honeywell International Inc. v. EPA*, 374 F.3d 1363, 1370 (D.C. Cir. 2004) (allowing chemical manufacturer to sue because of allegedly illegal agency under-regulation of competing chemicals: "If there is reason to believe that a party's interest in statutory enforcement will advance, rather than hinder, the operation of a statute, the court can reasonably assume that Congress intended to permit the suit."); *Ethyl Corp. v. EPA*, 306 F.3d 1144, 1148 (D.C. Cir. 2002) (allowing manufacturer

of fuel additives to sue because of allegedly illegal under-regulation of automobile manufacturers: zone of interests "includes not only those challengers expressly mentioned by Congress, but also unmentioned potential challengers that Congress would have thought useful for the statute's purpose"); *Wabash Valley Power Association, Inc. v. FERC*, 268 F.3d 1105, 1112 (D.C. Cir. 2001) (allowing power association to sue because of allegedly illegal under-regulation of merging utility companies: "In this case, as a competitor crying foul, Wabash satisfies prudential standing requirements."); *Mova Pharmaceutical Corp. v. Shalala*, 140 F.3d 1060, 1076 (D.C. Cir. 1998) (allowing drug manufacturer to sue because of allegedly illegal agency under-regulation of other drug manufacturer: "Upjohn's interest in limiting competition for its product is, by its very nature, linked with the statute's goal of limiting competition between generic manufacturers.") (internal citation and quotation marks omitted); *see also Amgen, Inc. v. Smith*, 357 F.3d 103, 109 (D.C. Cir. 2004) ("Parties motivated by purely commercial interests routinely satisfy the zone of interests test under this court's precedents.").

But other times, as in *Hazardous Waste*, we say exactly the opposite, that competitors are not within the zone of interests and are barred from suing. *See, e.g.*, *Association of Battery Recyclers, Inc. v. EPA*, 716 F.3d 667, 674 (D.C. Cir. 2013) (lead smelter could not object to lax regulation of other lead smelters: plaintiff objected "not to any regulatory burden imposed on it but instead to the absence of regulatory burdens imposed on its competitors");

Grocery Manufacturers Association v. EPA, 693 F.3d 169, 179 (D.C. Cir. 2012) (food producers could not object to lax regulation of ethanol producers who compete with food producers in market to purchase corn);[10] *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855, 871 (D.C. Cir. 2001) (hazardous waste combustors could not object to lax regulation of competing combustors: "the Council's interest lies only in increasing the regulatory burden on others"); *ANR Pipeline Co. v. FERC*, 205 F.3d 403, 408 (D.C. Cir. 2000) (natural gas pipeline operator could not object to lax regulation of competitor's pipeline: plaintiff's "only concern is with suppressing competition from Nautilus, and that economic interest is not within the zone of interests protected by NEPA"); *Liquid Carbonic Industries Corp. v. FERC*, 29 F.3d 697, 705 (D.C. Cir. 1994) (industrial gas corporation could not object to lax regulation of competitor's facilities: "There being no indication that Congress intended to benefit a second-tier competitor, Liquid Carbonic does not have standing as an intended beneficiary.").

Those competing lines of cases have developed without any apparent distinguishing principle. Having carefully reviewed all of them together in one sitting, I frankly cannot find a clear line to separate the cases where we have found competitors to be

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[10] In *Grocery Manufacturers Association v. EPA*, 693 F.3d 169 (D.C. Cir. 2012), we addressed an additional question of whether the zone of interests test is a jurisdictional requirement. The Supreme Court has since made clear that the zone of interests test is not jurisdictional. *See Lexmark International, Inc. v. Static Control Components, Inc.*, No. 12-873, slip op. at 9 n.4 (U.S. Mar. 25, 2014).

within the zone of interests from the cases where we have not.

Moreover, there is nothing in the Clean Air Act that poses a stricter limit on competitor suits than in APA cases involving other statutes. The default rule set forth by the Supreme Court for APA cases is that competitors may sue, unless the substantive statute at issue excludes such suits. Nothing in the Clean Air Act indicates an intent to exclude competitor suits. And it is surely not incongruent with the Clean Air Act to allow competitor suits. By definition, a successful competitor suit would mean that the source would have to comply with stricter Clean Air Act limits. Put simply: Allowing competitor suits in Clean Air Act cases will mean cleaner air. Excluding competitor suits in Clean Air Act cases will mean dirtier air.

Apart from our case law's internal inconsistency, the larger problem, as I see it, is that the line of cases in this Court that have held that competitors are outside the zone of interests is out of step with the Supreme Court's case law from *Data Processing* to *Clarke*. What is more, the Supreme Court's cases since *Clarke* have only reinforced the broad conception set forth in *Data Processing* and *Clarke*. *See, e.g.*, *National Credit Union Administration v. First National Bank & Trust Co.*, 522 U.S. 479, 493-94 (1998) ("As competitors of federal credit unions, respondents certainly have an interest in limiting the markets that federal credit unions can serve, and the NCUA's interpretation has affected that interest by allowing federal credit unions to increase their customer base."); *see also Air Courier Conference of*

America v. American Postal Workers Union, AFL-CIO, 498 U.S. 517, 529 (1991) ("*Clarke* is the most recent in a series of cases in which we have held that competitors of regulated entities have standing to challenge regulations."); *Lexmark International, Inc. v. Static Control Components, Inc.*, No. 12- 873, slip op. at 11 (U.S. Mar. 25, 2014) (a "lenient approach" to the zone of interests test "is an appropriate means of preserving the flexibility of the APA's omnibus judicial-review provision, which permits suit for violations of numerous statutes of varying character that do not themselves include causes of action for judicial review").

Among the Supreme Court's post-*Clarke* decisions is *Match-E-Be-Nash-She-Wish Band of Pottawatomi Indians v. Patchak*, 132 S. Ct. 2199 (2012). Although not a competitor case, the reasoning of *Match-E* reinforces *Data Processing* and *Clarke*, and reaffirms the Supreme Court's broad conception of the zone of interests under the APA.

Writing for the Court in *Match-E*, Justice Kagan reiterated that the zone of interests requirement is a low bar: The test "is not meant to be especially demanding. We apply the test in keeping with Congress's evident intent when enacting the APA to make agency action presumptively reviewable. *We do not require any indication of congressional purpose to benefit the would-be plaintiff*. And we have always conspicuously included the word 'arguably' in the test to indicate that the benefit of any doubt goes to the plaintiff. The test forecloses suit only when a plaintiff's interests are so marginally related to or inconsistent with the purposes implicit in the statute

that it cannot reasonably be assumed that Congress intended to permit the suit." *Id.* at 2210 (emphasis added) (footnote, citation, and some internal quotation marks omitted).

Match-E reaffirmed – in line with *Data Processing* and *Clarke* – that the plaintiff need not be among a class that Congress intended to benefit in the statute at hand. And *Match-E* further reaffirmed that a wide variety of interests, including economic interests related to the agency's allegedly unlawful action with respect to *someone else*, fall within the zone of interests. There, a residential property owner claimed that the Interior Department violated federal law when it acquired a parcel of land for use by a nearby Indian tribe as a casino. *See id.* at 2202-03. All agreed that the federal statute was not designed to benefit a property owner who objects when the Federal Government acquires another property owner's land in order to help Indians. *See id.* at 2210 n.7. The Supreme Court nonetheless concluded that the zone of interests test was satisfied. The Supreme Court said that "neighbors to the use (like Patchak) are reasonable – indeed, predictable – challengers of the Secretary's decisions: Their interests, *whether economic, environmental, or aesthetic*, come within § 465's regulatory ambit." *Id.* at 2212 (emphasis added).

Given its music and its words, *Match-E* should have put a final end to this Court's crabbed approach to the zone of interests test. But our Court has still continued since *Match-E* to hold – at least in some cases – that the zone of interests test prevents businesses from complaining about allegedly illegal

agency under-regulation of their competitor businesses. *See, e.g.*, *Association of Battery Recyclers*, 716 F.3d at 674; *Grocery Manufacturers Association*, 693 F.3d at 179.

Put simply, our current zone of interests case law is inconsistent and unpredictable. Perhaps most troubling, our cases holding that competitors are outside the zone of interests are inconsistent with Supreme Court precedent, as I read it. In my respectful view, too much is at stake in the administrative process, for health, safety, and environmental regulation, and for the economic interests affected by these cases for us to continue muddling along in this way. This state of affairs should receive a careful examination at some point in the near future. Whether a party can sue in court to challenge illegal agency action on such important matters should not come down to the equivalent of a coin flip. We can do better.

* * *

I respectfully dissent from the majority opinion's conclusion that EPA may reasonably exclude consideration of costs when deciding whether it is appropriate to regulate electric utilities under the MACT program. And on the zone of interests test, I accept the majority opinion's conclusion that Julander falls outside the zone of interests, at least under some of our precedents. But in my view, those precedents are not consistent with other decisions of this Court or with the Supreme Court's case law and should be corrected in due course.

Section 112 of the Clean Air Act (Title 42 U.S.C. § 7412) provides, in relevant part:

§ 7412. Hazardous air pollutants

(a) Definitions

For purposes of this section, except subsection (r) of this section—

(1) Major source

The term "major source" means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. The Administrator may establish a lesser quantity, or in the case of radionuclides different criteria, for a major source than that specified in the previous sentence, on the basis of the potency of the air pollutant, persistence, potential for bioaccumulation, other characteristics of the air pollutant, or other relevant factors.

* * *

(c) List of source categories

(1) In general

1990, the Administrator shall publish, and shall from time to time, but no less often than every 8 years, revise, if appropriate, in response to public comment or new information, a list of all categories and

subcategories of major sources and area sources (listed under paragraph (3)) of the air pollutants listed pursuant to subsection (b) of this section. To the extent practicable, the categories and subcategories listed under this subsection shall be consistent with the list of source categories established pursuant to section 7411 of this title and part C of this subchapter. Nothing in the preceding sentence limits the Administrator's authority to establish subcategories under this section, as appropriate.

(2) Requirement for emissions standards

For the categories and subcategories the Administrator lists, the Administrator shall establish emissions standards under subsection (d) of this section, according to the schedule in this subsection and subsection (e) of this section.

* * *

(n) Other provisions

(1) Electric utility steam generating units

(A) 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.

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Part II

Environmental Protection Agency

40 CFR Parts 60 and 63

National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units; Final Rule

77 Fed. Reg. 9304, 9327 (Feb. 16, 2012):

* * *

The commenters next argue that the Agency is compelled by the statute to consider costs based on a dictionary definition of 'appropriate" and the CAA section 112(n)(1)(A) direction to consider alternative

control strategies for regulating HAP emissions in the Utility Study.

Concerning the definition of "appropriate", commenters stated:

> Not only is it "reasonable" for EPA to consider costs in determining whether it is "appropriate" to regulate EGU HAP emissions, a natural reading of the term indicates that excluding the consideration of costs would be entirely unreasonable. Something may be found to be "appropriate" where it is "specially suitable," "fit," or "proper." *See* Webster's Third New International Dictionary at 106 (1993). The term "appropriate" carries with it the connotation of something that is "suitable or proper in the circumstances." *See* New Oxford American Dictionary (2d Ed. 2005) at 76. Considering the costs associated with undertaking a particular action is inextricably linked with any determination as to whether that action is "specially suitable" or "proper in the circumstances."

The EPA believes the definition of "appropriate" that the commenters provide wholly support its interpretation and nothing about the definition compels a consideration of costs. It is appropriate to regulate EGUs under CAA section 112 because EPA has determined that HAP emissions from EGUs pose hazards to public health and the environment, and section 112 is "specially suitable" for regulating HAP emissions, and Congress specifically designated CAA section 112 as the "proper" authority for regulating

HAP emissions from stationary sources, including EGUs. Section 112 of the CAA is "suitable [and] proper in the circumstances" because EPA has identified a hazard to public health and the environment from HAP emissions from EGUs and Congress directed the Agency to regulate HAP emissions from EGUs under that provision if we make such a finding. Cost does not have to be read into the definition of "appropriate" as commenter suggests. In addition, as stated elsewhere in response to comments, the Agency does not consider costs in any listing or delisting determinations, and the EPA maintains that it is reasonable to assess whether to list EGUs (*i.e.* the appropriate and necessary finding) without considering costs.

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Part II
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40 CFR Parts 60 and 63

National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units; Proposed Rule

76 Fed. Reg. 24,976, 24,987–88 (May 3, 2011):

* * *

2. Interpretation of Key Terms

Section 112(n)(1)(A) itself provides no clear standard to govern EPA's analysis and determination of whether it is "appropriate and

necessary" to regulate utilities under section 112. The statute simply requires EPA to regulate EGUs under section 112 if it determines that such regulation is appropriate and necessary, after considering the results of the Utility Study. As noted above, courts have interpreted the terms appropriate and necessary as conveying considerable discretion to the Agency in determining what is appropriate and necessary in a given context.

As explained more fully below, in this context, we interpret the statute to require the Agency to find it *appropriate* to regulate EGUs under CAA section 112 if the Agency determines that the emissions of one or more HAP emitted from EGUs pose an identified or potential hazard to public health or the environment at the time the finding is made. If the Agency finds that it is *appropriate* to regulate, it must find it *necessary* to regulate EGUs under section 112 if the identified or potential hazards to public health or the environment will not be adequately addressed by the imposition of the requirements of the CAA. Moreover, it may be *necessary* to regulate utilities under section 112 for a number of other reasons, including, for example, that section 112 standards will assure permanent reductions in EGU HAP emissions, which cannot be assured based on other requirements of the CAA.

The following subsections describe in detail our interpretation of the key statutory terms. We also explain below how the interpretations set forth in this notice are wholly consistent with the December 2000 Finding. Further, to the extent our interpretation differs from that set forth in the 2005

Action, we explain the basis for that difference and why the interpretation, as set forth in this preamble, is reasonable. *See National Cable & Telecommunications Ass'n, et al.* v. *Brand X Internet Services, et al.,* 545 U.S. 967, 981 (2005) (Discussing the deference provided to an Agency when changing interpretations the Court stated "change is not invalidating, since the whole point of *Chevron* deference is to leave the discretion provided by ambiguities of a statute with the implementing agency.") (Internal citations and quotations omitted); *see* also *Department of Treasury* v. *FLRA,* 494 U.S. 922, 933 (1990) (Finding that EPA's judgment should only be overturned if it is deemed unreasonable, not merely because other, reasonable alternatives exist).

a. "Appropriate" To Regulate EGUs

We interpret section 112(n)(1)(A) to require the Agency to find regulation of EGUs under section 112 appropriate if we determine that HAP emissions from EGUs pose a hazard to public health or the environment at the time the finding is made. The hazard to public health or the environment may be the result of HAP emissions from EGUs alone or the result of HAP emissions from EGUs in conjunction with HAP emissions from other sources. In addition, EPA must find that it is appropriate to regulate EGUs if it determines that any single HAP emitted by utilities poses a hazard to public health or the environment. We further interpret the term "appropriate" to not allow for the consideration of costs in assessing whether HAP emissions from EGUs pose a hazard to public health or the environment. Finally, we may conclude that it is

appropriate, in part, to regulate EGUs if we determine that there are controls available to address HAP emissions from EGUs.

i. Basis for Interpretation

As stated above, the appropriate finding may be based on hazards to public health or the environment. Although we believe that Congress' primary concern, as expressed in section 112(n)(1)(A) and 112(n)(1)(C), related to hazards to public health, the inclusion of environmental effects in section 112(n)(1)(B) indicates Congress' interest in protecting the environment from HAP emissions from EGUs as well.

Moreover, the term "appropriate" is extremely broad and nothing in the statute suggests that the Agency should ignore adverse environmental effects in determining whether to regulate EGUs under section 112. Further, had Congress intended to prohibit EPA from considering adverse environmental effects in the "appropriate" finding, it would have stated so expressly. Absent clear direction to the contrary, and considering the purpose of the CAA (*see e.g.,* CAA section 101, 112(c)(9)(B)(ii)), it is reasonable to consider environmental effects in evaluating the hazards posed by HAP emitted from EGUs when assessing whether regulation of EGUs under section 112 is appropriate. Accordingly, we interpret the statute to authorize the Agency to base the appropriate finding on either hazards to public health or the environment.

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Environmental Protection Agency

40 CFR Part 63

Revision of December 2000 Regulatory Finding on the Emissions of Hazardous Air Pollutants From Electric Utility Steam Generating Units and the Removal of Coal- and Oil-Fired Electric Utility Steam Generating Units From the Section 112(c) List; Final rule.

70 Fed. Reg. 15,994, 16,000-01 (March 29, 2005):

* * *

b. EPA's interpretations of the terms "appropriate" and "necessary." (i) Appropriate. In December 2000, EPA found that it was appropriate to regulate coal- and oil-fired Utility Units under section 112. At that time, we did not provide an interpretation of the term "appropriate." Instead, we focused on the following facts and circumstances. We first found

that it was "appropriate" to regulate coal- and oil-fired Utility Units under section 112 because "mercury in the environment presents significant hazards to public health." *See* 65 FR 79830. We also determined that it was appropriate to regulate oil-fired Utility Units based on the uncertainties "regarding the extent of the public health impact from HAP emissions from" such units. *See* 65 FR 79830. Finally, we found that it was appropriate to regulate HAP emissions from coal-and oil-fired units under section 112 because we had identified control options that we anticipated would effectively reduce certain HAP emissions. We also indicated that certain control options could "greatly reduc[e] mercury control costs." *See* 65 FR 79830.

In January 2004, we proposed reversing our "appropriate" finding in large part. Specifically, we proposed that it is not "appropriate" to regulate coal-fired units on the basis of non-Hg HAP and oil-fired units on the basis of non-Ni HAP because the record that was before the Agency in December 2000 indicates that emissions of such pollutants do not result in hazards to public health. *See* Section IV.B.

Webster's dictionary defines the term "appropriate" to mean "especially suitable or compatible." Miriam-Webster's Online Dictionary, 10th ed. Determining whether something is "especially suitable or compatible" for a particular situation requires consideration of different factors. In section 112(n)(1)(A), Congress requires EPA to determine whether it is "appropriate" to regulate Utility Units under section 112. In making this determination, we begin as we did in December 2000,

by assessing the paramount factor, which is whether the level of utility HAP emissions remaining "after imposition of the requirements of th[e] Act" would result in hazards to public health. We determine whether the remaining utility HAP emissions cause hazards to public health by analyzing available health effects data and assessing, among other things, the uncertainties associated with those data, the weight of the scientific evidence, and the extent and nature of the health effects. See Section VI. If the remaining HAP emissions from Utility Units do not result in hazards to public health, EPA does not believe that it would be "especially suitable"—*i.e.*, "appropriate"—to regulate such units under section 112. In this situation, there would be no need to consider any additional factors under the "appropriate" inquiry because the threshold fact critical to making a finding that it is appropriate to regulate Utility Units under section 112 would be missing.

Even if the remaining utility HAP emissions cause hazards to public health, it still may not be appropriate to regulate Utility Units under section 112 because there may be other relevant factors particular to the situation that would lead the Agency to conclude that it is not "especially suitable" or "appropriate" to regulate Utility Units under section 112. For example, it might not be appropriate to regulate the utility HAP emissions remaining "after imposition of the requirements of th[e] Act," if the controls mandated under section 112(d) would be ineffective at eliminating or reducing the identified hazards to public health. Similarly, it might not be appropriate to regulate the remaining utility HAP

emissions under section 112 if the health benefits expected as the result of such regulation are marginal and the cost of such regulation is significant and therefore substantially outweighs the benefits. These examples illustrate that situation-specific factors, including cost, may affect whether it "is appropriate" to regulate utility HAP emissions under section 112.[19] (See Section 112(n)(1)(A).)

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[19] Nothing precludes EPA from considering costs in assessing whether regulation of Utility Units under section 112 is appropriate in light of all of the facts and circumstances presented. The DC Circuit has indicated that regulatory provisions should be read with a presumption in favor of considering costs: "It is only where there is 'clear congressional intent to preclude consideration of cost' that we find agencies barred from considering costs. [Citations omitted.]" *Michigan* v. *EPA*, 213 F.3d 663, 678 (DC Cir. 2000), cert. den., 532 U.S. 903 (2001) (upholding EPA's interpretation of "contribute significantly" under CAA section 110(a)(2)(D) to include a cost component). The Supreme Court's decision in *Whitman* v. *American Trucking Assn's (ATA)*, Inc., 531 U.S. 457 (2001), is not to the contrary. In that case, the Court held that EPA lacked authority to consider costs in the context of setting the national ambient air quality standards under CAA section 109(b)(1), because the "modest words 'adequate margin' and 'requisite' " in that section do not "leave room" to consider cost. 531 U.S. 466. By contrast, EPA is not setting emission standards in today's action, but rather determining, as Congress directed, whether it is "appropriate" and "necessary" to regulate Utility U nits under CAA section 112. The terms "appropriate" and "necessary" are broad terms, which by contrast to the terms at issue in ATA do, in fact, leave room for consideration of costs in deciding whether to regulate utilities under section 112. Moreover, the legislative history of section 112(n) indicates that Congress intended for EPA to consider costs. See 136 Cong. Rec. H12911, 12934 (daily ed. Oct. 26, 1990) (statement of Rep. Oxley) ("[T]he conference committee produced a utility air toxics provision that will provide ample

It cannot be disputed that Congress under section 112(n)(1)(A) entrusted EPA to exercise judgment by evaluating whether regulation of Utility Units under section 112 is, in fact, "appropriate." We believe that in exercising that judgment, we have the discretion to examine all relevant facts and circumstances, including any special circumstances that may lead us to determine that regulation of Utility Units under CAA section 112 is not appropriate.[20]

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protection of the public health while avoiding the imposition of excessive and unnecessary costs on residential, industrial and commercial consumers of electricity."). Finally, section 112(n)(1)(A) requires EPA to consider alternative control strategies, and the focus on such strategies may reasonably be read as further evidence of the relevance of costs. *See, e.g.*, 65 FR 79830 (discussing costs in relation to certain technologies).

[20] Significantly, in December 2000, we acknowledged that factors other than the hazards to public health resulting from utility HAP emissions should be examined in determining whether regulation of Utility Units is appropriate under section 112. Indeed, after concluding that the Hg emissions from coal-fired Utility Units caused hazards to public health, we proceeded with the appropriate inquiry and examined whether there were any control technologies that could effectively reduce Hg. We also commented on the costs of achieving such reductions. *See, e.g.*, 65 FR 79828, 79830.