

No. 26-298

IN THE
Supreme Court of the United States

CHAMBER OF COMMERCE, *et al.*,

Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, *et al.*,

Respondents.

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

**BRIEF OF THE STEEL MANUFACTURERS
ASSOCIATION AS *AMICUS CURIAE*
IN SUPPORT OF PETITIONERS**

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**INTRODUCTION AND
INTEREST OF *AMICUS CURIAE***¹

The Steel Manufacturers Association (“SMA”) is the primary trade association for scrap-based electric arc furnace (“EAF”) carbon and stainless steelmakers in the United States. SMA’s members produce steel from a feedstock of nearly 100 percent recycled scrap. Steel manufacturers utilizing electric arc furnaces account for over 70 percent of domestic steel production capacity and make several products, including carbon, alloy, and stainless steels, that are essential to the defense industry, critical infrastructure projects, and a broad array of manufacturing industries. The EAF steel manufacturers that support these critical components of the domestic economy generate \$149.4 billion in annual economic impact and employ 87,000 men and women at an average annual wage of \$142,730.

EAF steel manufacturing is environmentally beneficial as well. EAF steel manufacturers are the largest recyclers by volume in the United States, annually recycling over 60 million tons of steel scrap that would otherwise be disposed of in landfills. But the domestic EAF steelmaking industry emits far less pollution than its overseas competitors. Catrina Rorke, *et al.*, *America’s Carbon Advantage 2025*, Climate Leadership Council 9 (Mar. 2025), available at <https://clcouncil.org/wp-content/>

1. All parties received timely notice of SMA’s intent to file this brief under Rule 37.2. No counsel for any party authored this brief in whole or in part. Pursuant to Supreme Court Rule 37.6, no person or entity other than *amicus curiae* and its counsel made a monetary contribution intended to fund the preparation or submission of this brief.

uploads/2025/06/2025-Carbon-Advantage_report-1.pdf; CRU, Emissions Analysis Executive Summary: Prepared for the Steel Manufacturers Association (June 14, 2022), available at <https://steelnet.org/steelmaking-emissions-report-2022/>.

Notwithstanding the environmental benefits of recycling steel scrap into critical steel products, the use of pollution controls that exceed those employed by many of the largest overseas competitors, and the industry's role in helping the United States achieve some of the lowest ambient particulate matter concentrations in the world, SMA members' ability to grow and reinvest in their domestic operations is constrained by the U.S. Environmental Protection Agency's ("EPA's") untimely and arbitrary reset of National Ambient Air Quality Standards ("NAAQS") for particulate matter with a diameter of 2.5 micrometers or smaller ("PM_{2.5}") from 12 $\mu\text{g}/\text{m}^3$ to 9 $\mu\text{g}/\text{m}^3$. State of Global Air, PM2.5 Exposure Levels, available at <https://www.stateofglobalair.org/pollution-sources/pm25> (last visited October 2, 2026); Ali Hasanbeigi, et al., *How Clean is the U.S. Steel Industry?*, Global Efficiency Intelligence 3 (Nov. 2019), available at https://www.belfercenter.org/sites/default/files/pantheon_files/files/publication/how-clean-is-the-us-steel-industry-nv.pdf; Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, 89 Fed. Reg. 16,202 (Mar. 6, 2024) ("2024 Final Rule").

The upshot of the D.C. Circuit's decision upholding EPA's abrupt revision of the PM_{2.5} standard is not just that it affirmed an agency decision that irrationally saddles the country with some of the lowest annual PM_{2.5} concentrations in the world with the most stringent PM_{2.5}

standard in history. State of Global Air, PM_{2.5} Exposure Levels, available at <https://www.stateofglobalair.org/pollution-sources/pm25> (last visited October 2, 2026). It also establishes a precedent that authorizes, and in fact incentivizes, EPA to promulgate future NAAQS revisions outside of the CAA's predictable five-year cycle so the agency can avoid its statutory obligation to conduct a "thorough review," and do so without any consideration of the costs or other impacts of this unpredictable and perfunctory approach to NAAQS reviews.

The petitions for a writ of certiorari filed by the Chamber of Commerce of the United States, *et al.* in case number 26-298, and Kentucky, *et al.* in case number 26-277, correctly identify fundamental defects in EPA's PM_{2.5} NAAQS revision and the D.C. Circuit's decision upholding that action. In support of those petitions, SMA herein provides the perspective of a critical and environmentally beneficial industry whose members are already adversely impacted by EPA's NAAQS revision and the D.C. Circuit decision upholding that action. SMA therefore respectfully urges this Court to grant certiorari.

SUMMARY OF ARGUMENT

This case presents questions of exceptional importance for American industry. Section 109(d)(1) of the Clean Air Act ("CAA") requires EPA to complete a thorough review whenever it revises a NAAQS, even when the agency does so "off-cycle." Further, this Court has held that agencies, in deciding whether to regulate, must consider costs unless the relevant statute specifies otherwise. The D.C. Circuit, however, held that EPA was permitted to revise the PM_{2.5} NAAQS without undertaking a thorough review,

and without properly considering costs or attainability before undertaking a discretionary off-cycle revision. Both holdings warrant this Court's review.

SMA submits this brief to urge the Court to grant certiorari because the decision below misconstrues the CAA's thorough-review safeguard and has profound consequences that extend across much of the U.S. economy, including but not limited to the domestic EAF steel manufacturing industry, which only this Court can address.

REASONS FOR GRANTING THE PETITION

I. THE COURT OF APPEALS' REASONING IS UNSUPPORTED BY THE TEXT OF THE CLEAN AIR ACT AND UNTENABLE IN PRACTICE.

Section 109 of the CAA requires EPA to conduct a "thorough review," meaning a "comprehensive review of all peer-reviewed literature on the pollutant published since the last review" of the NAAQS for that pollutant. Chamber of Commerce et al. Pet. at 5–6; *see also Murray Energy Corp. v. EPA*, 936 F.3d 597, 620 (D.C. Cir. 2019); *Kentucky v. EPA*, 179 F.4th 963, 970 (D.C. Cir. 2026). The D.C. Circuit agrees that this "thorough review" is required both when EPA promulgates NAAQS and when it periodically reviews NAAQS on a five-year cycle under CAA section 109(d)(1). *Kentucky*, 179 F.4th at 970. But in its opinion below, the D.C. Circuit inexplicably concluded that EPA may avoid the thorough review requirement if the agency's NAAQS revision occurs outside of the statutory five-year interval, or "off-cycle." That conclusion

runs counter to the text and structure of the CAA as well as public policy.

A. EPA is Required to Undertake Thorough Review When It Sets National Ambient Air Quality Standards, Regardless of Timing.

The CAA's framework for setting and revising NAAQS is described in detail in the petitions for certiorari and the opinion below and will only be recounted briefly here. *See* Chamber of Commerce et al. Pet. at 8–14. In short, sections 108 and 109 of the CAA, codified at 42 U.S.C. § 7408 and 42 U.S.C. § 7409, establish requirements for EPA's initial promulgation of a particular NAAQS and any subsequent revisions.

First, section 108 creates a process by which the EPA Administrator identifies air pollutants “for the purpose of establishing national primary and secondary ambient air quality standards,” 42 U.S.C. § 7408(a)(1), and thereafter “issue[s] air quality criteria” that “accurately reflect the latest scientific knowledge.” 42 U.S.C. § 7408(a)(2). Establishing and modifying those criteria, as the D.C. Circuit noted, involves a “comprehensive evaluation and synthesis of the policy-relevant science” through EPA’s “Integrated Science Assessment.” *Kentucky*, 179 F.4th at 970 (citations omitted).

Next, section 109 requires EPA to “simultaneously” propose primary and secondary NAAQS for any air pollutant for which air quality criteria are issued. 42 U.S.C. § 7409(a)(2). The primary NAAQS at issue here are “based on such criteria,” and “requisite to protect the public health.” 42 U.S.C. § 7409(b)(1). If EPA later

revises these NAAQS, it must do so “in the same manner as promulgated.” *Id.*

After EPA sets a NAAQS, at least every five years, EPA must

complete a thorough review of the criteria published under [42 U.S.C. § 7408] and the national ambient air quality standards promulgated under [42 U.S.C. § 7409] and shall make such revisions in such criteria and standards and promulgate such new standards as may be appropriate in accordance with [42 U.S.C. § 7408] and subsection (b) of [42 U.S.C. § 7409].

42 U.S.C. § 7409(d)(1). But the Administrator “may review and revise criteria or promulgate new standards earlier or more frequently than required under [§ 7409(d)(1)].” *Id.*

Examining this process, the D.C. Circuit concluded that the “thorough review” requirement in the first sentence of section 109(d)(1) did not extend to the second sentence of section 109(d)(1), which allows EPA to review and revise NAAQS more frequently than the established five-year interval, nor to EPA’s obligation to revise NAAQS “in the same manner as promulgated” under section 109(b)(1). *Kentucky*, 179 F.4th at 976-77. This conclusion is nonsensical for at least two reasons: first, the simplest and most consistent interpretation of section 109(d)(1) is that EPA must conduct a “thorough review” to promulgate and revise standards at the established “five-year interval[,]” and is not authorized to ignore the “thorough review” requirement if it chooses to revise a

standard on a shorter timeframe; and second, the D.C. Circuit’s reading would void EPA’s obligation under section 109(b) to revise NAAQS in the “same manner as promulgated.”

The plain text of section 109 requires that EPA complete a thorough review before revising NAAQS, even if that revision occurs off-cycle. It is uncontested that the CAA requires EPA to complete a thorough review of its NAAQS at five-year intervals. 42 U.S.C. § 7409(d)(1). It is equally uncontested that the CAA authorizes EPA to revise those standards “earlier or more frequently” than every five years. 42 U.S.C. § 7409(d)(1). But the D.C. Circuit’s decision diverges from the plain language of the statute by concluding that in authorizing EPA to revise NAAQS more frequently than every five years, section 109(d)(1) also authorized EPA to do so without “thorough review.”

The second sentence of section 109(d)(1) is short (by design) because it refers back to, and qualifies, only one aspect of the first sentence—the timing. Pursuant to the second sentence of section 109(d)(1), EPA may revise NAAQS “earlier or more frequently” than the five-year interval provided for in the first sentence. *Id.* The second sentence does not alter or even reference any of section 109’s other substantive or procedural requirements for setting and revising NAAQS, because those requirements remain unchanged. Nevertheless, the D.C. Circuit read the absence of any *change* in process as an implicit and seemingly boundless authorization for EPA to follow any process it sees fit.

In so concluding, the court of appeals made much of the fact that the second sentence of section 109(d)(1) does not repeat the word “thorough.” *Kentucky*, 179 F.4th at 976 (“the absence of the word ‘thorough’ in the second sentence of § 7409(d)(1) is significant”). But neither did Congress craft the second sentence to allow superficial reviews for off-cycle revisions. Given the breadth and extent of economic impacts that flow from a NAAQS revision, Congress would have explicitly stated any intent to allow EPA to revise NAAQS off-cycle without the requisite thorough review. *West Virginia v. EPA*, 597 U.S. 697, 721 (2022) (recognizing that the “economic and political significance” of an agency’s asserted authority provides “a reason to hesitate before concluding that Congress meant to confer such authority”) (internal quotation marks omitted). Tellingly, it did not.

The term “review” alone, with no qualifier or antecedent, is vague and unclear. It should therefore be understood in its context, following directly from the parameters established in the prior sentence. *See United States v. Williams*, 553 U.S. 285, 294 (2008) (while a term may appear broad in isolation, it is “given more precise content by the neighboring words with which it is associated”) (citations omitted). The off-cycle “review” permitted by the second sentence of section 109(d)(1) is therefore best interpreted to be the same “thorough review” required at least every five years. Nothing in the CAA authorizes a different, lesser level of review for a shorter timeframe.

Even without the context of the first sentence, the second sentence of section 109(d)(1) still does not permit EPA to engage in a cursory review to revise standards—in

fact, the bare text of the second sentence does not support an off-cycle NAAQS revision at all. In the first sentence of section 109(d)(1), the CAA clearly authorizes “revisions in [] criteria *and* standards” following the requisite thorough review, as well as the ability to “promulgate new standards as may be appropriate.” 42 U.S.C. § 7409(d)(1) (emphasis added). By contrast, the second sentence of section 109(d)(1) allows EPA to “review and revise criteria *or* promulgate new standards earlier or more frequently” than the five-year cycle. *Id.* (emphasis added). If the two sentences are to be read separately, in their own respective vacuums, the “review and revise” authority in the second sentence would apply only to criteria, not standards.

But the D.C. Circuit did not adopt such a cramped reading of EPA’s authority under the second sentence of section 109(d)(1). On the contrary, the court of appeals separately found that modifications to criteria *would* in fact require “comprehensive evaluation and synthesis of the policy-relevant science” despite no such language in the second sentence of section 109(d)(1). *Kentucky*, 179 F.4th at 970. The D.C. Circuit decision arbitrarily interprets the second sentence of section 109(d)(1) as referring back to some—but not all—of the first sentence of section 109(d)(1). In other words, according to the court of appeals’ reasoning, the second sentence of section 109(d)(1) is simultaneously wholly separate from, and intrinsically intertwined with, the first sentence of section 109(d)(1). It cannot be both.

Further, by finding the second sentence untethered to the requirements of the first, the court of appeals’ reasoning would also implicitly allow EPA to promulgate

entirely new standards without completing thorough review. *See* 42 U.S.C. § 7409(d)(1) (allowing EPA to promulgate new standards off-cycle). The first sentence of section 109(d)(1) requires new standards to be promulgated “in accordance with section 7408 of this title and subsection (b) of this section.” 42 U.S.C. § 7409(d)(1). But the second sentence does not repeat these parameters. *Id.* By the court of appeals’ logic, EPA’s authority to promulgate new standards off-cycle as granted in the second sentence of 109(d)(1) would be therefore wholly unburdened by the limiting parameters included in the first. *Kentucky*, 179 F.4th at 977. EPA suddenly has an end-run around the careful, painstaking process Congress laid out in section 108.

This absurd result is compounded by the D.C. Circuit’s interpretation of section 109(b)(1), which allows that “primary standards may be revised *in the same manner as promulgated*.” 42 U.S.C. § 7409(b) (emphasis added). It does not grant any substantive powers, but rather governs the procedure by which NAAQS can be revised—through publication for notice and comment. 42 U.S.C. § 7409(a).² The process links back to the multi-step process under section 108, including simultaneous publication of air quality criteria that “reflect the latest

2. In response to Petitioners’ position that “thorough review” would only require EPA to consider new studies rather than revisit studies from its prior review, the court of appeals pointed to the notice and comment process as “an opportunity for interested parties to argue that the EPA did not consider relevant studies.” *Kentucky*, 179 F.4th at 977 n.6. The court therefore seemingly agreed that the revision process required EPA to consider all relevant new science, but substituted a comment solicitation for the “thorough review” that Congress required from EPA.

scientific knowledge.” *Kentucky*, 179 F.4th at 970 (citing 42 U.S.C. § 7408). A newly promulgated NAAQS must be based upon those criteria and deemed “requisite to protect the public health.” 42 U.S.C. § 7409(b)(1); *see also* 42 U.S.C. § 7409(a)(2) (under “Promulgation,” requiring that “the Administrator shall publish, simultaneously with the issuance of such criteria...proposed...standards for any such pollutant.”). The statutory text expects any revision under section 109(b)(1) to be accomplished “in the same manner” as initial promulgation and therefore supported by the same scientific rigor.³ The statutory text simply does not support a revision without thorough review, and it certainly cannot be read to allow circumvention of the “thorough review” requirement simply by modest deviation from the five-year review cycle.

B. The 2024 Final Rule is Arbitrary and Capricious Because it Fails to Consider the Costs Associated with Its Off-Cycle Revision.

An agency rule is arbitrary and capricious when “the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut.*

3. The D.C. Circuit found that EPA is not required “to expend limited resources to review other scientific studies unlikely to affect the final standard” because they “could delay but not improve the result.” *Kentucky*, 179 F.4th at 977. But it did not explain how EPA could determine whether these studies would affect the final standard *unless* EPA conducts that review.

Auto. Ins. Co., 463 U.S. 29, 43 (1983). Here, EPA’s decision to conduct an off-cycle revision of the PM_{2.5} NAAQS was arbitrary and capricious because the agency “entirely failed to consider an important aspect of the problem.” EPA did not consider the resulting costs to the regulated community or to the states⁴ tasked with implementing the revised standard.

This Court has opined on whether costs are a relevant consideration in the “initial calculation” necessary to set NAAQS under sections 108 and 109(b) of the CAA. *Whitman v. Am. Trucking Ass’ns, Inc.*, 531 U.S. 457, 465 (2001). But the decision to undermine the regulatory certainty and stability needed by industries like EAF steel manufacturers by revising a standard that had been confirmed only a year prior merits different analysis. “Agencies have long treated cost as a centrally relevant factor when deciding *whether* to regulate.” *Michigan v. EPA*, 576 U.S. 743, 752–53 (2015) (emphasis added). And this Court has found that “[i]t is not rational, never mind appropriate, to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits.” *Michigan*, 576 U.S. at 744 (internal quotations omitted). Here, EPA completely and purposefully ignored important and practical considerations like achievability, costs, and other economic impacts when it decided to revise a standard that it had just finished reviewing.⁵ EPA’s total

4. States undergo a complex, time-consuming, and costly implementation process in response to EPA’s NAAQS regulation. *Kentucky et al. Pet.* at 6-8.

5. EPA prepared and subsequently ignored its own Regulatory Impact Analysis (RIA) during its revision of the NAAQS here. But even when it appeared willing to investigate

failure to consider any costs when deciding whether to undertake its discretionary revision is arbitrary under *Michigan*.

The D.C. Circuit did not directly confront this question, choosing instead to conflate the formulation of the standard itself with the decision to change it. *Kentucky*, 179 F.4th at 981. But the mere decision to revise a standard that EPA had just finished reviewing and that states and regulated industries reasonably assumed would remain in place for multiple years (as every prior standard has) subverts the certainty industry needs for capital investment and project planning. As Petitioners noted, industry plans years-long projects that may suddenly need redesigns or significant additional spending. Chamber of Commerce Pet. Br. at 10. The CAA’s predictable, five-year intervals for standard revision allow the regulated community to adequately prepare for potential changes to the governing landscape. SMA does not contest that it is within EPA’s authority to engage in off-cycle revisions (provided, as noted above, that such revisions are supported by thorough review). 42 U.S.C. § 7409(d)(1). But if EPA exercises its discretion to conduct

costs, EPA’s analysis identified certain costs as relevant and then declined to quantify them. Env. Protection Agency, Final Regulatory Impact Analysis for the Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, EPA-452/R-24-006, at 40, 251, 261, 265 (Jan. 2024). Given the already narrow scope of the agency’s cost inquiry in the RIA, its calculated costs of nearly \$600 million illustrate the magnitude of the decision not to consider costs at all. EPA, Final Regulatory Impact Analysis for the Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, EPA-452/R-24-006, at 40, 251 (Jan. 2024).

an off-cycle revision, it cannot ignore the costs and other impacts of doing so. On the contrary, EPA's determination to review and revise the PM_{2.5} NAAQS off-cycle must be the product of reasoned decision-making. *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 42. And cost is always a "centrally relevant factor" "when deciding whether to regulate" because "reasonable regulation ordinarily requires paying attention to the advantages and disadvantages of agency decisions." *Michigan*, 576 U.S. at 752–53.

II. THE OFF-CYCLE AND SUMMARILY ASSESSED PM_{2.5} NAAQS REVISION THAT EPA PROMULGATED AND THE D.C. CIRCUIT UPHELD IS ALREADY INHIBITING, AND WITHOUT THIS COURT'S INTERVENTION WILL MORE FULLY SUBVERT, PERMITTING, PROJECT PLANNING, AND CAPITAL INVESTMENT IN THE DOMESTIC EAF STEEL MANUFACTURING INDUSTRY.

When EPA revises a NAAQS, it sets in motion a series of actions that have increasingly significant and widespread economic impacts on states and regulated industries. And when EPA opts to promulgate such a revision well before the five-year interval that the CAA allows, the agency is making a purely discretionary decision to encumber states and regulated industries with these costs and economic consequences. What is more, by abruptly disturbing a very recently (and thoroughly) reviewed standard that regulated industries reasonably expected to be settled and in place for multiple years, EPA's purely discretionary action undermines the regulatory certainty and consistency that industries need to intelligently invest in and plan for beneficial growth.

SMA represents an industry that is already laboring under this paradigm. The costs and other economic impacts that EPA's untimely revision caused but did not consider are already weighing on the domestic EAF steel manufacturing industry and these impacts will surely intensify as EPA and states proceed through the implementation steps that necessarily follow a NAAQS revision.

EPA's abrupt and uninformed revision upended the relatively stable and predictable regulatory regime that SMA members and other industries have come to expect from the NAAQS process. In so doing, EPA undermined SMA members' important capital investment and planning projects that demand the type of stable NAAQS review process that heretofore could only result in a revision after EPA conducted a complete and thorough review.

The revised standard's impacts on SMA members, which we discuss below, were the direct result of the unstable and perfunctory NAAQS review process that the D.C. Circuit's decision authorized and in fact, facilitated. The court interpreted the CAA to allow EPA to completely ignore the CAA's statutorily required "thorough review." And even though EPA's off-cycle review was certain to create adverse economic impacts and upset the settled regulatory expectations of SMA members and other regulated industries, the D.C. Circuit concluded that EPA did not need to consider, and in fact, was prohibited from considering the real and readily anticipated consequences described herein.

The preceding section describes how the D.C. Circuit erred in both respects. Here, we illustrate the initial and

anticipated consequences of this flawed decision on the EAF steel manufacturing industry.

A. The Actions that Flow from a NAAQS Revision are Costly and Burdensome

A NAAQS revision sets in motion a comprehensive, multiyear regulatory process that reshapes the permitting environment for every significant source of the regulated pollutant nationwide. Once EPA promulgates or revises a NAAQS, the states must classify every geographic area within their territories as in “attainment,” “nonattainment,” or “unclassifiable.” 42 U.S.C. § 7407(d)(1)(A).

i. Nonattainment Area Impacts

A nonattainment designation carries immediate and far-reaching consequences. It triggers stringent permitting requirements for any new or modified major stationary source and requires the affected state to adopt control measures sufficient to bring the area into attainment. 42 U.S.C. § 7502(c).

Existing sources in nonattainment areas must implement “reasonably available [emission] control measures as expeditiously as practicable.” *Id.* These measures often include costly control equipment, operational changes, and production limitations. Chamber of Commerce Pet. Br. at 10.

Any new or modified major source must meet the “lowest achievable emission rate” (“LAER”)—defined as the more stringent of (a) the tightest emission limitation contained in any State’s implementation plan for the same

class or category of source, or (b) the lowest emission rate “achieved in practice” by any such source. 42 U.S.C. §§ 7501(3), 7503(a)(2). As Petitioners note, LAER is determined on a national basis: if a single State adopts an aggressive emission limitation, or a single facility achieves an even lower rate in practice, that standard applies in every nonattainment area in the nation. Chamber of Commerce Pet. Br. at 11. For affected industries, LAER requirements can foreclose the permitting of new or expanded facilities in any area redesignated as nonattainment, even if a facility employs the most advanced pollution control technology commercially viable.

When EPA revises an existing NAAQS, this process begins anew, and areas that attained the prior standard may be redesignated nonattainment under the revised standard, subjecting otherwise-compliant sources to a more restrictive regulatory regime. That is the case with at least fourteen member companies that SMA is aware of. These facilities are located in counties that were in attainment with the prior $12 \mu\text{g}/\text{m}^3$ standard but are expected to be designated nonattainment with the revised standard in 2032. Env. Protection Agency, Presentation: Final Rule to Strengthen the National Ambient Air Quality Standards for Particulate Matter 14 (Feb. 7, 2024), available at <https://www.epa.gov/system/files/documents/2024-02/2024-pm-naaqs-final-overview-presentation.pdf>; Env. Protection Agency, EPA Projects 52 Counties would not Meet the Strengthened Standard in 2032 (Feb. 2024), available at [projected-county-list-2032-for-web.pdf](https://www.epa.gov/system/files/documents/2024-02/2024-pm-naaqs-final-overview-presentation.pdf); Testimony of Chad S. Whiteman, U.S. Chamber of Commerce, Hearing Before the Subcomm. on the Env’t of the H. Comm. on Energy & Com., 119th

Cong. 9–10 (2025), available at <https://www.congress.gov/119/meeting/house/118385/witnesses/HHRG-119-IF18-Wstate-WhitemanC-20250611.pdf>. EPA’s 2024 projections likely significantly underestimate the number of areas that are likely to be in nonattainment with EPA’s revised PM_{2.5} standard in 2032. In fact, EPA just recently informed 36 states that they have one or more areas that are likely to be in nonattainment with the new standard. Env. Protection Agency, Primary Annual Fine Particulate Matter Designations – State Initial Designations, available at <https://www.epa.gov/particle-pollution-designations/primary-annual-fine-particulate-matter-designations-state-initial> (last visited October 5, 2026).

An SMA member’s recently completed project illustrates the potential impacts of operating in a newly designated nonattainment area. This member operates a state-of-the-art EAF steelmaking facility that produces steel for critical domestic markets including automotive, agriculture, and construction, that depend on domestic steel availability, short supply chains, and dependable production capacity. In 2022, it obtained the preconstruction permit necessary to implement a \$735 million capital investment project to expand production capacity, improve operational reliability, and increase process efficiency.

To obtain the necessary preconstruction air permit, this facility conducted modeling to assess its expansion project’s anticipated impacts on ambient PM_{2.5} concentrations. The modeled impact of the project on ambient PM_{2.5} concentrations was 11 $\mu\text{g}/\text{m}^3$, which allowed the permit to be issued because the PM_{2.5} standard at the time was 12 $\mu\text{g}/\text{m}^3$. But in an area re-designated as

nonattainment under EPA's revised $9 \mu\text{g}/\text{m}^3$ standard, even a well-controlled and economically important project such as this would have difficulty obtaining the requisite permit. Under the materially different permitting environment presented by EPA's off-cycle revision to the $\text{PM}_{2.5}$ standard, if this project could be permitted at all, it would likely only be through extensive air modeling, emissions offsets, and control measures that could easily have made the project economically unviable or at least too uncertain to pursue.

Furthermore, any projects in nonattainment areas require obtaining emission offsets. The relevant statute states that a nonattainment permit (a/k/a an NNSR permit) may be issued if, among other things: "[B]y the time the source is to commence operation, sufficient offsetting emissions reductions have been obtained, such that total allowable emissions from [new and existing sources in the area] and from the proposed source will be sufficiently less than total emissions from existing sources . . . prior to the application for such permit to construct or modify so as to represent . . . reasonable further progress." 42 U.S.C. § 7503(a)(1)(A). Offsetting emission reductions "[S]hall be, by the time a new or modified source commences operation, in effect and enforceable and shall assure that the total tonnage of increased emissions of the air pollutant from the new or modified source shall be offset by an equal or greater reduction, as applicable, in the actual emissions of such air pollutant from the same or other sources in the area." 42 U.S.C. § 7503(c). But in many instances, areas not previously in nonattainment do not have a program in place for obtaining emissions offsets, meaning that any facilities within the newly-non-attaining areas in such states may not be capable of

expanding at all, regardless of any modeling efforts, for the many months to even years that it will take for the states to create an offset program and identify available offsets. This uncertainty can be fatal to sustaining the investment needed to pursue and maintain projects in those newly designated areas.

ii. Prevention of Significant Deterioration

The fourteen SMA member facilities in areas previously projected by the EPA to become and remain in nonattainment with the revised NAAQS represent only a fraction of the EAF steelmaking facilities slated to be impacted by EPA's off-cycle revision. In areas designated as attainment or unclassifiable, the Prevention of Significant Deterioration ("PSD") program governs the construction of major new sources and major modifications to existing sources. To obtain permits to build, applicants must demonstrate, through complex air quality modeling, that the proposed source "will not cause, or contribute to, air pollution in excess of" the applicable NAAQS. 42 U.S.C. § 7475(a)(3). A revised NAAQS instantly tightens this modeling threshold. Although we do not agree with the conclusion, the D.C. Circuit has held that permit applicants, including those with applications already pending, must show that their planned projects will not cause ambient concentrations to exceed the new, lower standard. See *Murray Energy Corp.*, 936 F.3d at 624–26 (holding that revised NAAQS apply immediately to pending permit applications). This often requires significant and costly redesign of planned projects. Chamber of Commerce Pet. Br. at 10–11.

In revising the $\text{PM}_{2.5}$ NAAQS from $12\text{ }\mu\text{g}/\text{m}^3$ to $9\text{ }\mu\text{g}/\text{m}^3$, EPA significantly limited the available ambient “headroom” for new industrial development even in attainment areas. Thus, in the potentially hundreds of counties projected to attain the revised $9\text{ }\mu\text{g}/\text{m}^3$ standard (*e.g.*, concentrations of 7 to $8\text{ }\mu\text{g}/\text{m}^3$), projects with modeled impacts as little as $1\text{--}2\text{ }\mu\text{g}/\text{m}^3$ could cause or contribute to an exceedance of the standard. Looking only at counties with monitors based on air quality data from 2020–2022, over 100 counties fall within the range of 7 to $8\text{ }\mu\text{g}/\text{m}^3$, putting at risk any projects therein. Env. Protection Agency, Fine Particle Concentrations for Counties with Monitors Based on Air Quality Data from 2020–2022 (Feb. 2024), available at https://www.epa.gov/system/files/documents/2024-02/table_annual-pm25-county-design-values-2020-2022-for-web.pdf; *see also* Testimony of Chad S. Whiteman at 9–10. Many new EAF steel manufacturing facilities and major modifications are likely to exceed this $1\text{--}2\text{ }\mu\text{g}/\text{m}^3$ increment.

For instance, an SMA member experiencing sustained customer demand beyond its available production capacity recently evaluated expanding one of its existing facilities, which would allow the company to use established infrastructure, utilities, transportation networks, workforce, and support services, avoiding many of the costs associated with developing a new greenfield facility. But given the severely limited “headroom” in the wake of EPA’s off-cycle NAAQS revision, air quality modeling showed that the revised $\text{PM}_{2.5}$ standard would be exceeded even for relatively small increases in melt tonnage. As a result, the company abandoned its efforts to meet customer demand by expanding production capacity at its existing facilities.

As of September 2026, the company has declined customer requests totaling approximately 21,500 tons during the year through its formal request-and-approval process because available production capacity had already been allocated. This has been a recurring constraint throughout the year, rather than a one-time disruption, requiring the company to prioritize existing customer commitments and limit additional business. The 21,500-ton figure captures only requests submitted through the formal approval process and does not represent all unmet demand. And based on discussions with purchasers of domestic steel, it is likely that additional volumes would be purchased if a reliable domestic supply were available. Those indications of additional demand are not included in the reported total.

The company continues to evaluate the capacity, customer commitments, operating capabilities, service expectations, and economics needed to support expansion of its domestic melting and rolling operations. However, PM_{2.5} permitting considerations remain a central barrier to its ability to respond to unmet domestic demand, which, in turn, is fulfilled by higher-emitting overseas competitors that, depending on their location, likely contribute to PM_{2.5} nonattainment in the United States.

In addition to constraining SMA members' ability to expand and improve their existing facilities, the widespread lack of "headroom" caused by EPA's off-cycle revision is also currently presenting a formidable barrier to siting and permitting new facilities. For example, in 2024, a domestic iron casting manufacturer evaluated construction of a new melting and casting facility in response to customer demand for domestic alternatives

to iron castings currently supplied from Asia. Because of EPA's off-cycle revision in 2024, PM_{2.5} air modeling materially affected the site requirements. Although the manufacturing operation itself required less land, the company determined that a site of at least 100 acres was necessary to provide sufficient separation to achieve acceptable air quality modeling results.

A site selection consultant identified more than 400 potential locations throughout the Midwest. But because so many of the potential sites were in areas with little or no headroom under the revised PM_{2.5} NAAQS, only eight of the more than 400 potential locations were deemed plausible from an air permitting perspective. None of those eight locations met the company's normal logistical requirements. Each was too far from the combination of raw material suppliers, customers, existing operations, and transportation routes needed to support cost-effective movement of materials and finished products. Locating the facility at any of those sites would have required additional truck miles and associated transportation emissions. Those additional emissions were not included in the facility-specific air permitting analysis, even though they would have resulted from locating the project farther from suppliers and customers.

Ultimately, the company selected one site for detailed evaluation because it offered the best available combination of labor availability and transportation infrastructure. Even at that location, logistics remained less favorable than the company would normally require. Achieving acceptable air modeling results also required additional design measures, including constructing stacks approximately 150 feet tall. When combined with the

additional infrastructure and logistics costs associated with the site, these requirements made the project economically unviable. The company shelved the project; but customer demand remains, now being met by imports from Asia.

As these examples show, for capital-intensive manufacturing investments such as EAF steel facilities serving critical domestic markets, permitting predictability is a prerequisite for committing the hundreds of millions of dollars required to build or expand a modern facility. These major investments are evaluated against market demand, customer needs, technology, permitting requirements and expected returns. When permitting outcomes become uncertain, that uncertainty becomes a material factor in capital planning. Companies defer, redesign, or abandon projects not because they are unwilling to invest responsibly, but because the permitting pathway no longer provides the degree of predictability necessary to support major capital commitments. In addition to imposing higher compliance costs on existing operations, the revised NAAQS standard has had a chilling effect on domestic manufacturing investment.

Importantly, all of these examples represent costs and other economic impacts that the D.C. Circuit decision allowed EPA to ignore and, if allowed to remain, would compel EPA to ignore in the future.

CONCLUSION

The D.C. Circuit's decision excuses EPA from the Clean Air Act's thorough-review requirement for off-cycle revisions and permits the agency to disregard costs when deciding whether to undertake discretionary action. The Court can remedy these procedural and legal defects.

For the reasons set forth above, as well as those set forth in the petition, the Court should grant the petitions for a writ of certiorari filed by the Chamber of Commerce of the United States, *et al.*, and Kentucky, *et al.*

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