

ORAL ARGUMENT NOT YET SCHEDULED
No. 24-1120 (and consolidated cases)

IN THE
United States Court of Appeals
for the District of Columbia Circuit

STATE OF WEST VIRGINIA, *et al.*,

Petitioners,

– v. –

U.S. ENVIRONMENTAL PROTECTION Agency, *et al.*,

Respondents,

On Petitions for Review of Final Agency Action of the
United States Environmental Protection Agency
89 Fed. Reg. 39,798 (May 9, 2024)

**FINAL BRIEF OF THE INSTITUTE FOR POLICY INTEGRITY
AT NEW YORK UNIVERSITY SCHOOL OF LAW AS *AMICUS
CURIAE* IN SUPPORT OF RESPONDENTS**

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CIRCUIT RULE 28(A)(1) STATEMENT

As required by Circuit Rule 28(a)(1), counsel for the Institute for Policy Integrity at New York University School of Law certify as follows:

- (1) All parties, amici, and intervenors appearing in this case are listed in Petitioners' and EPA's briefs.
- (2) References to the final agency action under review appear in Petitioners' opening brief, and there are no related cases within the meaning of Circuit Rule 28(a)(1).

RULE 26.1 DISCLOSURE STATEMENT

The Institute for Policy Integrity (Policy Integrity) is a nonpartisan, not-for-profit organization at New York University School of Law.* No publicly held entity owns an interest in Policy Integrity. Policy Integrity does not have any members who have issued shares or debt securities to the public.

* This brief does not purport to represent the views, if any, of New York University School of Law.

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GLOSSARY OF ACRONYMS & ABBREVIATIONS

Pursuant to Circuit Rule 28(a)(3), the following is a glossary of acronyms and abbreviations used in this brief:

EPA

Environmental Protection Agency

INTEREST OF *AMICUS CURIAE* & AUTHORITY TO FILE

The Institute for Policy Integrity at New York University School of Law (Policy Integrity) is a nonpartisan, not-for-profit think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy, focusing primarily on environmental issues.¹

Policy Integrity and its staff have published numerous academic articles and reports on the Clean Air Act, including on Section 111 and specifically its application to greenhouse gas emissions from power plants. *See, e.g.*, Dena Adler & Andrew Stawasz, Inst. for Pol’y Integrity, *Defining “Adequately Demonstrated”* (2024), <https://perma.cc/2B97-NPK2>; Richard L. Revesz et al., *Familiar Territory: A Survey of Legal Precedents for the Clean Power Plan*, 46 *Env’t L. Rep.* 10,190 (2016). Policy Integrity also submitted comments on the Proposed Rule. Inst. for Pol’y Integrity, Comment Letter on Proposed New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and

¹ Per Federal Rule of Appellate Procedure 29(a)(4)(E), no party’s counsel authored this brief wholly or partly, and no person contributed money intended to fund its preparation or submission.

Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule (Aug. 8, 2023), <https://perma.cc/W79N-RHBR>. And Policy Integrity has participated in litigation before this Court on prior Environmental Protection Agency (EPA) rules to regulate greenhouse gas emissions from power plants. Brief of Policy Integrity as *Amicus Curiae* in Support of Respondents, *Am. Lung Ass'n v. EPA*, 985 F.3d 914 (D.C. Cir. 2021), *rev'd and remanded sub nom.*, *West Virginia v. EPA*, 597 U.S. 697 (2022); Brief of Policy Integrity as *Amicus Curiae* in Support of Respondents in *West Virginia v. EPA*, No. 15-1363 (D.C. Cir. 2015) (dismissed Sept. 17, 2019).

Policy Integrity draws on its expertise in environmental and administrative law, especially regarding the Clean Air Act, to provide a unique perspective on this challenge to EPA's final rule controlling dangerous pollution from fossil fuel-fired power plants. 89 Fed. Reg. 39,798 (May 9, 2024) (the Rule). Policy Integrity submits this *amicus curiae* brief to address the relationship between regulation of new and existing sources under Section 111 of the Clean Air Act and the

applicability of this Court’s past cases reviewing EPA’s discretion on technical findings under Section 111.

A single joint *amicus curiae* brief is not practicable in this case due to the numerous and complicated legal issues involved.

SUMMARY OF ARGUMENT

The specific facts of this case may be new, but the issues are familiar to this Court, which has reviewed multiple challenges to EPA’s regulations under Section 111 of the Clean Air Act since the 1970s. Each time, this Court has consistently recognized Section 111 to afford EPA discretion when determining whether a “best system of emission reduction” is “adequately demonstrated” and whether a standard is “achievable.” In reviewing EPA’s technical judgments in previous cases, the Court has applied “a test of reasonableness” and evaluated “whether there has been a clear error of judgment.” *See, e.g., Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 433–34 (D.C. Cir. 1973). Applying that standard here reveals that EPA’s determinations are well within the boundaries of discretion that Congress afforded the agency in Section 111.

I. The Court’s precedents involving EPA’s technical findings under Section 111 all addressed EPA regulations for new sources under Section 111(b). But Section 111(b) and Section 111(d), which applies to existing sources, both cross-reference the same definition of “standard of performance” in Section 111(a). Accordingly, for purposes of this case, the Court’s Section 111 precedents apply to regulations for existing sources.

Moreover, Congress knows how to set different criteria for regulating new and existing sources. For Section 111’s definition of “standard of performance,” however, Congress chose not to do so. And Congress had good reason to apply the same definition to new and existing sources, as it ensured comprehensive, coordinated pollution control.

II. Interpreting Section 111, this Court has recognized for decades that Congress gave EPA discretionary authority to make technical judgments concerning adequate demonstration and achievability of Section 111 performance standards. Rather than substitute its judgment for EPA’s, this Court has set the outer “boundaries” of EPA’s discretionary authority to identify adequately demonstrated systems and achievable standards and then “ensur[ed] the agency has engaged in

reasoned decisionmaking within those boundaries.” *Loper Bright Enters. v. Raimondo*, 144 S. Ct. 2244, 2263 (2024) (citations and quotations marks omitted).

EPA engaged in such reasoned decisionmaking when adopting the Rule. Contrary to Petitioners’ argument, adequate demonstration does not require continuous, facility-wide attainment of the emissions target for a full year. *See, e.g.*, Pet’rs Br. 49, 75. Rather, this Court has found that EPA engaged in reasoned decisionmaking in its Section 111 regulations when relying on evidence, such as:

- tests from a single U.S. source that had attained the emissions target on only three occasions (*Essex*, 486 F.2d at 437);
- tests from a facility that had only “almost” reached the emissions target on an intermittent basis, when supplemented by documentation of how past challenges could be overcome (*Sierra Club v. Costle*, 657 F.2d 298, 363–64 (D.C. Cir. 1981)) or in conjunction with data from prototypes and manufacturer guarantees for projects under construction (*Essex*, 486 F.2d at 440);

- extrapolations from pilot and small-scale projects (*Sierra Club*, 657 F.2d at 363, 380–84); or
- extrapolations from data from different industries (*Lignite Energy Council v. U.S. E.P.A.*, 198 F.3d 930, 933–934 (D.C. Cir. 1999)).

In the Rule here, EPA pointed to far more evidence than it had in prior upheld rules to support its conclusion that 90% carbon capture and sequestration is an adequately demonstrated system and achievable. *See* EPA Br. 31–38 (summarizing EPA’s extensive evidence, including data from coal and gas plants that have operated 90% carbon capture systems, planned facilities being constructed to operate at a 90% or higher carbon capture rate, vendor statements, and carbon capture data from other industries).

Because EPA engaged in reasoned decisionmaking, the Court should deny the petitions.

ARGUMENT

I. This Court’s Section 111 Case Law Applies To Both New And Existing Sources.

Petitioners’ supporters attempt to downplay this Court’s extensive case law on Section 111 regulations because those cases all involved new

sources regulated under Section 111(b). U.S. Chamber of Commerce Amicus Br. 10–11. This attempt fails because the case law is relevant to the portions of the Rule that apply to *existing* sources under Section 111(d), too. The reason is straightforward: Both Section 111(b) and Section 111(d) use the same definition of “standard of performance,” which comes from Section 111(a). And this Court’s relevant Section 111 case law interpreted that common definition of “standard of performance.” For purposes of this case, the Court’s precedents thus apply to both Section 111(b) and Section 111(d). In addition, the legislative history and statutory structure further confirm that the “standard of performance” definition applies to both subsections because Section 111(d) fills a critical gap in pollution control.

A. Section 111(a) provides the definition of “standard of performance” for Section 111(b) and Section 111(d).

Section 111 begins with a set of definitions specifically for the “purposes of this section” including a definition of “standard of performance.” 42 U.S.C. § 7411(a). And while Section 111 includes separate provisions for new sources (subsection b) and existing sources (subsection d), both provisions look to Section 111(a)’s definition for the meaning of “standard of performance.” 42 U.S.C. §§ 7411(a)(1), (b)(1),

(d);² *see also West Virginia v. EPA*, 597 U.S. 697, 706 (2022). Under Section 111(a),

[t]he term “standard of performance” means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) *the Administrator determines* has been *adequately demonstrated*.

42 U.S.C. § 7411(a)(1) (emphasis added). Accordingly, a standard of performance “may be different for new and existing plants, but in each case it must reflect the ‘best system of emission reduction’ that [EPA] has determined to be ‘adequately demonstrated’ for the particular category.” *West Virginia*, 597 U.S. at 706 (citing §§ 7411(a)(1), (b)(1), (d)). In other words, while EPA should apply the same considerations to design emission limits for new and existing sources, it may identify a different

² Under Section 111(d), EPA first establishes emission guidelines, and each state then adopts a “standard of performance,” but “EPA itself still retains the primary regulatory role in Section 111(d)” because “[t]he Agency, not the States, decides the amount of pollution reduction that must ultimately be achieved.” *West Virginia*, 597 U.S. at 710. EPA “does so by . . . determining, as when setting the new source rules, the best system of emission reduction . . . that has been adequately demonstrated for [existing covered] facilities.” *Id.* (citations omitted).

stringency or threshold of achievability for existing sources (e.g., after considering the cost and feasibility of retrofitting specific to existing sources).³

Section 111(a) thus does not distinguish between what determinations EPA must make for new versus existing sources. And Congress knows how to set different definitions to guide standards for new and existing sources under the Clean Air Act. For example, Congress drew such a distinction in Sections 112 and 129, which require new sources to match or exceed the emission reductions “achieved in practice by the best controlled similar source,” while existing sources’ emissions must match or exceed emission reductions of “the best performing 12[%] of the existing sources.” 42 U.S.C. § 7412(d)(3); *accord id.* at § 7429(a)(2) (similar). Congress drew no such distinction in the definition of “standard[s] of performance” that applies to both new and existing sources in Section 111.

³ When states adopt a standard of performance under Section 111(d), they also have additional opportunities to grant variances that allow for “remaining useful life and other factors.” 42 U.S.C. § 7411(d).

B. Congress had good reasons to use the same “standard of performance” definition for new and existing sources.

Section 111’s history further clarifies that Congress intended the same definition to apply to both new and existing stationary sources. And Congress had good reasons for including both types of sources in Section 111. Congress enacted the 1970 Clean Air Act Amendments, including Section 111, to “provide a much more intensive and comprehensive” approach to pollution control than previous legislation. S. Rep. No. 91-1196, at 4 (1970). Since its enactment, Section 111 has contributed to this goal by directing the regulation of certain pollution from both new and existing stationary sources. 40 Fed. Reg. 53,340, 53,342–43 (Nov. 17, 1975) (summarizing history); *see also* Clean Air Act Amendments of 1970, Pub. L. No. 91-604, § 111, 84 Stat. 1676, 1683–84 (showing original section 111 covered new and existing sources).

In the 1970 Clean Air Act Amendments, existing sources were originally required to meet “emission standards.” *See* Pub. L. No. 91-604, § 111(d)(1)(A). But soon after, in 1977, Congress even more fully harmonized the language concerning regulation of new and existing sources, by removing “emission standards” from Section 111(d) and

replacing it with “standard of performance.” *See* Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 109(b)(1), 91 Stat. 685, 699 (amending 42 U.S.C. §7411(d)(1)); *see also* Robert R. Nordhaus & Avi Zevin, *Historical Perspectives on § 111(d) of the Clean Air Act*, 44 *Env’t L. Rep.* 11095, 11097 (2014). The 1977 amendments thus aligned Sections 111(b) and (d) to use the same definition of performance standard under Section 111(a).

Harmonizing the approach to regulating new and existing sources under Section 111 was no mistake. *See* 42 U.S.C. § 7411(d) (specifying that a category of existing sources be regulated alongside its new source counterpart for the types of pollutants covered by Section 111(d)). Regulating new sources without coordinated controls for existing sources can create perverse incentives. Regulated entities may choose to keep their older, higher-polluting plants in operation well beyond their anticipated life, because it is less expensive than building new units that meet more-stringent standards. *See, e.g.*, Richard L. Revesz & Jack Lienke, *Struggling for Air: Power Plants and the “War on Coal”* 30–35 (2016) (describing the “grandfathering” effect and the Clean Air Act). Pairing regulation of existing sources under Section 111(d) with

corresponding new source standards thus better achieves Section 111's overall pollution control purpose. *See, e.g.*, S. Rep. No. 91-1196, at 16. Using the same definition of “standard of performance” for new and existing sources further supports this goal by ensuring both programs are comparably ambitious, which better prevents the creation of perverse incentives.

True, Section 111(d) may be a “gap filler.” *West Virginia*, 597 U.S. at 724. But the gap it fills is critical: Congress designed the provision to address “significant danger[s] to public health or welfare” that other statutory programs did not cover. *See* S. Rep. No. 91-1196, at 20 (1970).⁴ Section 111(d) covers pollutants from existing stationary source emissions that are *not* covered under other parts of the Clean Air Act. *See* 42 U.S.C. § 7411(d) (specifying Section 111(d) covers pollution not already regulated as criteria pollutants under the national ambient air quality standards program or hazardous pollutants under Section 112). Congress chose to regulate these existing sources through Section 111, rather than a separate provision, and to tie them to its specific statutory

⁴ Before reconciliation with the House Bill, the Senate Bill discussed the standards for existing sources (that would ultimately become part of Section 111) in draft Section 114.

requirements, including the definition of a performance standard. 42 U.S.C. § 7411; *see also* Nordhaus & Zevin, *supra*, at 11097 (explaining the inclusion of existing sources within Section 111 as the result of a compromise between the Senate and the House in the 1970 Clean Air Act Amendments).

And despite being a “gap filler,” EPA has repeatedly used Section 111(d) to control harmful air pollutants since its enactment—during the Carter, Clinton, George W. Bush, Obama, and Biden Administrations. *See, e.g.*, 89 Fed. Reg. 16,820 (Mar. 8, 2024); 81 Fed. Reg. 59,276 (Aug. 29, 2016); 70 Fed. Reg. 28,606 (May 18, 2005) (vacated on unrelated grounds); 61 Fed. Reg. 9905 (Mar. 12, 1996); 45 Fed. Reg. 26,294 (Apr. 17, 1980); 44 Fed. Reg. 29,828 (May 22, 1979); 42 Fed. Reg. 55,796 (Oct. 18, 1977); 42 Fed. Reg. 12,022 (Mar. 1, 1977).

* * *

In short, Section 111(a) supplies the common definition of “standard of performance” for both Section 111(b) and Section 111(d). And Congress had good reasons for drafting Section 111 in just this way. Accordingly, this Court’s case law addressing the meaning of “standard of performance” applies to both Section 111(b) and Section 111(d)..

II. EPA's Determination That 90% Carbon Capture And Sequestration Is Adequately Demonstrated Comfortably Satisfies This Court's Established Case Law For Section 111.

The Court must decide whether EPA engaged in reasoned decisionmaking when determining that 90% carbon capture is adequately demonstrated and achievable for existing coal-fired power plants that plan to continue operating after 2039 and for new gas-fired power plants in EPA's baseload subcategory.

Since the 1970s, this Court has repeatedly reviewed challenges to EPA's identification of adequately demonstrated systems and achievable standards under Section 111. *See, e.g., Essex*, 486 F.2d at 433. Each time the Court has recognized that these determinations are technical judgments within EPA's discretion and, accordingly, reviewed only whether these determinations conform with reasoned decisionmaking. The recent decision in *Loper Bright*, 144 S. Ct. 2244, confirms the soundness of this approach.

This section first outlines *how* the Court has reviewed challenges to EPA's technical determinations under Section 111. *See infra* Part II.A. The section then summarizes the relevant portions of this Court's Section 111 case law, demonstrating that the Rule more than satisfies the

reasoned decisionmaking that this Court has upheld in the past. *See infra* Part II.B.

A. This Court reviews EPA’s technical determinations of adequate demonstration and achievability for conformity with reasoned decisionmaking.

Dating back to its review of the earliest Section 111 regulations in the 1970s, this Court has interpreted Section 111(a) to delegate significant discretion to EPA to make technical judgments about “adequate demonstration” and “achievability.” *See Portland Cement Ass’n v. Ruckelshaus*, 486 F.2d 375 (D.C. Cir. 1973); *Essex*, 486 F.2d 427.⁵

In these early cases, the Court sought to “determine whether the agency ha[d] exercised a reasoned discretion,” “remain[ing] diffident” to the agency in “problems of this technical complexity.” *Portland Cement*, 486 F.2d at 402 (internal quotations omitted). Recognizing a need to “bow to the acknowledged expertise of the Administrator in matters technical,” the Court applied “a test of reasonableness, wherein [it was] not empowered to substitute [its] judgment for that of the agency but must consider whether the decision was based on a consideration of the

⁵ Both of these decisions predated *Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984).

relevant factors and whether there has been a clear error of judgment.” *Essex*, 486 F.2d at 433–434 (internal quotation omitted).

That approach to reviewing Section 111 regulations has remained consistent over decades. *See Nat’l Asphalt Pavement Ass’n v. Train*, 539 F.2d 775, 786 (D.C. Cir. 1976) (“The standard of review . . . in setting standards of performance is an appropriately deferential one”) (internal citation omitted); *Nat’l Lime Ass’n v. Env’t Prot. Agency*, 627 F.2d 416, 429 (D.C. Cir. 1980) (“We have not deviated from the approach applied to the first [new source performance standards] to reach this court.”); *Sierra Club*, 657 F.2d at 323; *Lignite*, 198 F.3d at 933–934.

This Court’s longstanding and consistent approach to EPA’s discretion is unsurprising given that the best reading of Section 111’s text emphasizes EPA’s flexibility to make technical determinations. *See Loper Bright*, 144 S. Ct. at 2263 (explaining that a best reading can be that the agency “is authorized to exercise a degree of discretion” and noting “Congress has often enacted such statutes”). Notably, Congress directed that a “best system” is one that “*the Administrator determines has been adequately demonstrated.*” 42 U.S.C. § 7411(a)(1) (emphasis added). In *Loper Bright*, the Supreme Court pointed to similar language as

epitomizing a grant of discretionary authority. *Loper Bright*, 144 S. Ct. at 2263 n.6 (providing similar examples from the Clean Air Act and Clean Water Act of Congress granting the EPA Administrator authority to regulate upon making a judgment or finding). That Section 111 directs EPA to identify “the *degree* of emission limitation *achievable*,” 42 U.S.C. § 7411(a) (emphasis added), only further confirms EPA’s discretionary “flexibility.” *Loper Bright*, 144 S. Ct. at 2263 (citation omitted).

In such settings involving an agency’s discretion, a court’s job is to set the outer “boundaries” of the agency’s authority and then “ensur[e] the agency has engaged in reasoned decisionmaking within those boundaries.” *Id.* at 2263 (citations and quotations marks omitted). More specifically, in reviewing whether the agency “exercise[d] [its] discretion consistent with the [Administrative Procedure Act],” the court determines if the agency’s judgment was procedurally flawed or arbitrary and capricious. *Id.* at 2268. This Court has approached prior Section 111 challenges in just this way, consistently recognizing that Section 111 grants discretion to EPA to make technical judgments and then reviewing whether those judgments are based on reasoned

decisionmaking within the boundaries of EPA's discretion. *See infra* Part II.B.

As EPA notes, Petitioners conceded that carbon capture is an adequately demonstrated technology. *See* EPA Br. 30–31; *see also* Pet'rs Br. 40. Petitioners really just criticize the stringency of the specific rate of capture upon which the Rule bases the standard (90% of the carbon dioxide in a plant's exhaust stream) and the feasibility of developing adequate supporting infrastructure by the compliance deadline. *See* Pet'rs Br. 40, 75. All of these questions are exactly the type of technical issues that Congress entrusted to the discretion of an expert agency, subject only to review for reasoned decisionmaking. *See Loper Bright*, 144 S. Ct. at 2263.

B. EPA's 90% carbon capture determination easily surpasses the bar for reasoned decisionmaking given the evidence this Court has previously upheld as sufficient.

Contrary to Petitioners' argument, *see, e.g.*, Pet'rs Br. 49, 75, EPA is not required under Section 111(d) to show that emissions targets have been attained continuously, annually, and facility-wide prior to rule implementation. Rather, this Court has recognized that EPA has engaged in reasoned decisionmaking when making determinations of

adequate demonstration and achievability based on data far short of habitual, continuous, annual, and facility-wide achievement, including evidence such as:

- tests from a single U.S. source that had attained the emissions target on only three occasions (*Essex*);
- tests from a facility that had only “almost” reached the emissions target, when supplemented by documentation of how past challenges could be overcome (*Sierra Club*), or in conjunction with data from prototypes and technology manufacturer guarantees for projects under construction (*Essex*);
- extrapolations from pilot and small-scale projects (*Sierra Club*); or
- extrapolations from data from different industries, namely industrial boilers versus electric utilities (*Lignite*).

All the Court has required is that EPA use such information in a reasoned manner and give rationales for its extrapolations and determinations.

The Rule comfortably surpasses this bar for record-based evidence of adequate demonstration and achievability. EPA has provided evidence of multiple coal and gas plants that have demonstrated 90% carbon capture, documenting how future projects will avoid past challenges; and it has pointed to even more evidence, including projects planned to meet or exceed the standard, data from other industries on use of emission controls, and technology manufacturer guarantees concerning 90% capture. *See* EPA Br. 31–38 (summarizing EPA’s evidence). This rule sits comfortably in the heartland of EPA’s recognized zone of reasoned decisionmaking. *See id.* at 26 (making clear the Rule does not push the boundaries of EPA’s discretionary authority).

The following sections summarize key case law concerning EPA’s Section 111 regulations, illustrating that this Court has never required prior demonstrations of voluntary, continuous, year-long, full-scale facility achievement. As explained, while these cases involved standards for new sources, the Court’s interpretation of “performance standards” applies to regulations for both new and existing sources. *See supra* Part I.

1. This Court has upheld Section 111 regulation based on noncontinuous performance.

In 1973, the Court issued its first two decisions addressing EPA's determinations of adequate demonstration and achievability under Section 111. *See Portland Cement*, 486 F.2d 375 (reviewing standards for cement plants); *Essex*, 486 F.2d 427 (reviewing standards for sulfuric acid plants and coal-fired steam generators, including power plants). From the beginning, the Court established that no plant had to meet the standards before rule implementation, directly contradicting Petitioners' unjustified requirement. *See Portland Cement*, 486 F.2d at 391 ("reject[ing] the suggestion . . . that the Act's requirement that emission limitations be 'adequately demonstrated' necessarily implies that any cement plant now in existence be able to meet the proposed standards"); *Essex*, 486 F.2d at 433 (reinforcing that "achievability" did "not require that a . . . plant be currently in operation which can at all times and under all circumstances meet the standards").

In both cases, EPA relied on evidence from fewer facilities than it has now in the Rule. In *Essex*, the Court reviewed application of a "dual" absorption system to sulfuric acid plants. *Essex* at 436–37. While more extensively deployed in Europe, only one American plant used dual

absorption at the time of EPA’s testing in preparation for the standards. *Id.* at 435. Tests at that facility showed that the proposed standard had been met only *on three occasions* when the plant was functioning at or near maximum capacity. *Id.* at 436–437. Although tests had shown *noncontinuous* performance of the emissions target at a *single* U.S. facility, the court held “that the Administrator has acted properly within the scope of his authority and not in abuse of his discretion.” *Id.* at 429; *see also id.* at 436-37 (emphasizing the importance of the tests at the American plant because the technical literature on the European plants didn’t make clear whether those tests had been run when a plant was functioning at or near maximum capacity). Petitioners’ contention that *Essex* indicates a performance standard must be consistently achieved is, therefore, wrong. *See* Pet’rs Br. at 39.

Similarly, in *Portland Cement*, EPA relied on tests at two facilities and the technical literature to support the achievability of its performance standard. *Portland Cement*, 486 F.2d at 392, 395. Although the Court remanded the regulation for EPA to address separate procedural defects, the Court made clear that “[i]t would have been entirely appropriate if the Administrator had justified the standards . . .

on extrapolations from [the data in the tests and literature], on a reasoned basis responsive to comments, and on testimony from experts and vendors made part of the record.” *Id.* at 401–02.⁶ The Court later affirmed the standards when they were challenged again after remand. *Portland Cement Ass’n v. Train*, 513 F.2d 506, 509 (D.C. Cir. 1975).

The evidence that passed muster in *Essex* and *Portland Cement* pales in comparison to EPA’s robust evidence of multiple successful past implementations at various facilities, planned facilities being constructed to operate at a 90% or higher carbon capture rate, plus testimony from experts and technology vendors that together form the exhaustive record for this Rule. *See, e.g.*, 89 Fed. Reg. at 39,848–39,852.

2. This Court has upheld Section 111 regulation based on near-attainment of an emissions target when supplemented with other information.

When reviewing EPA’s initial standards for coal-fired steam generators (i.e., power plants) in *Essex*, the Court further explained that

⁶ The Court also recognized that “[t]he Administrator may make a projection based on existing technology,” provided that the “projection is subject to the restraints of reasonableness.” *Portland Cement*, 486 F.2d at 391 (internal quotations omitted). Thus, while EPA makes clear that the present Rule did not rely on projections of future technology development, *see* EPA Br. 25–28 (refuting Pet’rs Br. 25–43), EPA in fact could have done so within the bounds of its discretion.

it was not “a clear error of judgment” for EPA to set a standard at a level “that a presently installed unit *approaches* rather than achieves,” since “the results [were] considered in conjunction with the prototype testing data and the predictions and guarantees of domestic equipment manufacturers for plants under construction.” *Essex*, 486 F.2d at 440 (emphasis added).

A few years later, when reviewing strengthened Section 111 standards for the same source category, the Court reconfirmed that EPA could set an “achievable” standard at a level *not yet achieved* in the industry for the specified system, provided that EPA demonstrated reasoned decisionmaking by supplementing its limited data with detailed documentation of expected changes in future scrubbers. *Sierra Club*, 657 F.2d at 363–64 (noting that documentation included test reports on EPA’s recommended improvements and corroboration from vendors of the control equipment regarding the achievability of the standard).

For these latter regulations, EPA set a performance standard of 90% removal of uncontrolled sulfur dioxide from power plants, which it determined could be achieved by a combination of scrubber technology and coal-washing. *Id.* at 356. For a key component of the standards, the

Court allowed EPA to rely on data from only two units that “*almost*” met the standard—one commercial plant (which nearly met the standard during “only 15[%] of a six month test period” as it was malfunctioning during the rest of the test period) and a pilot project—because EPA did so in conjunction with a reasonably supported explanation of anticipated design and operational improvements. *Id.* at 362–63. *Sierra Club’s* validation of a 90% emissions limit that had only been “approached” thus sets an easy-to-clear bar for the present Rule, which based its 90% carbon capture standard on reductions that have already been achieved in practice. *See, e.g.*, 89 Fed. Reg. at 39,848–50, 39,925–26.

Sierra Club also recognized that EPA could make reasonable findings about achievability based on extrapolations from smaller-scale projects. *See Sierra Club*, 657 F.2d at 380–384. When reviewing the 1977 particulate matter standards for the same power plants, the Court upheld EPA’s finding that the standards were achievable based on evidence that baghouse technology could be scaled from smaller plants to larger plants. *Id.* at 382 (“EPA has acknowledged since the standard was proposed that its performance data are based on small scale plants (which were the only size baghouse installation available at the time)”);

see also Essex at 440 (noting the relevance of tests from “prototype and full-scale” facilities). In the present Rule, EPA not only offers evidence from past projects that exceed the size of many regulated entities, but also supplements with documentation of how some smaller past projects further demonstrate the technology’s capabilities. *See, e.g.*, 89 Fed. Reg. at 39,850 (describing Plant Barry); *id.* at 39,927 (describing data from the Mongstad power station).

3. This Court has upheld Section 111 regulation based on data from other industries.

In its review of industrial boiler standards in *Lignite*, the Court recognized that reasoned decisionmaking could also include extrapolations based on use of technology in a different industry. *Lignite*, 198 F.3d 930 at 933–34. Before the regulation, selective catalytic reduction had been installed in only seven American coal-fired units, all of which were electric utility units—not the kind of industrial boiler units subject to the new regulation. *See* Revision of Standards of Performance for Nitrogen Oxide Emissions from New Fossil-Fuel Fired Steam Generating Units, 63 Fed. Reg. 49,442, 49,444 (Sept. 16, 1998).

The Court was not troubled that EPA did not have data for the application of selective catalytic reduction specifically to industrial

boilers, noting “this absence of data is not surprising for a new technology like [selective catalytic reduction], nor does it in and of itself defeat EPA’s standard.” *Lignite*, 198 F.3d at 933–34. The Court explained that “EPA may compensate for a shortage of data through the use of other qualitative methods, including the reasonable extrapolation of a technology’s performance in other industries,” as long as it is not based on “mere speculation or conjecture.” *Id.* at 934.

Petitioners erroneously try to minimize the extrapolation in *Lignite* on the basis that “parties in that case *agreed* that the technology at issue was adequately demonstrated.” Pet’rs Br. 36 (emphasis in the original). To the contrary, as the Court itself explained, the petitioners in that case “offer[ed] a broader challenge” and “claim[ed] that [selective catalytic reduction] is not ‘adequately demonstrated’ for any coal-fired industrial boilers.” *Lignite*, 198 F.3d at 933. *Lignite* thus supports the Rule’s extrapolations both from industrial source data to power plants, *see* 89 Fed. Reg. at 39,847, and from coal plant data to the gas plant standards, *see, e.g., id.* at 39,925–26, especially given that EPA also relied on data from both coal and gas plants, *see, e.g., id.* at 39,847–51, 39,926–27.

Additionally, the Court does not require uniformity *within* an industry. The Court’s review of respective standards for lime and asphalt manufacturing add more nuance to how EPA may account for conditions that could vary within the industry and affect emissions, such as variations in the feed aggregate or type of fuel used. The Court required that EPA must have considered these factors and provided a rationale for the representativeness of its data. *See Nat’l Asphalt Pavement Ass’n*, 539 F.2d at 787 (upholding regulations upon recognition that “the Administrator's statements indicate an awareness of and a willingness to adjust for such factors.”); *Nat’l Lime Ass’n*, 627 F.2d at 434 (remanding for a more adequate explanation of how the tests pertained to facilities with variable conditions or, if necessary, supplementary data); *see also id.* at 454 (clarifying that the Court did “not intend to bridle the Agency's discretion to make well-founded assumptions even where the assumption could be replaced by valid test results,” so long as the assumptions were stated and that in instances “where test data *could* have verified the assumption, a reason for not testing or relying on such data should be given.”).

The Rule more than passes the bar on this criterion as well. In the Rule, EPA considered and provided its rationale for different expected operating conditions, including for variable circumstances such as type of coal used for plants subject to the 90% carbon capture standard. *See, e.g.*, 89 Fed. Reg. at 39,854. EPA also considered variable operating conditions for coal-fired plants with nearer retirement dates subject to the co-firing standard and explained how obstacles could be overcome. *See id.* at 39,892–94.

* * *

In sum, this Court has long reviewed EPA’s exercise of its discretionary authority under Section 111 for reasoned decisionmaking. The Court should review EPA’s new regulations just as it has for decades and uphold the Rule because EPA engaged in precisely the type of reasoned decisionmaking this Court has upheld in the past.

CONCLUSION

For the foregoing reasons, this Court should deny the petitions.

October 18, 2024

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

This *amicus curiae* brief complies with the type-volume limitations of Fed. R. App. P. 29(a)(5) because this brief contains 5485 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(f), as counted by counsel's word processing system.

This *amicus curiae* brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because this brief has been prepared in a proportionally spaced typeface using Microsoft Word in Century Schoolbook 14-point font.

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CERTIFICATE OF SERVICE

I hereby certify that on this 18th day of October 2024, a true and correct copy of the foregoing Final Brief of the Institute for Policy Integrity at New York University School of Law as Amicus Curiae in Support of Respondents was filed with the Clerk of the United States Court of Appeals for the District of Columbia Circuit via the Court's CM/ECF system. Counsel for all parties are registered CM/ECF users and will be served by the appellate CM/ECF system.

DATED: October 18, 2024

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