

Joint Comments of Clean Air Task Force, Environmental Defense Fund, and Sierra Club on EPA’s Proposed “Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review” Pertaining to EPA’s Solicitation of Comment on Significant Contribution Finding Under Section 111 of the Clean Air Act.

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Clean Air Task Force, Environmental Defense Fund, and Sierra Club hereby submit the following comments on EPA’s proposed rule “Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review,” 84 Fed. Reg. 50,244 (Sept. 24, 2019).¹ These comments focus on EPA’s obligation to regulate pollutants emitted by source categories listed under section 111 of the Clean Air Act.

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I. Introduction

Commenters support EPA’s proposal “to retain its current interpretation that it is not required to make a pollutant-specific [significant contribution finding (SCF)]” before regulating a pollutant from a listed source category under section 111 of the Clean Air Act (“CAA,” or “Act”).² EPA must give effect to the plain language of section 111, which is not susceptible to a different reading. Yet the agency undertakes a fishing expedition in a conspicuous effort to erect new, unnecessary, and unauthorized barriers to regulating dangerous air pollution under an Act devoted to “pollution prevention.”³ Specifically, the agency asks for comment on hypothetical interpretations of the Act that *would* require a pollutant-specific SCF prior to regulating a pollutant emitted from a listed source category.

Commenters note, however, that while EPA solicits comments on whether it should revise its position, the agency fails to propose any specific change or alternative position.⁴ And on a wide range of questions, the Proposal fails to identify the “terms or substance,”⁵ or the “major legal interpretations,”⁶ underlying any potential alternative. A final rule that does not retain EPA’s current interpretation of CAA section 111 as not requiring a pollutant-specific SCF would therefore not be a logical outgrowth of this Proposal.⁷ Any change to EPA’s current interpretation would have broad consequences.⁸ Before making any change to that interpretation, EPA would be obligated to propose the specific nature of the proposed change, explain its reasoning and disclose its effects, and seek public comment. Only then would the public have adequate notice and be able to make informed comments.⁹ Furthermore, without clearly

² 84 Fed. Reg. 50,244, 50,261 (Sept. 24, 2019) (Proposal).

³ 42 U.S.C. § 7401(c).

⁴ Commenters note that EPA has included a generalized solicitation of comments on this issue in other rulemakings particular to specific source categories and pollutants. *See, e.g.*, EPA, “Review of Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units,” 83 Fed. Reg. 65,424, 65,432 n.25 (Dec. 20, 2018). Commenters here submitted comments there as well. *See* Joint Comments of Environmental and Public Health Organizations on EPA’s Proposed “Review of Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units” Pertaining to EPA’s Basis for Regulating Carbon Pollution from Electric Generating Units Under Section 111 of the Clean Air Act, Doc. No. EPA-HQ-OAR-2013-0495-12590 (Mar. 18, 2019).

⁵ 5 U.S.C. § 553(b)(3).

⁶ 42 U.S.C. § 7607(d)(3)(C).

⁷ *Envtl. Integrity Project v. EPA*, 425 F.3d 992, 996 (D.C. Cir. 2005) (“The ‘logical outgrowth doctrine’ does not extend to a final rule that finds no roots in the agency’s proposal because something is not a logical outgrowth of nothing, nor does it apply where interested parties would have to divine the agency’s unspoken thoughts.” (internal citations omitted)).

⁸ A proposal specific to certain methane regulations for the oil and gas source category is unlikely to draw attention from the full spectrum of stakeholders whose comments should inform any holistic consideration of the interpretation and implementation of section 111. Any potential agency action on broad questions of CAA interpretation and application should not be undertaken by appending sweeping comment solicitations to specific rules. Even if the agency does so on multiple occasions, those rulemakings would nonetheless fail to alert all stakeholders to a possible change in interpretation, and the repetitive and divergent discussion of alternative interpretations in these rulemakings evinces the inefficiency and legal risk of such a haphazard approach. In other words, solicitation of comments concerning hypothetical resolutions to unspecified problems, untethered from any consideration of relevant factual settings, is counterproductive in the context of a proposed rulemaking in which the agency has already determined not to change its announced approach, and indeed may lead to legal error precisely because it is unmoored from all factual inquiry.

⁹ *Ne. Md. Waste Disposal Auth. v. EPA*, 358 F.3d 936, 952 (D.C. Cir. 2004) (“A rule is deemed a logical outgrowth if interested parties ‘should have anticipated’ that the change was possible, and thus reasonably should have filed

proposing any alternative interpretation that would authorize a pollutant-specific SCF, EPA in a logical nonsequitur solicits comment on criteria for pollutant-specific SCFs under section 111.¹⁰

EPA's consideration of comments on these abstract issues, "no matter how careful," cannot cure the defect of inadequate notice and lawfully support a final rule that alters EPA's current interpretation.¹¹ Thus, stakeholder comments in response to this Proposal could not somehow rectify EPA's failure to provide adequate notice of a proposed change to its current interpretation. "EPA must *itself* provide notice of a regulatory proposal. Having failed to do so, it cannot bootstrap notice from a comment."¹²

Nevertheless, we submit comments here out of an abundance of caution and without waiving any objections to the lack of adequate notice, the hypothetical nature of the questions EPA poses, or the lack of any agency reasoning or identifiable alternative position, and we retain the right to modify these comments if EPA subsequently provides further information about its intentions or views. In this context, commenters explain below why retaining the current interpretation of CAA section 111 as not requiring a pollutant-specific SCF is the only permissible reading of the statute and respond to EPA's solicitation regarding the "criteria" to be used in evaluating a listed source category's contribution to dangerous air pollution.

II. Section 111 Unambiguously Excludes a Pollutant-Specific SCF, and Any Reading of the Statute To Impose Such a Requirement Would Be Unreasonable.

A. The Plain Language of Clean Air Act Section 111(b)(1)(A) Pertains to Listing a "Category of Sources," Not to Regulating a Pollutant.

Section 111(b)(1)(A) of the Clean Air Act directs EPA to list *source categories* that, as a category, cause or significantly contribute to dangerous air pollution. The statute provides:

The Administrator shall...publish (and from time to time thereafter shall revise) a list of categories of stationary sources. He shall include a category of sources in such list if in his judgment it causes, or contributes significantly to, air pollution which may reasonable be anticipated to endanger public health or welfare.¹³

The Agency admits the language of the statute "does appear to contemplate that the EPA is required to make a SCF for the source category only when it is first added to the list."¹⁴ By the plain terms of this provision, the Administrator must determine that a "*category of sources...causes, or contributes significantly to, air pollution...*" to list a source category under

their comments on the subject during the notice-and-comment period." (quoting *City of Waukesha v. EPA*, 320 F.3d 228, 245 (D.C. Cir. 2003)).

¹⁰ 84 Fed. Reg. at 50,261, 50,269.

¹¹ *McLouth Steel Prod. Corp. v. Thomas*, 838 F.2d 1317, 1323 (D.C. Cir. 1988).

¹² *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 549 (D.C. Cir. 1983).

¹³ 42 U.S.C. § 7411(b)(1)(A).

¹⁴ 84 Fed. Reg. at 50,263.

section 111.¹⁵ “[T]he agency[] must give effect to the unambiguously expressed intent of Congress.”¹⁶

Once the category is listed, after a finding that it causes, or contributes significantly to, dangerous air pollution, the Administrator must within one year “publish proposed regulations, establishing Federal standards of performance for new sources” and within one year of publication shall issue standards “he deems appropriate.”¹⁷ Interpreting these same provisions regarding emissions of another climate-forcing pollutant from power plants, the Supreme Court stated: “EPA may not decline to regulate carbon dioxide emissions from powerplants if refusal to act would be ‘arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.’”¹⁸

Section 111 does not require or allow for, explicitly or implicitly, a second, pollutant-specific SCF before regulating a pollutant at the time of listing or thereafter. To be sure, the purpose of section 111, and the Act generally, is to abate dangerous air pollution—and therefore a reasonable decision not to regulate a pollutant must take full account of factors such as the quantity and characteristics of the pollutant emitted and the harmful effects it causes.¹⁹ Section 111(b)(1)(A), however, does not by its terms govern this inquiry, and no “significance” finding is required in order for EPA to regulate a pollutant emitted by a listed source category.

EPA has long properly maintained that “[t]he plain language of section 111(b)(1)(A) provides that such findings are to be made for source categories, not for specific pollutants emitted by the source category.”²⁰ “Determinations regarding the specific pollutants to be regulated are made, not in the initial endangerment finding, but at the time the performance standards are promulgated.”²¹ The courts have also long recognized that the section is initially directed at source categories.²²

Yet despite the statutory language and structure indicating that no pollutant-specific SCF is required, EPA inquires whether 1) its current interpretation, or 2) its alternative reading is the “only permissible reading,” or whether 3) section 111(b)(1)(A) is ambiguous such that the agency could interpret it to require a pollutant-specific SCF.²³ The answer is “yes” to EPA’s first question, and “no” to the latter two.

First, as described above, the agency’s current interpretation—that it is not required to make a pollutant-specific SCF—is the only permissible reading of section 111(b)(1)(A).

¹⁵ 42 U.S.C. § 7411(b)(1)(A) (emphasis added).

¹⁶ *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council*, 467 U.S. 837, 842–43 (1984).

¹⁷ 42 U.S.C. § 7411(b)(1)(B).

¹⁸ *Am. Elec. Power Co. v. Connecticut*, 564 U.S. 410, 427 (2011) (quoting 42 U.S.C. § 7607(d)(9)(A)).

¹⁹ *See Massachusetts v. EPA*, 549 U.S. 497, 533 (2007) (“[The] use of the word ‘judgment’ is not a roving license to ignore the statutory text. It is but a direction to exercise discretion within defined statutory limits.”).

²⁰ 74 Fed. Reg. 51,950, 51,957 (Oct. 8, 2009).

²¹ *Id.*

²² *See Am. Elec. Power Co.*, 564 U.S. at 424 (“Section 111 of the Act directs the EPA Administrator to list ‘categories of stationary sources’ that ‘in [her] judgment...cause[e], or contribut[e]...’” (quoting 42 U.S.C. § 7411(b)(1)(A)) (emphasis added)).

²³ 84 Fed. Reg. at 50,263.

Second, the alternative reading is impermissible: EPA cannot plausibly contend that Congress *unambiguously* compelled a pollutant-specific SCF in section 111(b)(1)(A), which exclusively addresses listing *source categories*, not specific pollutants. Interpreting section 111(b)(1)(A) to *require* an SCF every time the agency intends to regulate a pollutant from a listed source category would be a mistake of law. EPA cannot adopt constraints on its own regulatory authority by “read[ing] ambiguity into a clear statute.”²⁴ “An agency regulation must be declared invalid, even though the agency might be able to adopt the regulation in the exercise of its discretion, if it was not based on the [agency’s] own judgment but rather on the unjustified assumption that it was Congress’ judgment that such [a regulation is] desirable.”²⁵

Third, interpreting section 111(b)(1)(A) as ambiguous with respect to whether a pollutant-specific SCF is required before promulgating standards for a pollutant would be unreasonable because the language of the section is not directed at the promulgation of standards—it is solely directed at the requirements for listing a source category. There is simply no language in section 111(b)(1)(A) that is directed at, or could be interpreted to pertain to, the promulgation of standards of performance. Instead, section 111(b)(1)(B) addresses the promulgation of standards, and nowhere does it mention or implicitly require a pollutant-specific SCF. Rather, it describes the schedule and process by which EPA “*shall*” propose, promulgate, and review (and, where appropriate, revise) standards.²⁶ As such, the agency must regulate the pollutants emitted by a listed source category unless there are compelling and well-supported reasons, grounded in the statute, not to regulate.

B. There Is No Indication That Congress Meant Something Other Than What Section 111(b)(1)(A) Plainly States.

Faced with the plain language of section 111(b)(1)(A), EPA suggests that it could “avoid a literal interpretation at *Chevron* step one...[by] show[ing] either that, as a matter of historical fact, Congress did not mean what it appears to have said, or that, as a matter of logic and statutory structure, it almost surely could not have meant it.”²⁷ Yet the bar for any counter-statutory readings, such as (the agency admits) its “alternative reading” of section 111(b)(1)(A), is extraordinarily high. Thus, in *New York v. EPA*, where EPA attempted to erect barriers to controlling pollution that were contrary to the statute and historical practice, the court concluded that “Congress’s basic goals in enacting the 1977 amendments—to intensify the war against air pollution... demonstrate the futility of EPA’s endeavor.”²⁸ EPA cannot show that historical fact prevents a literal reading of the statute, and any effort to do so is belied by nearly 50 years of abiding by the plain language of section 111.²⁹

²⁴ *Massachusetts*, 549 U.S. at 531; see also *Pascavage v. Office of Pers. Mgmt.*, 773 F. Supp. 2d 452, 459 (D. Del. 2011) (“[W]hen Congress has directly addressed an issue, an agency may not engraft additional conditions onto the statute.”) (citing *Bureau of Alcohol, Tobacco & Firearms v. Fed. Labor Relations Auth.*, 464 U.S. 89 (1983)).

²⁵ *Prill v. NLRB*, 755 F.2d 941, 948 (D.C. Cir. 1985) (internal citations omitted).

²⁶ 42 U.S.C. § 7411(b)(1)(B) (emphasis added).

²⁷ 84 Fed. Reg. at 50,263 (citing *Engine Mfrs. Ass’n v. EPA*, 88 F.3d 1075, 1089 (D.C. Cir. 1996)).

²⁸ 443 F.3d 880, 889 (D.C. Cir. 2006).

²⁹ *Cf. id.*

Tellingly, in the four cases EPA cites for the rare instance where an agency can deviate from the clear language of the statute, the court *did not* depart from the plain language. As these holdings show, this doctrine may only apply in truly exceptional circumstances. Section 111(b)(1)(A) comes nowhere close to reaching that threshold, and—as in the cases EPA cites—there are no justifiable reasons to depart from the language of that provision.

In *Engine Manufacturers Association v. EPA*, EPA sought to read the word “new” into section 209(e)(2) of the CAA to better conform regulation of nonroad sources to the parallel program for motor vehicles, which was extensively cross-referenced.³⁰ However, the court concluded that “simply because Congress has addressed motor vehicle emissions in one fashion does not mean that it could not address nonroad emissions in a slightly different manner.”³¹ These two programs were significantly more related than the sections of the CAA to which EPA posits section 111(b)(1)(A) should be conformed.³² However, the court refused to align them in a way that was contrary to the plain statutory language, insisting that it “must take Congress at its word.”³³

In *United States v. Ron Pair Enterprises*, respondent sought to avoid certain interest payments in a bankruptcy proceeding, relying on a historical distinction between two types of secured interest claims at common law. As the Court observed, when the Bankruptcy Code was written that distinction was eliminated.³⁴ Even though collapsing the claims created some tension with public policy goals, the Court held that “Congress expressly chose to create that alleged tension. There [was therefore] no reason to suspect that Congress did not mean what the language of the statute says.”³⁵ Similarly, the Court in *Logan v. United States* saw “no warrant to stray from the ... text” in the Armed Career Criminal Act even though strict application of the language led to anomalous results in some instances.³⁶

And in *Watt v. Alaska*, two statutes on their face addressed a formula for distribution of revenues received from oil and gas leases on national wildlife refuges in dramatically divergent ways.³⁷ The Court could not give effect to both statutes and therefore looked to the legislative history and context of the later-enacted statute to determine that “Congress was concerned almost exclusively with problems related to acquired refuge lands.”³⁸ As such, the Court found “no clearly expressed congressional intention to repeal [the prior] provision by implication.”³⁹ Therefore, the more recent enactment only applied to *acquired* refuge lands and had no impact on the lands previously regulated. Thus, *Watt* is inapposite to EPA’s supposition that section 111 does not mean what it says: section 111 has *never* required EPA to make a pollutant-specific SCF, so there is no previous regulatory scheme to maintain through the canon against implied repeal.

³⁰ 88 F.3d at 1088.

³¹ *Id.* at 1091.

³² See section I.G below.

³³ 88 F.3d at 1093.

³⁴ 489 U.S. 235, 240, 248 (1989).

³⁵ *Id.* at 246; see also *id.* at 242 (“The language and punctuation Congress used cannot be read in any other way.”).

³⁶ 552 U.S. 23, 37 (2007).

³⁷ 451 U.S. 259, 265 (1981).

³⁸ *Id.*

³⁹ *Id.* at 273.

In these cases, the courts gave effect to the plain statutory language despite claims that they led to anomalous results, tension with public policy, and inconsistency with related programs. By contrast, reading section 111(b)(1)(A) in accordance with its plain meaning would *further* the goals of the statute to reduce dangerous air pollution and protect public health and welfare, since it would avoid an unnecessary layer of administrative procedure before EPA could issue standards for a pollutant from an already-listed source category. Therefore, EPA must respect the language Congress chose.

C. EPA May Not Decline to Regulate Pollutants from a Listed Source Category If Refusal To Act Would Be Arbitrary or Capricious.

EPA’s current position is that it must make an SCF only when listing a source category “but that thereafter, when it regulates pollutants emitted from the source category, it needs only a rational basis to do so.”⁴⁰ However, while the rational basis standard is correct, the statute demands more of the agency if it seeks to avoid regulating a particular pollutant from a listed source category. As discussed above, this position comports with the unambiguous language of the statute. Furthermore, the language of section 111(b)(1)(B) is mandatory in nature: EPA *shall* propose, promulgate, review, and (where appropriate) revise standards from a listed category.⁴¹ Thus, the agency *must* regulate particular pollutants from a listed source category unless doing so would be arbitrary and irrational. As the Supreme Court has confirmed, EPA may not decline to set standards for specific pollutants that are emitted by a listed source category “if refusal to act would be ‘arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.’”⁴²

Under this standard, any EPA decision not to regulate a pollutant from a listed source category must meet a high bar, given the purpose of section 111 as well as the Act’s overarching goal to “protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare.”⁴³ For example, EPA might justify a decision not to set standards for a particular pollutant from a particular source category if the pollutant does not pose a danger or is emitted in *de minimis* quantities by that source category. These factors reasonably relate to the purposes of the statute (as described above) and to section 111: the need for federally-uniform standards that reduce harmful emissions from large pollution sources.⁴⁴

EPA seems to reject the rational basis standard as “largely undefined.”⁴⁵ In so doing, the Proposal appears to mistake a rational basis standard for something different than the “arbitrary and capricious standard.”⁴⁶ In fact, a rational basis is an element of arbitrary and capricious review, which is *quite* well defined.⁴⁷ In the seminal case defining “[t]he scope of review under the ‘arbitrary and capricious’ standard” the Supreme Court explained that “the agency must

⁴⁰ 84 Fed. Reg. at 50,246.

⁴¹ 42 U.S.C. § 7411(b)(1)(B) (emphasis added).

⁴² *Am. Elec. Power Co.*, 564 U.S. at 427.

⁴³ 42 U.S.C. § 7401(b)(1).

⁴⁴ *Id.* § 7411(b)(1)(A).

⁴⁵ 84 Fed. Reg. at 50,263.

⁴⁶ *Id.*

⁴⁷ *Contra id.* (describing a ‘rational basis’ as “largely undefined”).

examine the relevant data and articulate a satisfactory explanation for its action including a *rational connection* between the facts found and the choice made.”⁴⁸ The Court affirmed that it “may not set aside an agency rule that is *rational*, based on consideration of the relevant factors and within the scope of the authority delegated to the agency by the statute.”⁴⁹ This standard applies whether or not Congress has expressly specified the criteria relevant to the agency’s decision.

In practice, this standard means that EPA *must* regulate a pollutant unless regulating the pollutant would be arbitrary under the statute. To give one relevant example, EPA must regulate greenhouse gas (GHG) emissions from any source category whose emissions of this pollutant must be reduced as part of the global collective solution to the climate crisis. (As discussed in separate comments submitted to this docket, this is assuredly true with respect to methane emissions from the oil and gas industry.) If EPA declined to issue standards of performance to limit those emissions, it would reflect a decision that “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.”⁵⁰

D. EPA Has Long Recognized That Section 111(b)(1)(A) Concerns Source Categories.

EPA itself has long recognized that the plain language of section 111 requires an SCF to list a source category but not to regulate a pollutant from the source category. The Proposal recognizes that EPA “has proceeded under the implicit assumption that CAA section 111(b)(1)(A) does not require a pollutant-specific SCF through many NSPS rulemakings over a lengthy period.”⁵¹ For nearly 50 years EPA has decided to regulate pollutants from a listed source category without any pollutant-specific SCF.

Indeed, EPA’s earliest actions under section 111 affirm this interpretation of the statute. In 1971, for example, the agency identified the first five source categories to include on the list required under section 111(b)(1)(A) (contact sulfuric acid plants, fossil fuel-fired steam generators with a heat input greater than 250 mmBtu/hour, municipal incinerators with a refuse charging rate greater than 2000 lbs/hour refuse charging rate, nitric acid plants, and Portland cement plants).⁵² Nowhere in the Federal Register notice for these listings did EPA even mention any specific pollutants emitted by these sources, much less tabulate these sources’ emissions on a pollutant-by-pollutant basis or aver whether or which specific pollutants met a particular threshold for “significance.”⁵³ Rather, the agency reiterated that it was fulfilling its statutory mandate to “publish . . . a *list of categories of stationary sources* which [EPA] determines may contribute significantly to air pollution which causes or contributes to the endangerment of

⁴⁸ *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42-43 (1983) (internal quotations omitted) (emphasis added).

⁴⁹ *Id.* (emphasis added).

⁵⁰ *Id.* at 43.

⁵¹ 84 Fed. Reg. at 50,266.

⁵² 36 Fed. Reg. 5931 (Mar. 31, 1971).

⁵³ *See generally id.*

public health or welfare,” not to evaluate emissions of individual pollutants from those categories.⁵⁴

Nor did the agency suggest in either the proposed or final rules establishing performance standards for the initial five source categories that section 111(b)(1)(A)’s SCF requirement applied to the regulation of each pollutant.⁵⁵ The same is true of EPA’s listing of the next seven source categories in 1973–74.⁵⁶ As EPA has demonstrated since the early 1970s and affirmed repeatedly since then,⁵⁷ section 111(b)(1)(A) requires a source category-level SCF only, and only at the listing stage—not a pollutant-specific SCF in either listing a source category or regulating a pollutant emitted by a listed source category.

For example, standards of performance for particulate matter emissions from petroleum refineries were finalized on March 8, 1974.⁵⁸ Fifteen years later, the agency finalized standards for SO_x emissions from the already-listed source category.⁵⁹ EPA stated that, “[a]s prescribed by section 111, promulgation of these standards was preceded by the Administrator’s determination [on June 11, 1973] that petroleum refineries contribute significantly to air pollution.”⁶⁰ The agency carefully applied the section 111 factors to determine the best demonstrated technology for SO_x but did not make an additional SCF. Thus, EPA has long understood that regulating pollutants from a source category does not require a pollutant-specific SCF.

Ten years ago, EPA added emission standards for SO₂, NO_x and CO from the previously listed coal preparation and processing plant source category.⁶¹ The agency did not make additional SCFs for the newly-regulated pollutants and, in responding to comments claiming SCFs were necessary, explained that:

The plain language of section 111(b)(1)(A) provides that [SCFs] are to be made for source categories, not for specific pollutants emitted by the source category. . . . Determinations regarding the specific pollutants to be regulated are made, not in the initial endangerment finding, but at the time the performance standards are promulgated. . . . The [SCF] is used to identify categories of sources for regulation, not to dictate the substantive content of the required standards of performance.⁶²

The agency catalogued numerous occasions when it had taken the same approach in response to the plain language of section 111, considering or adding standards for new pollutants

⁵⁴ *Id.* at 5931 (emphasis added).

⁵⁵ *See generally* 36 Fed. Reg. 15,704 (Aug. 17, 1971) (proposed standards of performance); 36 Fed. Reg. 24,876 (Dec. 23, 1971) (final standards of performance).

⁵⁶ *See* 38 Fed. Reg. 15,380 (June 11, 1973) (listing asphalt concrete plants, petroleum refineries, storage vessels for petroleum liquids, secondary lead smelters, secondary brass and bronze ingot production plants, iron and steel plants, and sewage treatment plants); 38 Fed. Reg. 15,406 (June 11, 1973) (proposed standards of performance); 39 Fed. Reg. 9308 (Mar. 8, 1974) (final standards of performance).

⁵⁷ *See, e.g.,* 77 Fed. Reg. 22,392, 22,412 (Apr. 13, 2012); 80 Fed. Reg. 64,510, 64,529–30 (Oct. 23, 2015); 81 Fed. Reg. 35,824, 35,876 (June 3, 2016).

⁵⁸ 39 Fed. Reg. 9315 (Mar. 8, 1974).

⁵⁹ 54 Fed. Reg. 34,008 (Aug. 17, 1989).

⁶⁰ *Id.*

⁶¹ 74 Fed. Reg. 51,950 (Oct. 8, 2009).

⁶² *Id.* at 51,957.

from previously listed source categories without making a pollutant-specific SCF.⁶³ And as recognized in this Proposal, in 2015, EPA found that there was a “rational basis for regulating CO₂ under CAA section 111” for power plants.⁶⁴

E. Section 111 Provides Specific Criteria for How To Regulate a Pollutant.

The statute provides very specific criteria defining *how* to regulate the pollutant. EPA establishes “standards of performance” under section 111(b)(1)(B), which is a defined term:

The 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.⁶⁵

The elements “achievable,” “best,” “system of emission reduction,” “cost,” “health and environmental impact,” “energy requirements,” “adequately demonstrated,” and “amount of air pollution” reduced⁶⁶ ensure that a standard for emissions of a certain pollutant from a source category is effective, feasible, and cost-reasonable. With such clearly defined factors that EPA must take into account when setting the operative standards for emissions of pollutants, it is understandable that Congress did not require an SCF for each pollutant once a source category is found to contribute significantly to air pollution that may endanger public health or welfare. As we discuss later on in these comments, the factors in section 111(a)(1) cannot influence the threshold decision whether or not to regulate a pollutant emitted by an already-listed source category—which must be governed by the overriding purpose of mitigating harmful air pollution—they provide a secondary check on the reasonableness of the regulations that EPA ultimately promulgates.

F. The Word “Pollutants” in Section 111(a)(1) Does Not Imply That a Pollutant-Specific SCF Is Required Under Section 111.

In its quest for evidence that Congress included an unwritten requirement for a pollutant-specific SCF in section 111, EPA points to section 111(a)(1), which defines a “standard of performance” as a “standard for emissions of *air pollutants*.”⁶⁷ According to the agency, this may indicate that “Congress intended [section 111(b)(1)(A)] to require what is required in the other CAA provisions discussed here: A pollutant-specific finding.”⁶⁸ This supposition simply does not follow. First, if Congress wanted to include the word “pollutant” (as opposed to

⁶³ See 74 Fed. Reg. at 51,950 (citing 52 Fed. Reg. 24,624, 24,710 (July 1, 1987) (considering PM₁₀ controls in future rulemakings), 71 Fed. Reg. 9866 (Feb. 27, 2006) (establishing new PM standards for boilers), and 73 Fed. Reg. 35,838 (June 24, 2008) (adding NO_x limits for fluid catalytic cracking units, fluid coking units and process heaters to the refineries new source performance standards)).

⁶⁴ 80 Fed. Reg. 64,510, 64,530 (Oct. 23, 2015).

⁶⁵ 42 U.S.C. § 7411(a)(1).

⁶⁶ *Sierra Club v. Costle*, 657 F.2d 298, 326 (D.C. Cir. 1981).

⁶⁷ 84 Fed. Reg. at 50,264 (citing 42 U.S.C. § 7411(a)(1) (emphasis added by EPA)).

⁶⁸ *Id.*

“pollution”) in section 111(b)(1)(A), it could easily have done so, just as it did in section 111(a)(1).⁶⁹ The fact that Congress chose *not* to include the word “pollutant” in section 111(b)(1)(A) is evidence that Congress selected that provision’s words intentionally.

More importantly, the fact that standards of performance are based on “pollutants” has no bearing on whether EPA’s decision not to establish standards for a particular pollutant is arbitrary and capricious. Indeed, standards of performance are *necessarily* pollutant-specific: unlike work-practice standards (which are described at section 111(h)),⁷⁰ standards of performance are quantitative in nature and are usually (although not always)⁷¹ expressed as a maximum permissible concentration of a given pollutant, or as an emission rate (*i.e.*, a maximum allowable amount of pollution per unit of industrial input or output). It would be effectively impossible for EPA to express such standards with respect to a source category’s *pollution generally*: a particular concentration or emission rate that may be appropriate for one pollutant could be inappropriate for another. (For instance, whereas a standard of performance of 1,000 lbs/MWh for a coal-fired power plant might be appropriate with respect to carbon dioxide, that same standard would be nonsensically high for nitrogen oxides, sulfur dioxides, or mercury.) Further, different systems of emission reduction are available and effective for different types of pollutants. Thus, the fact that standards of performance must be promulgated on a pollutant-by-pollutant basis is simply inherent in how these requirements operate; it is an entirely different issue from whether EPA must make a pollutant-specific SCF and has no bearing on that question.

G. Other Sections of the Clean Air Act Support EPA’s Current Understanding That Pollutant-Specific SCFs Are Not Required Under Section 111.

In the Proposal, EPA cites a number of provisions of the Clean Air Act that, according to the agency, expressly require pollutant-specific SCFs.⁷² These include most prominently sections 108(a)(1)(A)–(B), 115(a), 202(a)(1), 211(c)(1), and 231(a)(2).⁷³ Further, in footnote 74, EPA cites a number of other provisions that it asserts are (or in earlier incarnations were) similar in some way to the preceding five provisions.⁷⁴ They include sections 112(a)(1), 129(e), 183(f)(1)(A), 211(c)(1)(A), 213(a)(1)–(4), and 615.⁷⁵ EPA argues that “[t]he fact that Congress saw fit to frame the cause or contribute requirement on a pollutant-specific basis for other CAA provisions might reasonably be viewed as heightening the anomaly of interpreting CAA section 111(b)(1)(A) not to impose the same requirement.”⁷⁶

Although the CAA does establish a number of programs that require pollutant-specific SCFs, EPA wrongly asserts that these provisions “might reasonably be viewed as heightening the

⁶⁹ 42 U.S.C. § 7411(a)(1).

⁷⁰ *Id.* § 7411(h).

⁷¹ Other permissible forms that standards of performance might take could be mass-based limitations (*i.e.*, a maximum limit of emissions for a given unit of time) or a mandatory percent reduction from a baseline concentration.

⁷² 84 Fed. Reg. at 50,264.

⁷³ 42 U.S.C. §§ 7408(a)(1)(A)–(B), 7415(a), 7521(a)(1), 7545(c)(1), 7571(a)(2).

⁷⁴ 84 Fed. Reg. at 50,265 n.74.

⁷⁵ 42 U.S.C. §§ 7412(a)(1), 7475(c)(1)(A), 7429(e), 7511b(f)(1)(A), 7547(a)(1)–(4), 7671n.

⁷⁶ 84 Fed. Reg. at 50,263.

anomaly of interpreting CAA section 111(b)(1)(A) not to impose the same requirement.”⁷⁷ This reasoning is exactly backwards. The inclusion of unambiguous requirements for pollutant-specific SCFs in other CAA provisions *highlights* the absence of such a requirement in section 111. As the Supreme Court has instructed, “[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.”⁷⁸

It makes good sense that Congress would structure section 111 differently from the other CAA provisions that EPA cites, which are functionally distinct from section 111. For example, a number of the provisions address a particular category or class of sources that has been pre-selected by Congress as requiring its own CAA program. In these provisions, the role of the SCF is not to determine *which* sources merit comprehensive regulation, but rather to zero in on the particular pollutants that must be controlled from a source category that Congress has *already singled out* for regulation. These provisions include section 183(f)(1)(A) (addressing standards applicable to the loading and unloading of tank vessels)⁷⁹ and section 213(a)(1)-(4) (governing emission standards for new nonroad engines and vehicles).⁸⁰ In contrast, section 111 does *not* pre-define any source category for regulation, but instead directs EPA to fulfill this obligation; that is the purpose of section 111(b)(1)(A). In this context, the SCF serves a decidedly different function: it guides EPA’s determination as to which source categories require regulation, a task that Congress assumed for itself in the other provisions described above.⁸¹

The second group of provisions that EPA cites are all oriented toward some specific kind or sub-class of pollutants in a way that section 111—which is geared toward source categories and does not focus on any particular type of pollutant—is not. For instance, section 108(a)(1)(A)–(B) charges the Administrator with determining which emissions should be classified as criteria pollutants subject to the national ambient air quality standards (NAAQS) because they contribute to dangerous air pollution and are emitted by numerous diverse mobile or stationary sources.⁸² Similarly, section 112 governs emission standards for hazardous air pollutants (HAPs), which the 1970 version of the statute defined as any non-NAAQS pollutant that, “in the judgment of the Administrator, may cause, or contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.”⁸³ And section 115(a)

⁷⁷ *Id.*

⁷⁸ *United States v. Gonzales*, 520 U.S. 1, 5 (1997) (internal quotations omitted).

⁷⁹ 42 U.S.C. § 7511b(f)(1)(A).

⁸⁰ *Id.* § 7547(a)(1)-(4).

⁸¹ Nor did Congress “conflate” the SCF required by section 111(b)(1)(A) to list a source category with the subsequent process of regulating emissions of various pollutants under section 111(b)(1)(B) and 111(d). 84 Fed. Reg. at 50,264. It is implausible that Congress would rest on any implication from section 111(b)(1)(A) that EPA must make a second SCF for each pollutant regulated—especially given that section 213(a)(4) requires just such a double finding for an air pollution problem that (1) emissions from new nonroad engines or vehicles contribute significantly to and (2) emissions from classes or categories of new nonroad engines or vehicles cause or contribute to, 42 U.S.C. § 7547(a)(4).

⁸² *Id.* § 7408(a)(1)(A)–(B).

⁸³ *Id.* § 1857c-7(a)(1) (1970). EPA specifically cites the 1970 version of section 112(a)(1) in footnote 74. In 1990, Congress significantly amended section 112 by establishing a primary list of HAPs at subsection (b)(1). *Id.* § 7412(b)–(d). The statute further directs EPA to update the list appearing at subsection (b)(1) “where appropriate” by “adding pollutants which present, or may present, through inhalation or other routes of exposure, a threat of adverse human health effects (including, but not limited to, substances which are known to be, or may reasonably be

concerns specific instances in which a pollutant or pollutants that originated in the United States cross an international border and endanger public health or welfare in a foreign country.⁸⁴

A pollutant-specific contribution finding is sensible for these programs: the agency's task is to identify all the air pollutants that contribute to an air pollution problem in order to determine whether they should qualify as NAAQS pollutants or HAPs, or whether they are harming public health or welfare in another country. This approach is markedly distinct from section 111, which is oriented toward *source categories* and requires them to achieve an emission limitation that reflects deployment of the best system of emission reduction for dangerous pollutants—and which does not focus on or even reference any particular type or sub-class of pollutants.⁸⁵

In the Proposal, EPA declines to evaluate how these provisions differ from section 111 and from one another, and *why* Congress included pollutant-specific requirements in some statutory sections and not in others. A closer analysis of the statute debunks the blunt-edged approach that EPA posits (though does not propose to adopt). Even if EPA could override the unambiguous language of section 111, its general musings about other CAA provisions provide it no basis to do so.

H. The Legislative History of Section 111 Does Not Support a Pollutant-Specific SCF Requirement.

1. The Legislative History of the 1977 Clean Air Act Amendments Does Not Change the Unambiguous Language of Section 111(b)(1)(A) Requiring a Category-Specific—Not a Pollutant-Specific—SCF.

The Clean Air Act's legislative history does not, and cannot, reverse the plain meaning of section 111 such that the provision could be interpreted to require a pollutant-specific SCF. As discussed above, the language of section 111(b) is perfectly clear: EPA must make an SCF only when it *lists* a source category, not when it issues standards for that source category. Furthermore, the SCF required under section 111(b)(1)(A) exclusively pertains to the source category's overall emissions and does not require the agency to make a pollutant-specific determination.

In an attempt to overcome the statute's plain language, EPA trawls through the legislative history of the 1977 Clean Air Act Amendments in search of scraps that might support an alternative reading. This approach "is fundamentally flawed. Legislative history cannot create

anticipated to be, carcinogenic, mutagenic, teratogenic, neurotoxic, which cause reproductive dysfunction, or which are acutely or chronically toxic) or adverse environmental effects whether through ambient concentrations, bioaccumulation, deposition, or otherwise, but not including releases subject to regulation under subsection (r) as a result of emissions to the air." *Id.* § 7412(b)(2).

⁸⁴ *Id.* § 7415(a)(1).

⁸⁵ Congress did, however, choose to *exclude* two particular sub-classes of emissions from coverage under section 111(d)'s emission guidelines for existing sources: pollutants that were already regulated as emitted by that source category either under section 108's NAAQS program or section 112's HAP program. *Id.* § 7411(d)(1). These exclusions indicate that Congress knew how to constrain or condition EPA's authority in regulating specific pollutants under section 111.

ambiguity in a clear statutory text.”⁸⁶ Indeed, “[i]t is elementary in the law of statutory construction that, absent ambiguity or unreasonable result, the literal language of a statute controls and resort to legislative history is not only unnecessary but improper.”⁸⁷ Section 111(b)(1)(A) is paradigmatic of a statute that is clear on its face and works perfectly well in practice according to its plain language; indeed, as discussed above, EPA has successfully administered this provision for decades with the understanding that it does not require pollutant-specific SCFs, and at no point in time has Congress intervened to force EPA to act otherwise, even as it enacted major CAA amendments at various times over the last 40 years.⁸⁸

EPA attempts to justify its exploration of the 1977 legislative history by asserting that, “[w]hile it is true that in drafting CAA section 111(b)(1)(A), Congress did not explicitly require the EPA to make an additional, pollutant-specific SCF, it seems reasonable to think that Congress may have intended pollutant-specific SCF findings [*sic*] but conflated them with the required source-category SCF finding [*sic*].”⁸⁹ Not only does the agency fail to show that Congress “may have intended” this outcome, what “seems reasonable” to EPA is irrelevant in light of what Congress *actually did*, which (EPA admits) was *not* to require a pollutant-specific SCF. EPA is obliged to administer the statute Congress passed, not the one that EPA thinks (for the first time, many decades later) it tried to pass. “As the Supreme Court has repeatedly explained . . . neither courts nor federal agencies can rewrite a statute’s plain text to correspond to its supposed purposes.”⁹⁰ EPA’s attempt to rectify Congress’s supposed “conflat[ion]” of (1) the SCF required to list a source category under section 111(b)(1)(A) and (2) a newfound, implicit requirement to make an SCF to regulate a pollutant under section 111(b)(1)(B) fails in the face of the statute’s unambiguous language.

2. The Legislative History of Section 111(b)(1)(A) Does Not Support the Argument That This Provision Requires a Pollutant-Specific SCF.

Even if a reading of section 111 as requiring a pollutant-specific SCF were not unambiguously foreclosed by the express language in section 111(b)(1)(A), the legislative history of the 1977 Clean Air Act Amendments in no way supports EPA’s claims that section 111(b)(1)(A) can reasonably be interpreted to include an invisible and unspoken requirement for a pollutant-specific SCF. Below, we address the various pieces of “evidence” EPA has located in the legislative history and explain why they do not, in fact, support the agency’s conclusion that “it seems reasonable to think that Congress may have intended pollutant-specific SCF findings [*sic*]” in section 111(b)(1)(B) but ineptly “conflated them with the required source-category SCF finding [*sic*].”⁹¹

⁸⁶ *Am. Fed’n of Gov’t Emps., AFL-CIO, Local 3669 v. Shinseki*, 709 F.3d 29, 35 (D.C. Cir. 2013).

⁸⁷ *Eagle-Picher Indus., Inc. v. EPA*, 759 F.2d 922, 930 (D.C. Cir. 1985).

⁸⁸ *Lorillard v. Pons*, 434 U.S. 575, 580 (1978) (“Congress is presumed to be aware of an administrative or judicial interpretation of a statute and to adopt that interpretation when it re-enacts a statute without change.”).

⁸⁹ 84 Fed. Reg. at 50,264.

⁹⁰ *Landstar Exp. Am., Inc. v. Fed. Mar. Comm’n*, 569 F.3d 493, 498 (D.C. Cir. 2009); *see also Coast All. v. Babbitt*, 6 F. Supp. 2d 29, 37 (D.D.C. 1998) (“If following that plain language, an agency cannot carry out Congress’ intent, then the remedy is not to distort or ignore Congress’ words, but rather to ask Congress to address the problem.”), *vacated as moot following the enactment of subsequent legislation, Coast All. v. Babbitt*, No. 98-5157, 1999 WL 58624 (D.C. Cir. Jan. 13, 1999).

⁹¹ 84 Fed. Reg. at 50,264.

- a. The purpose of the 1977 Clean Air Act Amendments contradicts the argument that Congress intended section 111(b)(1)(A) to require pollutant-specific SCFs.

First, EPA states that, in 1977, Congress amended various provisions of the Clean Air Act that required the agency to make some threshold endangerment finding before taking action, giving these provisions “generally the same phrasing as in CAA section 111(b)(1)(A) in relevant part.”⁹² According to EPA, these similarities revealed Congress’s intent to provide “a uniform standard of proof” across these different CAA programs, which (the agency now claims) entails a pollutant-specific SCF.⁹³

Yet EPA’s argument is internally contradictory. As the agency correctly notes, Congress intended to *strengthen* the CAA through the 1977 Amendments by removing obstacles toward regulatory action and requiring the Administrator to take preventive, not reactive, steps toward reducing air pollution. It would be directly at odds with this stated purpose for Congress to imply, through legislative history or unrelated changes to other provisions of the CAA, that there needs to be an additional layer of bureaucratic process under section 111—a new requirement for a pollutant-specific SCF in addition to a category-level SCF—before the Administrator could begin or continue issuing standards for a source category that emits dangerous air pollution.

- b. The 1977 Conference Report does not support the argument that section 111(b)(1)(A) requires pollutant-specific SCFs.

EPA next cites two sentences from the 1977 Conference Report’s summary of the House bill as implying a pollutant-specific requirement under section 111(b)(1)(A).⁹⁴ These sentences describe the House bill as “[p]rovid[ing] a uniform standard of proof for EPA regulation of air pollutants” under sections 108, 111, 112, 202, 211, and 231. It then states that “[i]n all future rulemaking in these areas, the Administrator could regulate any air pollutant from those sources, the emissions of which ‘in his judgment cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare.’”⁹⁵ EPA asserts that this latter sentence “may be evidence that Congress, in fact, intended to require the EPA (or, indeed, understood that the EPA had always been required), in promulgating a pollutant-specific NSPS under CAA section 111, to make a pollutant-specific finding, as it does under the other provisions mentioned in the Conference Report.”⁹⁶

This section in the Conference Report provides no such evidence. The drafters of this language in the Report clearly did not intend—and could not have intended—it to apply with precision to the CAA sections it ostensibly describes, as the exact phrase in quotes—“in his judgment cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare”—appears nowhere in the 1977 Amendments. Rather, it is a paraphrase of language that appears in some permutation in a number of sections throughout the statute and

⁹² *Id.*

⁹³ *Id.* (citing H.R. Rep. No. 94–1175, at 32–33 (1976)).

⁹⁴ 84 Fed. Reg. at 50,264.

⁹⁵ H.R. Rep. No. 95–564, at 183–84 (1977).

⁹⁶ 84 Fed. Reg. at 50,264–65.

that functions differently in each instance. Although the Report states that “[i]n all future rulemaking in these areas, the Administrator could regulate any air pollutant from those sources” covered under the listed provisions (section 108, 111, 112, 202, 211, and 231) so long as the requisite cause-or-contribute finding is met, this statement clearly does not describe how several of those sections actually work. For instance, the cause-or-contribute phrase that appears in section 108 relates *not* the to “the Administrator[’s] . . . regulat[ion] [of an] air pollutant from [a] source[,],” but instead to the Administrator’s decision as to which emissions to include on the list of NAAQS pollutants.⁹⁷ Indeed, the NAAQS program is an area-specific program, not a source-specific one, and it grants *states*, not the Administrator, the primary authority to directly control emissions to achieve the NAAQS.

The quoted text in the Conference Report also does not correctly apply to section 112. The 1977 incarnation of that provision defined “hazardous air pollutant” *not* as any pollutant which “in [the Administrator’s] judgment cause[s] or contribute[s] to air pollution which may reasonably be anticipated to endanger public health or welfare,” but instead as any pollutant “to which no ambient air quality standard is applicable and which in the judgment of the Administrator causes, or contributes to, air pollution which may reasonably be *anticipated to result in an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness.*”⁹⁸ Despite the Conference Report’s assertion, this is quite demonstrably not the same standard of proof as the “endangers public health and welfare.” (Perhaps not coincidentally, EPA omits any reference to section 112 in its discussion of the Conference Report.⁹⁹)

Finally, section 111 departs from the Report’s quoted text in that it requires a finding of “significan[ce]” regarding a source category’s overall contribution to air pollution, which is not included in the cause-or-contribute findings for any of the other CAA provisions discussed in the Report. And, of course, by its plain language, section 111’s SCF refers not to “the Administrator[’s] . . . regulat[ion] [of an] air pollutant,” but to EPA’s listing of a source category. It is thus abundantly clear that these two sentences from the Conference Report do not, in fact, describe a single, undifferentiated cause-or-contribute finding that applies without variation across the cited CAA provisions. Instead, they describe a *group* of requirements that are generally analogous but vary both in function and specific language.

This section of the Conference Report thus does not support the inference that Congress intended section 111(b)(1)(A) to require a pollutant-specific SCF.

- c. The 1977 House Committee Report does not support the argument that section 111(b)(1)(A) requires a pollutant-specific SCF.

Nor does the House Committee Report for the 1977 Amendments support EPA’s argument that the “[statute’s] drafters understood the SCF provision in CAA section 111(b)(1)(A) to concern the particular air pollutant subject to regulation.”¹⁰⁰ This section of the

⁹⁷ See 42 U.S.C. § 7408(a)(1)(A)-(B) (1977).

⁹⁸ *Id.* § 7412(a)(1) (1977) (emphasis added).

⁹⁹ See 84 Fed. Reg. at 50,264.

¹⁰⁰ 84 Fed. Reg. at 50,265.

report—which describes section 102 of House Bill 6161 (“Basis for Administrative Standards”)—describes that one of the purposes of section 102 is “[t]o provide the same standard of proof for *regulation of any air pollutant, whether that pollutant comes from stationary or mobile sources*, or both, and to make the vehicle and fuel industries equally responsible for cleaning up vehicle exhaust emissions.”¹⁰¹ Yet section 102 made no amendments to section 111(b)(1)(B)—which governs the issuance of standards of stationary sources—but only to section 111(b)(1)(A), which governs source category listings. If Congress had wanted to make clear that the EPA may not issue standards under section 111(b)(1)(B) unless it had made a pollutant-specific SCF, it could easily have achieved that result by amending section 111(b)(1)(B) in addition to section 111(b)(1)(A), but it chose not to do so. “When Congress amends one statutory provision but not another, it is presumed to have acted intentionally.”¹⁰²

Moreover, just like the Conference Report’s reference to a “uniform standard of proof,” the phrase “same standard of proof” as it appears in the House Committee Report was not meant to be—and could not be interpreted to be—exact: the various cause-or-contribute findings that were added or amended in the 1977 Amendments included analogous but not identical language, and, as demonstrated above, each one functions differently depending on the context of the specific provision in which it appears. Congress never meant to bulldoze over any and all variation between the different cause-or-contribute findings amended in section 102 of the 1977 Amendments, and EPA’s selective reading of stray statements from the legislative history does not change the statutory text that Congress actually passed, whether in 1970, 1977, 1990, or any other year.

Finally, the House Committee Report describes the following as the very first purpose of section 102: “To emphasize the preventive or precautionary nature of the act, i.e. to assure that regulatory action can effectively prevent harm before it occurs; to emphasize the predominant value of public health.”¹⁰³ It would be anomalous, to say the least, if Congress included a new (and silent) administrative prerequisite to the agency’s issuance of standards of performance for stationary sources in a section of the 1977 Amendments that was meant to advance the statute’s preventive orientation and to emphasize its “predominant” focus on protecting public health.

- d. The addition of section 111(f)(2) in 1977 does not suggest that a pollutant-specific SCF is required under section 111(b)(1)(A).

EPA next claims that the addition in 1977 of section 111(f)(2) “might also shed light on the meaning of [section 111(b)(1)(A)’s] SCF provision.”¹⁰⁴ Under section 111(f)(2), EPA must consider when “determining priorities for promulgating standards for categories of major stationary sources” both “the quantity of air pollutant emissions which each such category will emit, or will be designed to emit” and “the extent to which each such pollutant may reasonably be anticipated to endanger public health or welfare.”¹⁰⁵ EPA suggests that this provision “could

¹⁰¹ *Id.* (quoting H.R. Rep. No. 94-1175, at 33 (1976) (emphasis added by EPA)).

¹⁰² *Gross v. FBL Fin. Servs., Inc.*, 557 U.S. 167, 174 (2009).

¹⁰³ H.R. Rep. No. 94-1175, at 32–33 (1976).

¹⁰⁴ 84 Fed. Reg. at 50,265.

¹⁰⁵ 42 U.S.C. § 7411(f)(2).

be interpreted to indicate that Congress recognized the EPA's ability to consider, under CAA section 111, the impacts of specific pollutants on public health or welfare."¹⁰⁶ Yet this is an entirely unremarkable observation: no one disputes that EPA should "*consider*" the impacts of specific pollutants both when determining whether to list a source category under section 111(b)(1)(A) and when issuing standards of performance for a listed source category. The question at issue is whether EPA *must* make a second determination that a source category's emissions of a specific pollutant, *by themselves*, cause or contribute "significantly" to air pollution which may reasonably be anticipated to endanger public health or welfare before the agency may lawfully issue standards of performance for the listed source category's emissions of that particular pollutant. Nothing in section 111(f)(2) suggests that this interpretation of the statute is permissible.

First, the entire reason Congress added section 111(f) to the CAA in 1977 was its dissatisfaction with EPA's slow pace in controlling emissions from stationary sources under section 111. As the Conference Report explained, the purpose of this provision was to "provide a check on the Administrator's inaction or failure to control emissions adequately."¹⁰⁷ Accordingly, the 1977 version of section 111(f)(1) required EPA to list all major stationary source categories not already listed within one year and to promulgate standards of performance for those newly-listed sources within three-to-five years.¹⁰⁸ Section 111(f)(2), in turn, provided EPA with the criteria by which to "determine[] priorities for promulgating standards for categories of major stationary sources for the purpose of [section 111(f)(1)]."¹⁰⁹ It is implausible that Congress would have implicitly imposed a prerequisite to regulation in a provision prioritizing standard-setting for the newly listed source categories. One would expect such a prerequisite to appear in the provision actually requiring listing and standard-setting—*i.e.*, section 111(f)(1).

Second, by its own terms, section 111(f)(2) concerns itself solely with how EPA must *prioritize* standard-setting for source categories newly listed under section 111(f)(1), *not* with the scope of the agency's underlying authority to issue such standards under section 111(b). If Congress had meant for section 111(b)(1)(A) to require pollutant-specific SCFs, it could easily have added pollutant-specific language to that provision (or, perhaps more logically, to section 111(b)(1)(B), which requires comprehensive regulation of pollutants from listed source categories) in either its initial 1970 drafting or in the 1977 Amendments, as EPA suggests Congress did in section 111(f)(2)(B). That Congress chose *not* to include such amendments in 1977 when it added section 111(f)(2) makes clear that Congress did not intend a pollutant-specific SCF requirement.¹¹⁰

¹⁰⁶ 84 Fed. Reg. at 50,265.

¹⁰⁷ H.R. Rep. No. 95-564, at 129 (1977).

¹⁰⁸ 42 U.S.C. § 7411(f)(1) (1977). Still dissatisfied with EPA's progress, in 1990, Congress once again amended section 111(f)(1) to require EPA to adhere to a strict schedule in issuing standards for source categories that had been listed under section 111(b)(1)(A) as of November 15, 1990 but not otherwise acted upon. *Id.* § 7411(f)(1) (1990).

¹⁰⁹ *Id.* § 7411(f)(2) (1977).

¹¹⁰ *Gross*, 557 U.S. at 174; *Gonzales*, 520 U.S. at 5.

Lastly, it is not even clear that section 111(f)(2)(B) *does* include pollutant-specific criteria regarding a source category’s contribution to an air pollution problem, even for the purposes of prioritizing standards. The specific language of the statute is as follows:

In determining priorities for promulgating standards for categories of major stationary sources for the purpose of paragraph (1), the Administrator shall consider-

- (A) the quantity of air pollutant emissions which each such category will emit, or will be designed to emit,
- (B) the extent to which each such pollutant may reasonably be anticipated to endanger public health or welfare; and
- (C) the mobility and competitive nature of each such category of sources and the consequent need for nationally applicable new source standards of performance.¹¹¹

In referring to “the quantity of air pollutant emissions which each such category will emit, or will be designed to emit,” subsection (f)(2)(A) clearly points to the source category’s *aggregate* “air pollutant emissions.” This is both because the word “quantity” appears in the singular, implying a single source category-wide sum instead of multiple sums for each individual pollutant, and because EPA can only compare one source category to the next by considering the overall effect of each category’s emissions. Then, in referring to “the extent to which each *such* pollutant may be reasonably anticipated to endanger health and welfare,” subsection (f)(2)(B) necessarily points back to the determination made in subsection (f)(2)(A)—which, as noted, occurs with respect to aggregate emissions. This understanding of section 111(f)(2) makes sense: subsection (f)(2)(A) concerns the *amount* of overall pollution emitted by a source category, while subsection (f)(2)(B) concerns the *danger* posed by that pollution. Both of these factors—along with subsection (f)(2)(C), which looks to a source category’s overall “mobility and competitive nature . . . and [its] consequent need for nationally applicable new source standards of performance”—are clearly relevant considerations for EPA in determining which source categories to develop standards for first and which to consider lower priorities.

Although subsection (f)(2)(B)’s reference to “each such pollutant” in the singular focuses on individual kinds of pollutants, it does not impliedly require an SCF for each pollutant given the context of section 111(f)(2) overall. As noted above, the phrase “such pollutant” necessarily refers back to the phrase “air pollutant emissions” in subsection (f)(2)(A), which logically must mean the source category’s aggregate emissions. To impose a secondary requirement that each pollutant significantly contribute to an air pollution problem could undermine Congress’s aggregate-emissions approach in subsection (f)(2)(A), if no or very few pollutants emitted by a source category could be deemed significant. The more natural understanding of subsection (f)(2)(B)’s phrase “the extent to which each such pollutant may reasonably be anticipated to endanger public health or welfare” is that Congress intended EPA to consider the characteristics of each category’s pollution and its harms.

¹¹¹ 42 U.S.C. § 7411(f)(2)(A)–(C).

For all these reasons, Congress’s addition of section 111(f)(2) to the CAA in 1977 adds no weight whatsoever to EPA’s suggestion that the agency may not issue standards of performance for a source category without a pollutant-specific SCF.

- e. The addition of section 122(a) in 1977 does not indicate that section 111(b)(1)(A) requires pollutant-specific SCFs.

Lastly, EPA suggests that Congress’s addition of section 122(a) to the CAA in 1977 “be interpreted to indicate that Congress expected the EPA to make pollutant-specific determinations under CAA section 111(b).”¹¹² On the contrary, section 122 in no way supports such an interpretation. Under section 122(a), EPA must determine whether emissions of certain specified pollutants—radioactive pollutants, cadmium, arsenic and polycyclic organic matter—will cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health.¹¹³ If the agency makes an affirmative determination for a given pollutant, it must then either list the pollutant under the NAAQS or HAP programs, or “include each category of stationary sources emitting such substance in significant amounts in the list published under section 7411(b)(1)(A) of this title, or take any combination of such actions.”¹¹⁴ The purpose of this provision is to force EPA to take protective action with regard to four classes of dangerous pollutants that, up to that point, it had not regulated; section 111 was one of the options under the provision by which EPA could achieve that end. The fact that Congress authorized EPA to list a source category that emits these pollutants in significant quantities under section 111(b)(1)(A) indicates that Congress intended the agency to follow its usual approach, whereby it lists a source category and then regulates all of its emissions unless doing so would be arbitrary under the statute. The provision clearly did *not* direct EPA to make a significance finding before regulating each of the four pollutants from a listed source category.

I. EPA’s Administrative History Does Not Support a Requirement for a Pollutant-Specific SCF Under Section 111.

Despite the plain language of the statute, the legislative history, and the long history of EPA’s abiding by the statutory language, EPA finds supposed support for a new reading of section 111(b)(1)(A) by referring to a statement included in a 1977 emission guideline for existing phosphate fertilizer plants:

Before [section 111(b)] standards may be established, the Administrator must find that the pollutant in question “may contribute significantly to air pollution which causes or contributes to the endangerment of public health or welfare” [see section 111(b)(1)(A)]. Because this finding is, in effect, a prerequisite to the same pollutant being identified as a designated pollutant under section 111(d), all designated pollutants will have been found to have potential adverse effects on public health, public welfare, or both.¹¹⁵

¹¹² 84 Fed. Reg. at 50,265.

¹¹³ 42 U.S.C. § 7422(a).

¹¹⁴ *Id.*

¹¹⁵ 84 Fed. Reg. at 50,266 (quoting EPA, “Final Guideline Document: Control of Fluoride Emissions from Existing Phosphate Fertilizer Plants,” EPA-450/2-77-005, at 2-1 (Mar. 1977)).

The agency notes that identical language appeared in three subsequent existing source guidelines published in 1977 and 1979.¹¹⁶

These statements cannot support the agency's new theory of section 111(b). First, they contradict the plain language of the statute, as we have discussed extensively in these comments. Second, they appear in the context of section 111(d) rulemakings for existing sources, which do not directly concern the SCF required in section 111(b)(1)(A) or the decision initially to regulate a pollutant from a listed source category through new source performance standards. Indeed, the reason that the drafters of those documents invoked the SCF was to argue that the appropriate determinations had already been made, so no additional finding was necessary in the context of section 111(d).

Third, the drafter of the quoted guideline document appears to have misconstrued key language in the new source performance standard for phosphate fertilizer plants. In that Federal Register notice, EPA explained that it was proposing fluoride standards for phosphate fertilizer plants because those sources were "a major source of fluoride air pollution."¹¹⁷ Yet nowhere in that notice did the agency suggest that this assertion was intended to fulfill its obligation under section 111(b)(1)(A) to make an SCF for the source category or any purported obligation to make an SCF before regulating a pollutant; on the contrary, in the sentence immediately prior, the agency stated that "[a]s prescribed by section 111, proposal of standards within the phosphate fertilizer industry *was preceded* by the Administrator's determination that *these categories* of sources contribute significantly to air pollution which causes or contributes to the endangerment of public health or welfare and by publication of this determination elsewhere in this issue of the Federal Register."¹¹⁸ EPA made clear that it had already made its SCF for phosphate fertilizer plants by this point; its statement about fluoride was intended to explain that the agency's decision to issue fluoride standards for that source category was reasonable under the statute—precisely the same understanding of the statute that EPA has today. In this case and more broadly, what EPA *did* in its 111(b) rulemakings is far more consistent with the law's meaning than what it *said* in a handful of section 111(d) rulemakings.

Finally, it is worth noting that if the statute *did* require a second, pollutant-specific SCF to accompany each section 111 standard of performance, it seems very strange that this has not been done previously in the context of performance standards for methane in the oil and gas industry and carbon dioxide for power plants, PM standards for boilers, NO_x standards for petroleum refineries, and SO₂, NO_x, and CO standards for coal preparation and processing plants, all of which were added in amended rulemakings and thus presumably not covered under the agency's original SCF for the source category (and this list may not be exhaustive). These standards have been in place and providing protections from harmful air pollution for years without the supposedly necessary pollutant-specific SCF. For that matter, even when EPA makes an SCF to list a sector and then immediately promulgates standards for the same pollutants as were considered in that SCF, it does not make any pollutant-specific SCF—further evidence of how strained EPA's argument is.

¹¹⁶ *Id.*

¹¹⁷ 39 Fed. Reg. 37,602, 37,602 (Oct. 22, 1974).

¹¹⁸ *Id.* (emphases added).

III. EPA Must Fully Consider a Source Category’s Contribution to the Relevant Air Pollution Problem Before It May Decide Not To Regulate the Source Category’s Emissions of a Pollutant.

For all the reasons discussed above, no pollutant-specific SCF is required under section 111. Nonetheless, in the remainder of these comments, we respond to EPA’s solicitation regarding “the appropriate criteria for [EPA] to use when determining whether a pollutant emitted from a source category significantly contributes to air pollution which may reasonable be anticipated to endanger in the context of CAA section 111.”¹¹⁹ If a pollutant-specific SCF were required or permissible—and it is not—the inquiry would be limited to the factors that Congress made relevant, *i.e.*, those factors concerning the pollution’s contribution to endangerment. Regardless of whether the agency adheres to the rational basis test or imposes a novel and impermissible significant contribution requirement, the considerations below must inform and thoroughly justify any determination not to regulate a pollutant emitted by a listed source category under section 111.

A. Any Approach EPA Uses To Develop Criteria for Regulating Pollutants Emitted by an Already-Listed Source Category Should Be Consistent with EPA’s Obligations To Protect Public Health and Welfare.

EPA has fundamental obligations to address air quality. “The mission of EPA is to protect human health and the environment.”¹²⁰ As a core part of that mission, EPA administers the CAA, a primary purpose of which is “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.”¹²¹ To effectuate that purpose, Congress tasked EPA in section 111(b)(1) with the non-discretionary duty to consider, list, and regulate categories of pollution sources that cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare.¹²²

In the Proposal, EPA states that it believes that the phrase “contributes significantly” in section 111(b)(1)(A) is “ambiguous” and that the agency has “discretion to identify additional qualitative or quantitative criteria or factors . . . to determine whether a contribution is ‘significant,’ as long as the Agency provides a reasoned basis to justify using such additional criteria or factors.”¹²³

Commenters stress that, as explained extensively above, section 111 requires EPA to consider whether the *source category* “contributes significantly” to aggregate air pollution that endangers in order to list the source category—not, as EPA asserts, “whether a pollutant emitted from a source category significantly contributes to air pollution” that endangers.¹²⁴ “[W]ords of a statute must be read in their context.”¹²⁵ If the agency failed to regulate a pollutant emitted from

¹¹⁹ 84 Fed. Reg. at 50,267.

¹²⁰ EPA, *About EPA*, <https://www.epa.gov/aboutepa/our-mission-and-what-we-do> (last visited Nov. 25, 2019).

¹²¹ 42 U.S.C. § 7401(b)(1).

¹²² *Id.* § 7411(b)(1).

¹²³ 84 Fed. Reg. at 50,268.

¹²⁴ *Id.*

¹²⁵ *Util. Air Regulatory Grp. v. EPA*, 573 U.S. 302, 320 (2014).

a listed category when it first issued standards for the source category, it must do so in a later rulemaking to achieve the purposes of the Act, in accordance with its regulatory obligations, the arbitrary and capricious standard, and upon a fully developed record supporting its conclusion, as described above. Before the agency may decline to regulate a pollutant from a listed source category, it must fully consider how the source category's emissions of the pollutant or pollutants to be regulated contribute to the endangerment of human health or welfare and assure itself that regulating the pollutant would be inconsistent with the statute and arbitrary. Commenters provide the following comments regarding the criteria reasonable to consider when evaluating a source category's emissions before EPA may decide not to regulate a pollutant from a listed source category.

B. EPA Should Follow Its Longstanding Practice and Thoroughly Justify Any Decision Not To Regulate a Pollutant Under Section 111(b)(1)(B) on Case-Specific Facts, Not According to a Uniform or Cross-Cutting Test.

EPA should adhere to its longstanding approach of considering all factors relevant to a source category's contribution and the endangerment posed by a pollutant on a case-by-case basis. For decades, EPA has listed source categories under section 111(b)(1)(A) without identifying a default test for the significance of a source category's contribution. Indeed, the provision contains none. In evaluating a source category's contribution to a particular air pollution problem, EPA has no basis in the statute or its own precedent in listing source categories to superimpose a uniform test for a regulatable level of contribution that would apply across source categories and pollutants.

In fact, EPA's approach to determining significance under other provisions of the CAA that do require such consideration underscores the need for adaptability, or fact-specific inquiry. The agency observes that courts have viewed the terms "contribute" and "significantly" elsewhere in the CAA as affording the agency discretion to identify appropriate criteria in making a significant contribution finding.¹²⁶ It claims similar adaptability in interpreting the phrase "contributes significantly" in section 111(b)(1)(A). Notably, however, even in situations where a "significant contribution" determination is required, EPA has discussed significance criteria for specific pollutants, or for a specific source category; it has not attempted to identify universal indicia of significance. Here, EPA must also resist establishing a uniform, cross-cutting test to determine that regulating a pollutant from a source category listed under section 111 would be arbitrary and inconsistent with the statute but should instead case fact-specific criteria based on the particular air pollution problem at hand. (As we discuss below, however, section 111's language and structure preclude certain considerations from playing a role in this determination, such as cost and feasibility of controls).

Indeed, EPA's administrative precedent in making "significance" findings underscores that no separate "test" is required in order to regulate a new pollutant from an already-listed source category. In these past findings, discussed immediately below, EPA considered all the factors relevant to a source category's contribution and the endangerment posed by the pollutant. Moreover, whatever the agency ultimately decides to call the demanding showing required

¹²⁶ 84 Fed. Reg. at 50,267 & n.81.

before it may decline to regulate a pollutant, the case-by-case, contextualized, and comprehensive approach described in the remainder of these comments should govern.

1. EPA’s Administrative Precedent in Certain Related Contexts Supplies Useful Guidance Toward a Comprehensive Approach to Considering the Source Category’s Contribution to an Air Pollution Problem.

In the Proposal, EPA discusses certain provisions of the Clean Air Act in which it has interpreted language in other CAA provisions that is similar to that in section 111(b)(1)(A). These contexts outline an adaptable—yet thorough—approach that the agency should use to consider a pollutant’s contribution to dangerous air pollution,

EPA notes in the Proposal that, in soliciting comment on this issue, it considered the meaning of the phrase “contributes significantly” in CAA section 189(e).¹²⁷ Again, any EPA decision declining to regulate emissions of a particular pollutant must take into consideration a full analysis of the scale of a source category’s contribution to air pollution (reiterating, once again, that EPA’s default under section 111(b)(1)(B) is to regulate all pollutants emitted by a source category). To the extent that section 189’s standard of “significan[ce]” has any relevance to that determination,¹²⁸ that provision mandates that requirements applicable to sources of particulate matter also apply to sources of precursors to particulate matter, “except where the Administrator determines that such sources do not contribute significantly to [particulate matter] levels which exceed the standard in the area.”¹²⁹ The determination whether a contribution is “significant” is “based on the facts and circumstances of the area,” according to a guidance document EPA issued this year.¹³⁰ That document lays out potentially relevant factors and describes EPA’s approach in evaluating significance:

Air agencies may thus provide the EPA with information related to other factors they believe should be considered in determining whether the contribution of emissions of a particular precursor to levels that exceed the [national ambient air quality standard (NAAQS)] is “significant” or not. Such factors may include: the amount by which a precursor’s impact exceeds the recommended contribution threshold(s); the amount by which the cumulative impact from all modeled precursors exceeds the recommended threshold(s); the severity of nonattainment at relevant monitors and/or grid cell locations in the area; whether an area is measuring clean data and the amount by which the current [design value] is below the NAAQS; the percent of emissions reduction analyzed; source characteristics (e.g., source type, stack height, location); anticipated growth or loss of sources; analyses of speciation data and precursor emission inventories; chemical tracer studies; special intensive measurement studies to evaluate specific atmospheric chemistry in the area; or trends in ambient speciation data and precursor emissions.

¹²⁷ *Id.* at 50,268.

¹²⁸ It is important to note that the use of similar terminology in different sections of the CAA does not automatically imply that those terms must or should be interpreted congruently; rather it is critical to look to the broader context and structure of the terms’ use in interpreting them.

¹²⁹ 42 U.S.C. § 7513a(e).

¹³⁰ 84 Fed. Reg. at 50,268.

We are not recommending one particular approach to evaluating additional factors, and the air agency may provide other information not listed here as well. Any air agency providing additional information should provide a clear rationale explaining how such information supports their claim that the precursor does or does not contribute significantly to [particulate matter] levels that exceed the standard. The EPA will consider such additional information and evaluate each demonstration on a case-by-case basis.¹³¹

Certain of these factors would not be relevant or even lawful to consider when deciding that regulating a pollutant emitted by a source category listed under section 111 would be arbitrary or inconsistent with the statute. For example: there is no target level of pollution under section 111 that would excuse a source category's emissions from regulation solely because overall pollution is approaching that level; further, source characteristics are properly considered when EPA determines the "best system of emission reduction" under section 111(a)(1); and, as discussed below, projections of emission decreases in the future cannot support a decision not to regulate a pollutant from a source category. Nonetheless, the basic approach of considering all information relevant to the quantity of emissions and danger those emissions pose and making a case-by-case determination is correct.¹³² As under section 189(e), EPA must, under section 111, articulate a "clear rationale" that thoroughly assesses a source category's contribution to an air pollution problem before it may decline to regulate the pollutant in question.

In soliciting comment, EPA also discusses a previous significance determination made under CAA section 213 with respect to certain types of air pollution emitted by nonroad engines and vehicles.¹³³ The agency emphasizes that a "specific numerical standard for significance" was not necessary in order to make this finding, but that the agency had instead relied on a "qualitative assessment" "based on criteria [EPA] had identified in the proposed rule."¹³⁴ In this qualitative analysis, no one metric or comparison controlled:

[A]ny reasonable indicator of significance would conclude that emissions from nonroad engines and vehicles were indeed significant contributors. As presented in the [notice of proposed rulemaking (NPRM)] and discussed above, the Agency's photochemical modeling showed that without nonroad sources, the ozone levels of 16 of the 19 analyzed nonattainment areas would decrease from three to eight percent from their current levels and differences in excess of five percent were indicated in eight of the 16 areas. Additionally, [nitrogen oxides (NO_x)] emission levels from nonroad sources were found to be exceeded by only one other source:

¹³¹ EPA, PM_{2.5} Precursor Demonstration Guidance, at 18–19 (May 2019).

¹³² In this regard, EPA's approach under section 189(e) is similar to its approach to determining whether an area "contributes to ambient air quality in a nearby area that does not meet [the NAAQS]." 42 U.S.C. § 7407(d)(1)(A)(i). EPA has explained that it "is not setting a threshold contribution level or 'bright line' test for determining whether a contributing area should be included within the boundaries of a given nonattainment area. Section 107(d) of the CAA does not require the EPA to set a threshold contribution. As was done in prior NAAQS designations, the EPA believes that the contribution determination should be made through a case-by-case evaluation of the relevant facts and circumstances in each nonattainment area." EPA, Area Designations for the 2015 Ozone National Ambient Air Quality Standards, Attachment 3, at 1 (Feb. 25, 2016).

¹³³ 84 Fed. Reg. at 50,268; *see also* 42 U.S.C. § 7547(a)(2).

¹³⁴ 84 Fed. Reg. at 50,268.

the generation of electrical power. Nonroad [volatile organic compound (VOC)] emission levels were found to be exceeded by only two other sources: light-duty highway vehicles and solvent evaporation. Nonroad [carbon monoxide (CO)] emission levels were found to be exceeded by only two other sources: light-duty highway vehicles and residential fuel use. In addition, emissions from nonroad engines and vehicles accounted for over ten percent of the inventory of:

- (1) VOCs in 12 to 14 of the 19 nonattainment areas studied in the nonroad study;
- (2) NO_x in 16 to 19 of the areas studied; and
- (3) CO in six to seven of the areas studied.

As pointed out in the NPRM, in numerous nonattainment areas, other sources are regulated that have lower emissions than the total from nonroad engines in the area. Therefore, it is reasonable to conclude that the higher contributions from nonroad sources in those areas are also significant enough to justify the regulation of NO_x, VOC and CO emissions from nonroad engines and vehicles.¹³⁵

In the above discussion, EPA does not develop significance criteria specific to the source category and the pollutants it is considering; rather, it makes a number of comparisons and concludes that nonroad engines and vehicles would be significant contributors by any measure.

As under section 189(e), the agency's approach to evaluating a source category's contribution to an air pollution problem under section 111 should be adaptable by encompassing all factors relevant to the source category's contribution to dangerous air pollution that it is aware of at the time of its decision. Even with respect to one possible factor—such as a direct comparisons of source categories' emissions or percentages of emissions, as described above with respect to the section 213 finding—EPA should consider multiple comparators and several ways of expressing a source category's contribution. In these ways, EPA's rare decision not to regulate under section 111 should be "consistent with the EPA's approach for similar CAA provisions."¹³⁶ These administrative precedents comport with the purpose of the CAA and section 111 to protect public health and welfare from dangerous air pollution. Before declining to regulate a pollutant emitted by a listed source category, EPA must examine the source category's contributions from a variety of perspectives to ensure that it is reaching a rigorous conclusion as to the magnitude of its contribution. A more cursory, partial approach would disserve statutory purposes and contravene congressional intent in section 111 to provide comprehensive reduction of dangerous air pollution that may not be readily susceptible to preestablished or uniform metrics of harm.¹³⁷

2. Section 111 Precludes Consideration of Certain Factors, Including Cost and Feasibility.

Before EPA may decline to regulate the pollutant in question under section 111, there are at least two factors that the language and structure of CAA section 111 categorically exclude

¹³⁵ 59 Fed. Reg. 31,306, 31,308 (June 17, 1994) (emphasis added).

¹³⁶ 84 Fed. Reg. at 50,268.

¹³⁷ See 40 Fed. Reg. 53,340, 53,341–42.

from this inquiry: the cost of regulation (including cost-effectiveness), and the feasibility of controls. As discussed below, section 111(a)(1) governs when and how EPA is to take these factors into account in regulating under section 111. Accordingly, whatever administrative precedent may exist for accounting for these factors in other statutory contexts, EPA cannot lawfully consider them to support any decision not to regulate a pollutant under section 111.

- a. EPA cannot consider cost or cost-effectiveness to justify a decision not to regulate a pollutant under section 111.

On the issue of cost, EPA notes in its solicitation for comment that in the Cross-State Air Pollution Rule (CSAPR) the agency considered “both cost and air-quality factors to determine what portion of a[n upwind] state’s contribution to an air quality problem, if any, is considered ‘significant’ and, thus should be prohibited under the good neighbor provision [CAA section 110(a)(2)(D)(i)(I), 42 U.S.C. § 7410(a)(2)(D)(i)(I)].”¹³⁸ Consequently, the agency solicits comment on:

whether the consideration of cost-effectiveness in the interstate transport context may suggest that the EPA should or has discretion to consider whether CAA section 111(b) provides a cost-effective basis to assess a source category’s contribution to a particular air-pollution problem as part of the EPA’s determination whether that source category significantly contributes to that air pollution problem.¹³⁹

As an initial matter, it would be unlawful for EPA to limit a hypothetical cost-effectiveness analysis to regulation of new sources under section 111(b). For the reasons advanced below, the agency must consider emissions from both new and existing sources before it may decline to regulate a pollutant; limiting a cost-effectiveness analysis to standards of performance for new sources would be arbitrary and unlawful. In any event, the language and structure of section 111 make plain that EPA cannot consider the cost of performance standards and/or emission guidelines, or the cost-effectiveness of controls, to decide not to regulate a dangerous pollutant emitted by a listed source category.

The plain language of section 111 does not contemplate or allow for consideration of cost to justify a decision not to regulate a pollutant emitted by a source category. Section 111(b)(1)(A) provides for listing of a source category if it “causes, or contributes significantly to, air pollution.”¹⁴⁰ EPA relies on this language to support its newfound pollutant-specific SCF requirement—and, although no such requirement can be read into the statute, section 111(b)(1)(A) does provide important evidence of the factors Congress deemed relevant when regulating a source category’s emissions of a pollutant under section 111. The language, on its face, can only be understood to require a finding about the contribution of a source category to an air pollution problem—which is not an inquiry about cost. EPA cannot relieve itself of the obligation to regulate through reliance on non-statutory factors such as cost.¹⁴¹ Rather, the statute

¹³⁸ 84 Fed. Reg. at 50,268.

¹³⁹ *Id.* at 50,269.

¹⁴⁰ 42 U.S.C. § 7411(b)(1)(A).

¹⁴¹ *Massachusetts*, 549 U.S. at 532-33.

explicitly provides for cost to be taken into account in the decision of *how* to regulate a pollutant from a source category, in the agency’s choice of the best system of emission reduction.

If the text of section 111(b)(1)(A) were not perfectly clear on its face, closer inspection of this subparagraph confirms that cost is not relevant to the “significance” of a source category’s contribution. The phrase “causes, or contributes significantly to . . . air pollution” directs EPA to regulate both 1) source categories that emit all of (*i.e.*, “cause”) the dangerous air pollution, and 2) those that emit some significant fraction of, and thereby partially cause (*i.e.*, “contribute significantly to”), the dangerous air pollution. The agency obviously cannot consider the cost of regulating when determining whether a source category “causes” an air pollution problem because no amount of cost could negate an air pollution problem that a single source category creates, or somehow reduce that source category’s emissions. As the phrase “cause . . . air pollution” refers solely to the act of emitting pollutants, so too does the phrase “contribute significantly to . . . air pollution” refer solely to the act of emitting pollutants, if in some cases to a lesser degree.¹⁴² Given the shared object of these phrases—“air pollution”—it would be unreasonable to conclude that cost (or any other factor EPA might deem relevant, whether in the statute or not) comes into play.¹⁴³

Moreover, Congress spoke plainly as to when and how cost should be considered in the context of section 111. As discussed above, for all pollutants emitted by a listed source category, EPA ordinarily must identify the “best system of emission reduction,” taking cost into account, under section 111(a)(1).¹⁴⁴ As part of this analysis, EPA must also weigh the quantity of emissions that various systems would reduce.¹⁴⁵ Yet cost and emission reductions are not simply balanced in selecting the best system of emission reduction; rather, EPA must control pollution “to the greatest degree practicable”¹⁴⁶ so long as the system it identifies is not “exorbitantly costly.”¹⁴⁷ Because the level of emission reductions is a key variable in EPA’s evaluation of

¹⁴² Accepting as true that cost of controls cannot alter a causal relationship between a source category and an air pollution problem, another provision of the CAA also indicates that Congress did not intend cost to influence an SCF. Section 213(a)(4) authorizes EPA to issue standards for “emissions from those classes or categories of new nonroad engines and new nonroad vehicles . . . which in [EPA’s] judgment cause, or contribute to” an air pollution problem. 42 U.S.C. § 7547(a)(4). Yet EPA must first determine that emissions of a pollutant from all new nonroad engines or vehicles “significantly contribute to air pollution which may reasonably be anticipated to endanger public health or welfare.” *Id.* It would be illogical to read this provision to allow EPA to consider cost of control in assessing emissions from all new nonroad engines and vehicles—possibly preventing regulation of a subset of such sources that entirely “cause” the air pollution problem. It is apparent from section 213(a)(4) that Congress, with the terms “cause” or “significantly contribute,” typically refers to quantities of emissions; the “contribute significantly” determination for the full set of sources cannot implicate a factor that would be irrelevant to the subsidiary “cause” determination for a subset of those sources. By close analogy, both “cause” and “contribute significantly” in section 111(b)(1)(A) should be understood to refer exclusively to quantities of emissions.

¹⁴³ CAA provisions that call for a simple “cause or contribute” finding even more starkly illustrate how cost is irrelevant to a source category’s contribution to pollution. *See, e.g.*, 42 U.S.C. § 7422(a); *id.* § 7521(a)(1). In those provisions, any amount of air pollution suffices as the regulatory trigger; cost cannot plausibly be read into the unqualified term “contribute” used in close conjunction with “cause.” Although the term “significantly” in section 111(b)(1)(A) may require a somewhat higher quantitative contribution, it would be unreasonable to find in that provision a cost component that is absent from other “cause or contribute” findings.

¹⁴⁴ 42 U.S.C. § 7411(a)(1).

¹⁴⁵ *Costle*, 657 F.2d at 326.

¹⁴⁶ *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 434 n.14 (D.C. Cir. 1973).

¹⁴⁷ *Id.* at 433.

systems, an analysis that relies solely or primarily on cost-effectiveness could lead EPA to select a system that is marginally more cost-effective yet far less effective at reducing pollution than the “best” system taking into account (and giving the proper weight to) all the relevant statutory factors. Thus, the statute does not provide any basis for relying solely or primarily on the cost-effectiveness of controls when determining an emission limitation achievable through the best system of emission reduction.¹⁴⁸ Given this statutory language and structure, it would contravene congressional intent—and defy logic—for EPA to decline to initiate the regulatory process delineated in section 111 based on factors (cost and cost-effectiveness) that Congress has instructed EPA to consider at a later stage of rulemaking in a multifactor analysis.¹⁴⁹

The practical consequences of this cart-before-the-horse approach show why it is not viable. The section 111 case law has made clear that the quantity of emission reductions achievable is the leading consideration in identifying the best system of emission reduction, and costs are appropriate unless “exorbitant.”¹⁵⁰ Furthermore, section 111(a)(1) requires EPA to weigh costs together with other factors such as ancillary environmental, health, and energy impacts when selecting the best system of emission reduction.¹⁵¹ Were EPA, at the threshold stage, to consider costs in a vacuum or only in comparison to emissions or potential emission reductions, it would short-circuit section 111(a)(1)’s prescribed comprehensive balancing of statutory factors. Moreover, even if EPA sought to perform a preliminary balancing of the factors at the threshold stage (contrary to the statute’s instruction), the agency would not yet have the necessary information on cost, energy requirements, environmental effects, etc. that the statute requires be taken into account. As a result, emissions that should be maximally reduced through a balancing of the factors in section 111(a)(1) could go entirely unregulated because EPA has ignored certain factors entirely or has prematurely weighed them without sufficient information in determining that a source category’s contribution to a given pollution problem is so small as not to warrant regulation.

Considering cost or cost-effectiveness in evaluating a source category’s contribution to an air pollution problem is not only contrary to the language and structure of the statute; it is also unworkable and arbitrary, for the reasons that follow. First, to the extent that the word “significantly” implies a comparison of a source category’s emissions to those from other source categories, reading cost or cost-effectiveness into section 111(b)(1)(A) (or any consideration

¹⁴⁸ In fact, cost-effectiveness is only a rational decision-making framework in the context of an overall pollution reduction requirement or some other, separate consideration of the overall pollution reductions that must be or can be achieved. Once the amount of pollution that must be reduced has already been identified, such as under an ambient air quality standard, then the cost-effectiveness of different reduction options can be compared and more cost-effective options preferred. Analogously, under section 111, if two different systems of emission reduction achieved similar levels of pollution abatement, cost-effectiveness could be a useful factor to consider in differentiating them. But cost-effectiveness—\$/amount reduced—does not allow for a meaningful comparison between different control options that achieve different overall levels of emission reductions. In this sense, it does not speak to the total quantity of pollution that must be reduced or could be reduced, which are critical and mandatory inquiries under the CAA.

¹⁴⁹ In contrast, Congress has directed EPA to consider the feasible emission *reductions* in selecting the best system—a statutory factor that, when applied, would not be redundant with or obviate EPA’s consideration of a source category’s overall *contribution* to an air pollution problem.

¹⁵⁰ *E.g., Lignite Energy Council v. EPA*, 198 F.3d 930, 933 (D.C. Cir. 1999) (“EPA’s choice will be sustained unless the environmental or economic costs of using the technology are exorbitant.”).

¹⁵¹ 42 U.S.C. § 7411(a)(1).

purportedly derived from it) would seemingly entail a comparison of the relative costs or cost-effectiveness of controls of various source categories, in different industries. Such an endeavor would raise many questions about how costs are to be compared: should control costs be evaluated relative to the industry's profits, income, or production costs (among other possible points of reference) and then compared across sectors? Each of these evaluations would yield dramatically different results and lead to unequal treatment of different industries with the same emissions. For example, the power sector generates substantial revenues and can frequently recover costs through rate increases, which might render it less financially vulnerable to regulation than other sources of the same pollutant. At any rate, even if it were possible to compare regulatory outcomes for multiple source categories in a single rulemaking, the D.C. Circuit has indicated that, under section 111, EPA cannot justify its regulations by comparing costs across industries.¹⁵²

Aside from legal and policy difficulties, it would be technically difficult to consider cost or cost-effectiveness in making any decision not to regulate a pollutant. Section 111 requires EPA to consider cost and emission reductions when selecting the best system of emission reduction, at which point the agency will have gathered information about potential systems and therefore be much better equipped to evaluate these factors. Considering the cost of regulation before EPA evaluates potential systems of emission reduction would be inefficient and lead to inaccurate results. Assuming EPA could approximate the costs and emission reductions available from various systems at the earliest stages of its rulemaking, the estimate would vary widely even for a single system depending on the "best" level of control, which EPA has yet to determine. Furthermore, if costs were relevant to an SCF under section 111(b)(1)(A), EPA would essentially have to conduct its analysis of the best system of emission reduction for both new *and existing* sources before even listing a source category.¹⁵³ All of these complications could be avoided if EPA simply follows the procedure Congress has prescribed and considers cost not during its evaluation of a source category's contribution in deciding whether it would be unreasonable to regulate the pollutant in question, but rather at the specified regulatory stage.

Nor, as EPA suggests, would administrative precedent in other statutory contexts justify departing from the scheme laid out in section 111. Even if it were possible to override specific statutory requirements by analogy to unrelated provisions or rulemakings, other CAA programs typically do not contemplate consideration of costs in making a threshold determination whether to regulate.

For example, as EPA itself acknowledges, it is permitted to consider costs in the CSAPR rulemaking when "apportioning emission reduction responsibility" among the states by requiring the use of controls at the same level of cost-effectiveness across states,¹⁵⁴ *not* when deciding

¹⁵² See *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 389 (D.C. Cir. 1973) ("Inter-industry comparisons of this kind are not generally required, or even productive; and they were not contemplated by Congress in this Act. The essential question is whether the mandated standards can be met by a particular industry for which they are set, and this can typically be decided on the basis of information concerning that industry alone.").

¹⁵³ This analysis could be guesswork without the information EPA has gained from regulating new sources in developing an emission guideline for existing sources. See 40 Fed. Reg. 53,340, 53,343 (Nov. 17, 1975).

¹⁵⁴ 84 Fed. Reg. at 50,268.

whether a state should be included in the program in the first instance.¹⁵⁵ Under the good neighbor provision, CAA section 110(a)(2)(D)(i)(I), the threshold determination of whether to regulate a state’s emissions under the program is governed by whether or not it contributes to non-attainment of the NAAQS in another state,¹⁵⁶ which EPA must determine without regard to cost.¹⁵⁷ Thus, reading cost-effectiveness into section 111(b)(1)(A) would be tantamount to inserting an entirely new provision in section 110 that allows states and EPA to ignore interstate air pollution if they decide there is no cost-effective solution—an atextual reading that is obviously contrary to the CAA.

A comparison to the provisions of section 112 is also instructive. Although EPA ignores the contrast, section 111 does not include the broad language that appears in section 112(n) regarding the “appropriate[ness]” of regulation at the threshold stage.¹⁵⁸ The phrase “appropriate and necessary” in section 112(n) differs starkly from “contributes significantly” in section 111: “appropriate” indicates a value judgment regarding the reasonableness of regulation, which the Supreme Court has found should include an evaluation of regulatory costs.¹⁵⁹ “[C]ontributes significantly[] to air pollution” is a very different phrase with a very different meaning, and indicates only an assessment of the seriousness of a contribution to a pollution problem; it simply does not admit consideration of the costs needed to address that pollution problem. For the agency to read “significant” and “appropriate” as both requiring attention to cost—and ignore the words in the statute that surround the two terms—would disregard Congress’s choice to use words with dramatically different meanings, in dramatically different ways, in describing the initial finding to be made in the regulatory process.

The more apt comparison to section 112 would be with source categories other than power plants. For these sources, under both sections 111 and 112, Congress has instructed that all source categories or types of sources that emit above a certain level of pollution must be regulated. Under section 112, that level is numerical and expressed in the statute;¹⁶⁰ under section 111, that level is one of “significance,” which EPA determines on a case-by-case basis with respect to each source category.¹⁶¹ When determining if a source category meets that level, section 112 allows no room to consider cost apart from the special provisions of section 112(n) for power plants.¹⁶² Section 111 has no provision analogous to 112(n) delineating a special

¹⁵⁵ Moreover, while prioritizing the lowest cost emission reductions “is an efficient and equitable solution to the allocation problem” that section 110(a)(2)(D)(i)(I) requires EPA to address, *EPA v. EME Homer City Gen., L.P.*, 572 U.S. 489, 519 (2014), courts have not held that such an approach is *required* in a regional transport FIP. Nor have they ever held such prioritization to be an appropriate consideration in evaluating petitions under section 126(b).

¹⁵⁶ *Id.* at 500–01.

¹⁵⁷ *Whitman v. Am. Trucking Ass’n*, 531 U.S. 457, 467–68 (2001).

¹⁵⁸ 42 U.S.C. § 7412(n)(1)(A) (“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.”).

¹⁵⁹ See *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015).

¹⁶⁰ See 42 U.S.C. § 7412(a)(1), (d)(1).

¹⁶¹ See *id.* § 7411(b)(1)(A).

¹⁶² Compare *id.* § 7412(d)(1) (requiring regulations for “each category . . . of major sources”), with *id.* § 7412(n)(1)(A) (“The Administrator shall regulate electric utility steam generating units under this section, if the Administrator finds such regulation is appropriate and necessary”).

approach for a particular industry—but it is otherwise similar to 112 in that section 111 provides no authority to consider costs when making an SCF under section 111(b)(1)(A) or evaluating a source category’s contribution to an air pollution problem in making the rare determination that it would be arbitrary to regulate a pollutant that it emits.

- b. EPA cannot consider feasibility or availability of controls to justify a decision not to regulate a pollutant under section 111.

EPA also asks whether, in making a pollutant-specific SCF, it should “evaluate the efficacy of regulation for new and/or existing sources?”¹⁶³ For many of the same reasons that EPA cannot consider cost at the threshold stage, it cannot consider feasibility or availability of controls to decide not to regulate a pollutant emitted by a listed source category.

Section 111(a)(1) already addresses the feasibility and availability of controls: EPA may only select a best system of emission reduction that is “adequately demonstrated” and results in an emission limitation that is “achievable.”¹⁶⁴ If EPA could decline to regulate emissions from a source category because it believes—at preliminary stage of rulemaking—that no systems of emission reduction are available or feasible to use, it would cut short the analysis of the full universe of potential systems according to the factors in section 111(a)(1). More importantly, declining to regulate emissions from a source category based on perceived difficulty in reducing them would leave dangerous sources of air pollution subject to no legal limits at all. Such sources should be a focus of attention, not ignored—especially as EPA’s selection of the “best system of emission reduction” must aim to improve pollution-reduction techniques.¹⁶⁵

Even if there truly are no technically feasible options to reduce a source category’s emissions of a particular pollutant below the level associated with normal operations, there is no reason that the agency cannot issue standards that reflect the use of the cleanest facility design that is currently available and in use. Thus, feasibility or availability of pollution controls cannot be a basis for EPA to avoid issuing standards altogether for a particular pollutant.

As with cost, the lack of any role for availability or feasibility of controls under section 111 becomes more apparent through comparison with section 112(n). At the first stage of the regulatory process, section 111 requires listing a source category based on its contribution to dangerous air pollution.¹⁶⁶ It provides no basis to decline to list a source category based on consideration of the nature of subsequent standards of performance. In contrast, EPA *did* properly consider efficacy of pollution controls in making the “appropriate and necessary” finding for hazardous air pollutants emitted by power plants under section 112(n),¹⁶⁷ because “appropriate and necessary” is a different inquiry from “contributes significantly” in section 111(b)(1)(A). The question of whether regulation is “appropriate” invites investigation of broader considerations, which could include the efficacy of controls. In the context of section

¹⁶³ 84 Fed. Reg. at 50,269.

¹⁶⁴ 42 U.S.C. § 7411(a)(1).

¹⁶⁵ *Sierra Club v. Costle*, 657 F.2d at 346 (“Our interpretation of section 111(a) is that the mandated balancing of cost, energy, and nonair quality health and environmental factors embraces consideration of technological innovation as part of that balance.”).

¹⁶⁶ 42 U.S.C. § 7411(b)(1)(A).

¹⁶⁷ See *White Stallion Energy Ctr., LLC v. EPA*, 748 F.3d 1222, 1231 (D.C. Cir. 2014).

111, Congress does not pose this question: EPA must address serious quantities of emissions of harmful air pollutants, regardless of the design of its subsequent standards or emission guidelines. There is simply no provision analogous to section 112(n) in section 111 that would permit the agency to evaluate the feasibility or availability of controls to justify not regulating a listed source category's emissions of a pollutant under section 111.¹⁶⁸

C. EPA Must Consider Both New and Existing Sources in Considering a Source Category's Contribution to Air Pollution.

EPA queries whether it “should . . . evaluate the significant contribution of new sources potentially subject to regulation under CAA section 111(b) as well as existing sources potentially subject to subsequent regulation under CAA section 111(d).”¹⁶⁹ Not only should the agency do this, it must: section 111 unambiguously requires EPA to consider pollution from both new and existing sources before it may decline to regulate a pollutant emitted by a listed source category.

Section 111(b)(1)(A) requires listing by “categories of stationary sources.”¹⁷⁰ And again, it is this provision on which EPA would apparently rely if it decided to impose a pollutant-specific SCF, and the provision does indicate congressional intent in enacting section 111. The language provides no basis for EPA to limit its evaluation only to new stationary sources or only to existing stationary sources. The CAA also defines “new source” and “existing source” by reference to each other, and the definitions make clear that the universe of stationary sources in a category is the *aggregate* of all new and existing sources.¹⁷¹

The statutory context further confirms this straightforward reading. In other parts of section 111, Congress does distinguish between new and existing sources within a category of stationary sources. A prime example is section 111(b)(1)(B), which provides that, within a year of listing, EPA “shall publish proposed regulations, establishing Federal standards of performance for *new sources within such category*.”¹⁷² This provision confirms that new sources are a subset *within* the category of sources whose pollution EPA previously assessed when determining whether to list the category. Likewise, section 111(d) provides for regulating the subset of existing sources within the listed category. These provisions confirm that a “category of sources” under section 111(b)(1)(A) encompasses new *and* existing sources, both of which

¹⁶⁸ In the past, EPA has occasionally declined to regulate a pollutant emitted by a source category because effective controls were not adequately demonstrated, relying in those instances on the directive in section 111(b)(1)(B) to revise performance standards “if appropriate,” 42 U.S.C. § 7411(b)(1)(B)—but has never done so in the context of a significance finding. In any event, for the reasons discussed in this paragraph, we do not believe EPA was correct to consider the availability or feasibility of controls in those decisions, nor do we believe the agency may consider those factors to justify not regulating a pollutant from a given source category either concurrently upon listing the category or subsequently. Furthermore, no court has ever endorsed that approach. *See Nat’l Lime Ass’n v. EPA*, 627 F.2d 416, 426 n.27 (D.C. Cir. 1980) (noting EPA’s decision not to regulate certain pollutants from lime plants but not deciding the issue).

¹⁶⁹ 84 Fed. Reg. at 50,269.

¹⁷⁰ 42 U.S.C. § 7411(b)(1)(A).

¹⁷¹ *Id.* § 7411(a)(2); *id.* § 7411(a)(6) (“The term ‘existing source’ means any stationary source other than a new source.”).

¹⁷² *Id.* § 7411(b)(1)(B); *cf. Russello v. United States*, 464 U.S. 16, 23 (1983) (“[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.”).

EPA must consider when evaluating the contribution of the source category to dangerous air pollution.

In the Proposal, EPA also asks: “for a source category in which new sources are not expected in the future, should the Administrator independently evaluate significant contribution from existing sources?”¹⁷³ Again, EPA *must* do this. The CAA requires EPA to consider emissions from all sources—new and existing—in a category. To the extent that the best available data projects no new sources, EPA’s evaluation will be driven by existing sources. But it is the emissions of the source *category* that are regulated based on its contribution to dangerous air pollution, whether that contribution is driven primarily by new sources, existing sources, or both.

If EPA were to only consider regulating pollutants from source categories with significant numbers of expected new sources, it could leave dangerous air pollution unaddressed. If existing sources contribute significantly to dangerous air pollution, but no new sources are expected, considering only the lack of expected new sources would allow the danger from existing sources to persist indefinitely. For example, it is unlikely that many, if any, new coal-fired power plants will come online going forward¹⁷⁴—but it would be irrational, and unlawful, not to regulate existing coal-fired power plants on that basis. Under section 111, issuing new source standards of performance under section 111(b) is a legal predicate for issuing existing source emission guidelines for that category under section 111(d). Thus, issuing standards under section 111(b) results in pollution limits for both new *and* existing sources.¹⁷⁵ Declining to regulate a pollutant based only on emissions expected from new sources would make the regulation of emissions from existing sources inexplicably incidental, and indeed would likely prevent regulation of emissions from existing sources. Congress enacted—and repeatedly reaffirmed in various forms—section 111(d), evincing a sustained concern with pollution from existing sources. Against this statutory backdrop, it would be untenable to exclude existing sources’ pollution in attempting to justify a decision not to regulate a pollutant emitted by a source category.

In addition to the plain language of the statute requiring category-wide consideration, evaluating the pollution contribution across the entire source category is the only rational option. Real-world air quality and health and welfare risks depend primarily on the level of pollution, not its provenance specifically from a new or existing source. If, for example, existing sources and potential new sources within a category were to pollute at a level just below that deemed “significant,” considering them in isolation could lead EPA to find the overall source category’s emissions “insignificant” or not warranting regulation despite the category’s actually contributing an aggregate level of pollution well above a level that would warrant regulation. Or, if EPA chose to evaluate the emissions of only one or the other subset of sources (new or existing), it could choose the ‘wrong’ subset and fail to regulate a source category’s emissions

¹⁷³ 84 Fed. Reg. at 50,269.

¹⁷⁴ See EPA, “Review of Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units,” 83 Fed. Reg. 65,424, 65,436 n.56 (Dec. 20, 2018) (“Power sector modeling does not predict the construction of any new coal-fired EGUs.”).

¹⁷⁵ See *Am. Elec. Power Co.*, 564 U.S. at 424 (“Once EPA lists a category, the Agency must establish standards of performance for emission of pollutants from new or modified sources within that category. And . . . § 7411(d) then requires regulation of existing sources within the same category.” (citations omitted)).

even though one of the subsets, by itself, significantly contributes to an air pollution problem or contributes a pollutant in a way that would warrant regulation. This approach could thus mask significant contributions to dangerous air pollution, and would directly undermine the clear intent of section 111. EPA provides no explanation in the Proposal for why Congress would have intended such an inexplicable result. Indeed, as the Proposal acknowledges, EPA has long recognized that section 111(b) compels agency to evaluate the source category as a whole, rather than piecemeal.¹⁷⁶ The Proposal also acknowledges that the D.C. Circuit has long upheld this industry-wide evaluation,¹⁷⁷ and any alternative approach would be arbitrary.

In short, the CAA, confirmed by decades of interpretation and practice, plainly requires that EPA consider the contribution of all sources in a source category—new and existing alike—when evaluating the contribution of that category for listing and regulating pollutants under section 111. Finally, we note that EPA has previously solicited comment on many of these same issues in other recent regulatory proposals,¹⁷⁸ and received voluminous and detailed submissions in response.¹⁷⁹

D. EPA Cannot Establish a Single Percentage Threshold in Evaluating All Source Categories' Contributions to Various Air Pollution Problems.

Apparently not content to set universal criteria for evaluating a source category's contribution to an air pollution problem that find no support in the statute or its past approach to listing source categories, EPA suggests an even more constrained test:

Is there a simple percentage criterion that holds across pollutants and source categories (*i.e.*, a source category responsible for X percent of any pollutant is deemed to “significantly contribute” to the air pollution caused by that pollutant), or would it depend on, for example, the number of source categories that emit that pollutant (and the relative emissions from the source category whose emissions are the subject of the SCF determination in question, as compared to emissions from those other source categories); the nature of the pollutant; and/or the nature of the air pollution to which that pollutant may contribute (*i.e.*, should the EPA address the question whether emissions of criteria and other traditional air pollutants, which cause air pollution primarily due to direct exposure, ambient regional concentration, and/or intermediate-range transport, “significantly contribute” to air pollution in a different manner than it should address the question whether emissions of GHG “significantly contribute” to climate change)?¹⁸⁰

¹⁷⁶ Proposal, 84 Fed. Reg. at 50,269 n.85; *see also* EPA, “Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units,” 79 Fed. Reg. 1,430, 1,455 n.107 (Jan. 8, 2014) (“CAA section 111(b)(1)(A) is clear by its terms that the source category listing that is the prerequisite to regulation is based on the contribution of the “category” to air pollution, and therefore is not based on the contribution of only new sources in the category.”).

¹⁷⁷ 84 Fed. Reg. at 50,269 n.85; *see, e.g., Nat'l Asphalt Pavement Ass'n v. Train*, 539 F.2d 775, 779–82 (D.C. Cir. 1976).

¹⁷⁸ *See, e.g.,* 83 Fed. Reg. at 65,432 n.25.

¹⁷⁹ *See, e.g.,* Joint Comments of Environmental and Public Health Organizations, Doc. No. EPA-HQ-OAR-2013-0495-12590 (Mar. 18, 2019).

¹⁸⁰ 84 Fed. Reg. at 50,269.

In evaluating the scale of a source category’s contribution to an air pollution problem, EPA should take a comprehensive approach, which considers the various sources of a pollutant, the nature of the pollutant, and the nature of the air pollution problem. A “simple percentage criterion” that applies to all source categories and all pollutants would be unlawful under section 111 and arbitrary for the reasons discussed below.

1. A Single Percentage Threshold Would Not Comport with the Language and Purpose of CAA Section 111.

A single percentage threshold that applies across source categories and pollutants is inconsistent with CAA section 111(b)(1)(A)—which, again, EPA relies upon to invent the possibility of a requirement for a pollutant-specific SCF.¹⁸¹ As noted, that provision does not set forth any criteria for evaluating a source category’s contribution to an air pollution problem. Nor does it indicate that EPA could properly define criteria that are uniformly applicable across all source categories and pollutants; and EPA has not done so in the past. To read into that provision authority to select a *single percentage threshold* below which it could evade regulation, without any attention to the facts at hand, stretches the language of section 111(b)(1)(A) and the rulemaking exercise far beyond the point of reasonableness. Indeed, with section 111, Congress sought to regulate pollutants that might vary widely in their distribution and impacts, and that might differ in important ways from the pollutants regulated as hazardous or criteria pollutants.¹⁸² To pick a single numerical cutoff below which EPA could stop protecting the public health and welfare, without considering the source category’s contribution to the corresponding air pollution problem, would be contrary to this statutory scheme.

The directive to EPA in section 111 is to ensure that source categories that contribute to dangerous air pollution are subject to an emission limitation that reflects the best system of emission reduction available—not to come up with “simple” rules that fail to effectuate the agency’s mandate under this provision. Whether a source category’s contribution to a pollution problem is so minimal as not to warrant regulation of the pollutant in question is a complex question that cannot be answered with a single, universal threshold number divorced from the kinds of pollutants emitted by the source category and pollution problem at hand.

2. A Single Percentage Threshold Would Lead to Arbitrary Rulemaking Under CAA Section 111.

A single percentage threshold that applies across source categories and pollutants would lead to arbitrary rulemaking under section 111. A uniform threshold that is insensitive to the nature of the pollution problem ignores the overriding statutory directive to address endangerment to human health or welfare.¹⁸³ Without contextualized analysis, it is impossible for EPA to ensure that it is fulfilling this mandate. On the one hand, the threshold may be too low: a

¹⁸¹ Congress clearly knew how to set specific numerical thresholds for regulation, which the Supreme Court has enforced even where it might have made more sense for EPA to have some flexibility in applying those thresholds. *Util. Air Regulatory Grp. v. EPA*, 573 U.S. 302, 325 (2014). Congress did not take that rigid approach in section 111(b)(1)(A).

¹⁸² 40 Fed. Reg. 53,340, 53,341–42 (Nov. 17, 1975).

¹⁸³ 42 U.S.C. § 7411(b)(1)(A).

finding that requires reductions of emissions when there is no longer a pollution problem would be arbitrary and inconsistent with the statute. On the other hand, the threshold may be too high: a finding that allows EPA to decline to regulate large sources of a pollutant that continues to endanger public health and welfare would be contrary to the statute. Pre-defining the level of such a threshold would likely prove intractable because of differences in the array of contributors to any given air pollution problem and in the nature of the problem itself, discussed below.

- a. The composition of contributors to an air pollution problem depends on the nature of the problem, and it will change over time.

The bizarreness of the hypothetical single threshold approach is made particularly clear when comparing different pollutants. Some pollution problems would require a threshold that is too low for other problems, and vice versa. Emissions of GHGs, for instance, are widely distributed across source categories,¹⁸⁴ necessitating a low threshold to address the problem effectively. Yet this threshold could sweep in far more source categories than need to be regulated to address other air pollution problems where a few contributors account for the vast majority of emissions. Conversely, setting the threshold based on the latter set of problems could mean that EPA would regulate far too *few* source categories that contribute to a pollution problem, such as GHG-driven climate change, with more widely distributed sources.

Moreover, even for a single pollution problem, source categories' relative contributions will change over time. It would be unreasonable to conclude that a source category that emitted at a constant level did not contribute to a problem sufficiently to warrant regulation at one time but, following emission reductions from other source categories, suddenly contributes sufficiently without further analysis of the remaining problem. Conversely, it would be just as unreasonable—and contravene statutory purposes to reduce overall air pollution—to conclude that a source category previously contributed to an air pollution problem sufficiently to warrant regulation but no longer does because other source categories' emissions have increased, thereby changing the relative percentage contributions of different sectors, or because novel source categories are now contributing to the problem. This outcome could occur even where the regulated source category's emissions actually *increased* over time, but other categories' emissions increased more. A "simple percentage criterion"¹⁸⁵ is not reasonable given that contributions to a pollution problem shift, and that a source category could move above and below the threshold. The resulting fluctuations would be unmoored from the reality of the pollution problem and the ongoing statutory directive for EPA to address air pollution, and would create considerable regulatory uncertainty.

¹⁸⁴ See 74 Fed. Reg. 66,496, 66,538 (Dec. 15, 2009) ("The total emissions of greenhouse gases worldwide are from numerous sources and countries, with each country and each source category contributing a relatively small percentage of the total emissions.").

¹⁸⁵ 84 Fed. Reg. at 50,269.

- b. The nature of the air pollution problem may necessitate a lower threshold.

Regardless of the various and variable assortments of contributors to air pollution problems, a single percentage threshold that applies across pollutants would not necessarily satisfy statutory purposes to address dangerous air pollution, because of the different effects of pollutants. If EPA were to attempt to define a uniform percentage threshold across pollutants below which it would not regulate, it would quickly encounter difficulties in selecting one value that is sufficiently protective against all types of harms yet does not regulate insignificant sources. Different pollutants have different impacts. For example, hazardous air pollutants, which can be regulated under section 111(b), frequently cause severe health problems even when emitted at low levels.¹⁸⁶ Some source categories may contribute only a small percentage of overall emissions of a hazardous air pollutant, but those emissions could well inflict serious harms on nearby communities. Even where a pollutant does not cause damage in a locality that can be tied specifically to emissions in the same locality, the scale and urgency of the overall problem may necessitate immediate emission reductions from lower-emitting source categories, as with climate change. Thus, both hazardous air pollutants and GHGs illustrate why EPA must consider the nature of the air pollution problem before determining whether a source category's contribution is so low as not to warrant regulation: a very low threshold would be needed to address the problems these pollutants create, one that would likely encompass too many source categories when regulating less severe air pollution problems.

Ultimately, EPA has not offered any reason why a single threshold is needed or even useful, rendering this approach irrational and unlawful. The general requirement to avoid arbitrary and capricious rulemaking under the CAA¹⁸⁷ precludes regulations that address *de minimis* contributors to an air pollution problem, obviating the value in a single numerical threshold that would entail all of the problems noted above.

E. EPA Must Evaluate a Source Category's Emissions of a Pollutant as They Relate to Contribution to Dangerous Air Pollution in a Manner Suited to the Nature of the Particular Pollution Problem at Hand, as Demonstrated in the Case of GHG-Driven Climate Change.

As discussed above, section 111(b)(1)(A) requires EPA to list a category of sources if the category "contributes significantly" to "air pollution" that endangers "public health or welfare."¹⁸⁸ Section 111 does not assign EPA a merely procedural listing task, but directs the agency to identify real-world contributors to dangerous air pollution problems and then to regulate emissions from those source categories. Again, stretching section 111(b)(1)(A) beyond

¹⁸⁶ See 42 U.S.C. § 7412(a)(1) (defining "major source[s]" subject to regulation for hazardous air pollutants under CAA section 112 as "any stationary source . . . 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"); *id.* § 7412(b)(2) (requiring EPA to list as hazardous air pollutants, where appropriate, those that present adverse human health effects "including, but not limited to, substances which are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, neurotoxic, which cause reproductive dysfunction, or which are acutely or chronically toxic").

¹⁸⁷ *Id.* § 7607(d)(9)(A).

¹⁸⁸ *Id.* § 7411(b)(1)(A).

its limited purpose in listing source categories, EPA states in the Proposal that it “is not asking for comment on the factors the Agency should consider in determining whether air pollution may reasonably be anticipated to endanger public health or welfare, but rather the factors that should be considered when determining whether a pollutant from a source category significantly contributes to that air pollution.”¹⁸⁹ Ostensibly to that end, the agency seeks comment on “what information [it] should consider when quantifying the emissions” from a source category; EPA then queries what “total universe of emissions” the source category emissions “should be compared [to],” and whether EPA should determine “a threshold for significant contribution under CAA section 111(b)(1)(A).”¹⁹⁰ These queries imply that the import of a contribution must turn solely on a quantitative comparison of source category emissions to some other aggregated universe of emissions. The CAA does not compel such a cramped approach, and as discussed above, in light of the range of different types of air pollution problems, it would be arbitrary for EPA to adopt any mechanical, across-the-board comparison.

EPA should instead evaluate the contribution of a source category to dangerous air pollution in a manner rationally fitted to the nature of that particular pollution problem. To be sure, section 111(b)(1)(A) listing requires discrete “endangerment” and “significant contribution” findings. But, although a source category’s contribution and the danger posed by the air pollution problem must be considered in making any decision not to regulate a pollutant emitted by the listed source category, the statute does not require that EPA make those evaluations in a vacuum or suggest that they are wholly unrelated. Indeed, it would be irrational to attempt to determine whether a source category’s contribution is so small as not to warrant regulation without an understanding of the of the particular pollution problem at hand.

For example, a dangerous air pollution problem may be caused predominantly by (i) local emissions from sources within a small geographic area; (ii) the transport and aggregation of emitted pollutants from sources within a regional airshed; (iii) the accumulation in the atmosphere over time of longer-lived pollutants from sources across the globe; or (iv) some combination of local, regional, or global emissions. Pollution problems vary in other dimensions as well. Among other things, the danger of some types of pollution changes significantly at various threshold air concentrations, whereas the danger from other types of pollution increases more incrementally with increasing air concentration; some pollution problems are caused predominantly by emissions from a small number of the same type of sources, whereas others are caused predominantly by emissions from large number of diverse sources; and some pollution problems are driven predominantly by the current rate of emissions, whereas other pollution problems are the result of the accumulation of persistent pollutants from emissions over an extended period of time. No single test can rationally be used to evaluate every air pollution problem across the spectrum, nor to determine source categories’ contributions to various problems.

GHG-driven climate change is a prime example of a pollution problem that is unique in many regards. As such, EPA’s evaluation of a source category’s contribution to this problem may necessitate very different considerations in comparison to its evaluations of other pollution problems. As EPA acknowledged a decade ago:

¹⁸⁹ 84 Fed. Reg. at 50,267.

¹⁹⁰ *Id.* at 50,269.

[N]o single greenhouse gas source category dominates on the global scale, and many (if not all) individual greenhouse gas source categories could appear small in comparison to the total, when, in fact, they could be very important contributors in terms of both absolute emissions or in comparison to other source categories, globally or within the United States. If the United States and the rest of the world are to combat the risks associated with global climate change, contributors must do their part even if their contributions to the global problem, measured in terms of percentage, are smaller than typically encountered when tackling solely regional or local environmental issues. The [opposite] approach, if used globally, would effectively lead to a tragedy of the commons, whereby no country or source category would be accountable for contributing to the global problem of climate change, and nobody would take action as the problem persists and worsens.¹⁹¹

The best available data shows that total GHG emissions from all sources must be steeply reduced in the near term to avoid more harmful global average temperature increases, and that overall GHG emissions cannot exceed a net zero balance by mid-century at the latest if we are to avoid the most devastating effects of climate change.¹⁹² As discussed below, there is clear scientific evidence that limiting average temperature increases requires limiting the total cumulative amount of GHGs emitted into the atmosphere—*i.e.*, staying within a total carbon budget.¹⁹³ Although there may be many possible means of limiting total cumulative GHG emissions, doing nothing is not one of them.

EPA determined in 2009 that GHG pollution endangers the public health and welfare, and the evidence supporting that determination has only grown.¹⁹⁴ That danger cannot be addressed, and a rational carbon budget cannot be achieved, without EPA’s limiting GHG emissions from major industrial source categories such as the one that is the subject of this rulemaking: the oil and gas sector. It would be irrational for EPA to determine that a source category’s emissions need not be regulated, where those emissions must be reduced under any plausible scenario of actions that limits atmospheric GHG accumulation below catastrophic levels. And certainly EPA cannot conclude that the ordinary course of regulating these emissions would be arbitrary or inconsistent with the statute, as it would be required to show if it sought not to regulate them.

¹⁹¹ EPA, “Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act,” 74 Fed. Reg. 66,496, 66,543 (Dec. 15, 2009).

¹⁹² IPCC [Intergovernmental Panel on Climate Change], Special Report: Global Warming of 1.5°C (SR 1.5), Summary for Policymakers at 12 (Oct. 2018, rev. Jan. 2019), <http://www.ipcc.ch/report/sr15/>.

¹⁹³ *Id.*

¹⁹⁴ Duffy, Philip B. et al., Strengthened Scientific Support for the Endangerment Finding for Atmospheric Greenhouse Gases, 363 Science doi: 10.1126/science.aat5982 (2018) at 1. *See also* Joint Comments of Environmental and Public Health Organizations on Climate Science and Climate Change As They Pertain to EPA’s Proposed Review of Standards of Performance for Greenhouse Gas Emissions From New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units, No. EPA-HQ-OAR-2013-0495-12606 (Mar. 18, 2019).

1. It Would Be Irrational To Decline To Regulate a Source Category's Emissions of GHGs Where That Category's Emissions Must Be Reduced To Stave Off Catastrophic Climate Change.

“In the absence of more significant global mitigation efforts, climate change is projected to impose substantial damages on the U.S. economy, human health, and the environment.”¹⁹⁵ The extent of global average temperature increases and attendant climate change is a function of the cumulative amount of GHGs emitted into the atmosphere.¹⁹⁶ Limiting global temperature increase therefore requires limiting the total cumulative amount of GHGs emitted into the atmosphere.¹⁹⁷ This concept is usefully described in terms of a budget: *i.e.*, any given temperature threshold is associated with a finite budget of cumulative emissions.

Ongoing emissions reduce the remaining space in the budget, and any emissions in excess of budgeted space further compound the danger of their climate-forcing effects. Emissions of both long-lived (*e.g.*, carbon dioxide) and shorter-lived (*e.g.*, methane) GHGs affect the available budget space and peak temperature increases.¹⁹⁸ Stabilizing the global temperature at *any* level requires that net emission rates decrease to zero.¹⁹⁹ Stabilizing global temperature at a level that avoids catastrophic harm requires steep reductions in net global emissions relative to present-day values well before 2040, “and likely would require net emissions to become zero or possibly negative later in the century.”²⁰⁰

The best available science shows that current emissions, if allowed to continue, will exhaust any rational budget in only two decades.²⁰¹ As discussed comprehensively in the recent Fourth National Climate Assessment, climate change is already causing major harm to public health and welfare,²⁰² and unmitigated future emissions will cause substantially, and perhaps catastrophically, greater harm. The extent to which additional harm can be avoided depends on the magnitude and timing of emissions reductions, with early and deep reductions yielding a greater chance of avoiding the worst outcomes of climate change.²⁰³ Further, any such effort requires action across numerous types of emission sources. There is no silver bullet: to stabilize

¹⁹⁵ Martinich, J., B.J. DeAngelo, D. Diaz, B. Ekwurzel, G. Franco, C. Frisch, J. McFarland, and B. O’Neill, 2018: Reducing Risks Through Emissions Mitigation. In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, p. 1357. doi: 10.7930/NCA4.2018.CH29 (NCA4, Vol. II).

¹⁹⁶ *See, e.g., id.*, ch. 2, pp. 82-83 (“Accounting for emissions of carbon as well as other greenhouse gases and particles that remain in the atmosphere from weeks to centuries, cumulative human-caused carbon emissions since the beginning of the industrial era would likely need to stay below about 800 GtC in order to provide a two-thirds likelihood of preventing 3.6°F (2°C) of warming, implying that approximately only 230 GtC more could be emitted globally in order to meet that target.”).

¹⁹⁷ IPCC, SR 1.5, Summary at 12.

¹⁹⁸ *Id.* ch. 2, p. 96 (“Non-CO2 emissions contribute to peak warming and thus affect the remaining carbon budget. The evolution of methane and sulphur dioxide emissions strongly influences the chances of limiting warming to 1.5°C.”).

¹⁹⁹ NCA4, Vol. II, ch. 2, p. 83.

²⁰⁰ *Id.*

²⁰¹ *Id.*

²⁰² NCA4, Vol. II, ch. 29, p. 1357.

²⁰³ *Id.*, p. 1348.

the climate, we must both limit total atmospheric accumulation of GHGs and slow and rapidly reduce to zero the rate of accumulation.

In particular, making immediate emission reductions from large sources—such as the U.S. oil and gas industry—is necessary to provide more time to address smaller emission sources, and to enable implementation of adaptation and resilience measures for harms that are already inescapable. In short, the available emissions budget is *already* oversubscribed and will be exhausted without broad reductions in future emissions. The multiplicity of emission sources requires reductions across a broad array of sources—starting with the largest ones—to have any chance at achieving the level of decarbonization necessary to stabilize global average temperatures at a level consistent with protecting public health and welfare.²⁰⁴

EPA must account for these aspects of GHG air pollution before it may decide not to regulate a source category’s emissions of GHGs under Section 111. It would be irrational, for example, to determine that a source category’s emissions do not warrant regulation under section 111 where that category’s emissions *must* be reduced under any plausible scenario to avoid exceeding a rational GHG budget. Otherwise, EPA would knowingly allow dangerous air pollution to persist, with increasingly adverse effects on public health and welfare—a result directly at odds with the purpose, language, and structure of section 111. Any plausible mitigation scenario that avoids extreme harm to public health and welfare requires deep reductions in emissions from the biggest sources of GHG emissions, including the domestic oil and gas sector.²⁰⁵ For EPA to determine that such categories do *not* contribute sufficiently to climate-destabilizing GHG pollution to warrant regulation of their GHG emissions would plainly be arbitrary, capricious, irrational, and unlawful.

Finally, given the increasingly dire nature of GHG-driven climate change, it is doubly irrational for EPA to *delay* acting on such source categories. Early reductions are crucial to avoiding increasingly adverse effects of climate change—especially so where those reductions involve fast-acting climate pollutants like methane from the oil and gas sector.²⁰⁶ The nature of this crisis demands that EPA act promptly to regulate emissions from major GHG source categories. In the face of catastrophic climate change, any other course of action is irrational.

2. In Evaluating a Source Category’s Contribution, EPA Should Consider Any and All Information Relevant to the Entire Source Category’s Current and Future Contribution to Endangerment, Taking a Precautionary Approach.

Given the nature of GHG air pollution, EPA cannot rationally decline to regulate a pollutant emitted by a source category without considering how such a decision will affect the remaining global, and corresponding national, budget for cumulative emissions. On the other hand, the agency may regulate emissions from a source category based on any number of considerations. For example, with regard to methane emissions from the oil and gas industry,

²⁰⁴ NCA4, Vol. II, ch. 29, p. 83 (“At current emission rates, unless there is a very rapid decarbonization of the world’s energy systems over the next few decades, stabilization at [either a 1.5° C or 2.0° C] target would [not] be remotely possible.”).

²⁰⁵ Cf. IPCC, SR1.5, ch. 2, pp. 93-174.

²⁰⁶ NCA4, Vol. II, ch. 29, p. 1348.

EPA rationally concluded in the 2016 rule that such emissions were “significant” under section 111(b)(1)(A), even as it affirmed that the statute requires only a one-time SCF to list the source-category (which EPA originally completed in 1979 for this sector), not a pollutant-by-pollutant approach.²⁰⁷ The agency made this finding on the basis of the sector’s absolute methane emissions, its emissions relative to domestic and global comparators, and its status as one of the most prevalent contributors of both methane and overall GHGs in the country. A more thorough discussion of this finding appears in a separate comment submitted to this docket joined by the undersigned organizations.

Despite the propriety of this finding, the agency asks in the Proposal whether it should revise the 2016 rule’s “significance” determination and make various comparisons between methane emissions from the U.S. oil and gas industry and other emission figures.²⁰⁸ In general, where it is necessary to make such comparisons, EPA should make all relevant comparisons needed to assure itself that the source category’s emissions do not cause or contribute to dangerous air pollution. This will generally require, at a minimum, multiple comparisons; the most relevant will be those that depend on the context of the particular source category and the particular nature of the air pollution problem. EPA must list the source category if it is a significant contributor in any relevant context, and must proceed to regulate its emissions comprehensively unless doing so would be arbitrary and inconsistent with the statute.

EPA cannot, however, *decline* to address a source category’s emissions based solely on these types of comparisons. As discussed above, pure quantitative comparisons and fixed-percentage thresholds may mask substantial contributions and it would be arbitrary to rely on such mechanical, across-the-board evaluations. Particularly for GHG pollution, where harms are closely linked to accumulation, a pure quantitative comparison is an irrational way to decline to regulate a source category’s GHG emissions. And, more broadly, where source category emissions persist in the atmosphere, considering only a snapshot level of emissions or relative quantity of emissions can obscure the scale of the source category’s contribution to the problem: an apparently “low” quantity of emissions can be highly problematic where pollutants accumulate faster than removal rates or operate with greater force depending on the timescale.

EPA also specifically queries how “natural emissions” should be considered in quantitative comparisons.²⁰⁹ In addition to the general comparisons across anthropogenic contributors discussed above, EPA should recognize that “natural” emissions of GHG pollutants are increasingly driven by anthropogenic causes. The Proposal describes, for example, “natural” emissions of methane from sources such as permafrost and biomass burning.²¹⁰ However, the release of methane from permafrost is significantly increased by anthropogenic climate

²⁰⁷ See, e.g., EPA, “Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources,” 81 Fed. Reg. 35,824, 35,837-35,840 (June 3, 2016).

²⁰⁸ See 84 Fed. Reg. at 50,269 (“If the source category emits primarily a single gas (e.g., methane), should the emissions from that source category be compared against methane emissions (see Table 7, column 3 of this preamble) or against all GHG emissions (see Table 7, column 4 of this preamble)? How should natural emissions be considered in this comparison (see VI.C.3.a.i of this preamble)? Should the comparison be to domestic emissions (see Table 7 of this preamble) or to global emissions (see Table 8 of this preamble)? Or should multiple comparisons be made, as in VI.C.3 of this preamble?”).

²⁰⁹ *Id.*

²¹⁰ 84 Fed. Reg. at 50,269-50,270.

change.²¹¹ Likewise, “natural” biomass burning, such as wildfire, is significantly exacerbated by anthropogenic climate change.²¹² Much current and future permafrost and wildfire release is only rationally attributable to anthropogenic emissions—describing current and future permafrost and wildfire emission levels as “natural” obscures this fact. The anthropogenically-driven increases in “natural” source emissions provide *more* reason to address anthropogenic sources. It would be irrational for EPA to use such increases as a consideration to conclude that a source category’s contributions to a particular pollution problem are so minimal that it would not be reasonable to regulate them under section 111.

Stepping back, under any approach to deciding not to regulate a pollutant, which includes consideration of a source category’s contribution to an air pollution problem but does not involve a “significance” determination, EPA should rely on the best data available. EPA asks, for example: “To what extent should the [finding] rely primarily on the most recent emission inventories, and to what extent should historical trends and future projections inform the Administrator’s finding?”²¹³ As a general matter, in identifying the best data available, EPA should take into consideration: (i) any relevant available data bearing on the extent of a source category’s emissions; and (ii) any relevant available data bearing on the effect on public health or welfare of the air pollution to which those emissions contribute. Thus, to the extent the most recent emission inventories reflect the best available data, EPA should consider them.

As to “historical trends and future projections,” the agency should account for uncertainty in current data and projections on a health-protective basis. As discussed below, EPA should consider projected or possible increases in source category emissions. EPA should generally not, however, rely on hypothetical future *decreases* to ignore source categories that currently contribute to dangerous air pollution. This is particularly true for air pollution problems, like increased atmospheric GHG concentrations, where pollutants persist and accumulate over longer periods of time. If a source category is substantially contributing to a pollution problem *now*, section 111 requires that its emissions be regulated, despite the possibility that emissions may decrease at some future date. The statutory language and framework provide no basis for a “wait-and-see” approach that would allow such source categories to go unlisted or unregulated when their emissions, by any reasonable standard, must be reduced to address an air pollution problem.

Further, emission reduction projects and future market dynamics carry inherent uncertainty. EPA does not have authority to refuse to protect public health and welfare based on uncertain projections. If EPA declines to regulate a source category’s contribution to dangerous air pollution in error, it affects public health or welfare in contravention of the basic purpose of section 111. For example, despite minor decreases in energy-related carbon dioxide emissions in

²¹¹ See, e.g., NCA4, Vol. II, ch. 2, pp. 91-92 (“As surface temperatures increase, permafrost—previously permanently frozen ground—is thawing and becoming more discontinuous. This triggers another self-reinforcing cycle, the permafrost-carbon feedback, where carbon previously stored in solid form is released from the ground as carbon dioxide and methane (a greenhouse gas 35 times more powerful than CO₂, on a mass basis, over a 100-year time horizon), resulting in additional warming.”).

²¹² See, e.g., IPCC, SR1.5, ch. 3, p. 282 (“The 0.5°C rise in global temperatures that we have experienced in the past 50 years has contributed to shifts in the distribution of plant and animal species, decreases in crop yields and more frequent wildfires. Similar changes can be expected with further rises in global temperature.”).

²¹³ 84 Fed. Reg. at 50,269.

2017, those emissions rebounded in 2018.²¹⁴ As another example, many coal-fired power plants have far outlived their projected useful lives.²¹⁵ If a source category is currently contributing to a dangerous air pollution problem, EPA is obligated regulate its emissions under section 111.

Section 111 does, however, direct EPA to consider projections of *increases* in source category emissions in listing evaluations. Section 111 directs EPA to consider “anticipated” danger to public health and welfare.²¹⁶ Thus, if EPA anticipates that source category growth will lead to a dangerous air pollution problem, it must act to head off that danger. Nothing in the CAA authorizes EPA to disregard emissions from source categories that would reasonably need to be reduced to mitigate an air pollution problem, using conservative projections as to the source category’s emissions. Given regulatory lead-time, waiting until a source category has already grown into serious contributor toward a dangerous air pollution problem places public health and welfare at risk during the pendency of the rulemaking. If growing source category emissions will hasten the manifestation of an anticipated danger or will exacerbate an existing danger, it is irrational for EPA to decline to regulate a listed source category’s emissions.

Indeed, because EPA must consider both new and existing sources together in deciding whether or not to regulate a pollutant emitted by a source category under section 111, as discussed above, such determinations inherently contemplate some consideration of projected increases in the source category. By definition, at the date of a listing, there are no “new” sources then in existence: new sources are those constructed or modified *after* promulgation of new source performance standards (which cannot legally pre-date a listing).²¹⁷ Accordingly, EPA will need to look at projected growth of new source emissions as part of any contribution evaluation under section 111, and it is only logical that EPA must also consider projected increases in emissions from the sector as a whole if it seeks to avoid regulating a given pollutant. At bottom, real-world substantive health and welfare impacts are the proper focus for EPA under section 111. If there is a current risk to public health or welfare, EPA must address it. If a borderline source category is expected to grow or become more dangerous, EPA must regulate its emissions with an eye toward preventing the “anticipated” danger.

F. EPA Cannot Parse a Source Category’s Emissions So As To Avoid Making a Pollutant-Specific Determination.

In making a pollutant-specific determination, EPA cannot trivialize a source category’s contribution to an air pollution problem by segmenting its emissions into (A) sub-pollutants, (B) different types of harms, or (C) precursors of other pollutants—and ignoring or discounting some of those emissions. The Clean Air Act should not be treated like a parlor trick with Dixie cups.

²¹⁴ See, e.g., U.S. Energy Information Administration, *U.S. energy-related CO2 emissions increased in 2018 but will likely fall in 2019 and 2020* (Jan. 28, 2019), <https://www.eia.gov/todayinenergy/detail.php?id=38133>.

²¹⁵ See, e.g., U.S. Energy Information Administration, *Most coal plants in the United States were built before 1990* (Apr. 17, 2017), <https://www.eia.gov/todayinenergy/detail.php?id=30812>.

²¹⁶ 42 U.S.C. § 7411(b)(1)(A).

²¹⁷ *Id.* § 7411(a)(2) (“The term ‘new source’ means any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source.”).

1. EPA Cannot Decline to Regulate a Source Category’s Emissions of a Pollutant by Limiting Its Consideration of the Source Category’s Contribution to an Air Pollution Problem to Sub-Pollutants.

In the context of the 2016 NSPS for the oil and gas sector, EPA asks whether it should “consider only methane emissions or also account for CO₂ emissions and any other GHG that may be emitted from the source category?”²¹⁸ The agency appears to be inquiring whether, in general, it would be appropriate to consider only one component of an aggregate pollutant when evaluating the amount of the pollutant that the source category emits. It would not.

EPA, before it may decline to regulate a pollutant emitted by a source category, must consider all the ways a source category may cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, since the mandate of the Act is to mitigate endangerment. That inquiry must take account of all of the emissions of the pollutant or set of pollutants that underlie the air pollution problem. In the case of GHGs, EPA has determined “that six greenhouse gases taken in combination endanger both the public health and the public welfare of current and future generations.”²¹⁹ Thus, to the extent a source category emits GHGs, EPA must consider any and all of the six component pollutants in any evaluation of the contribution of the source category to the endangerment that they pose.²²⁰

The mandate to consider all component pollutants before EPA may decline to regulate a source category’s emissions is reflected in the regulatory process itself. Once a source category is listed, EPA must promulgate protective standards.²²¹ Those standards must reflect “the degree of emission limitation achievable through the application of the best system of emission reduction.”²²² If there is an “adequately demonstrated” system²²³ that reduces GHGs and is better than any alternative system, EPA should set standards reflecting it. For example, in addition to significant amounts of methane, the oil and gas source category emits significant quantities of carbon dioxide, another component GHG, particularly from flaring during production and acid gas removal during processing.²²⁴ In setting standards of performance, EPA should consider adequately demonstrated systems that may reduce carbon dioxide emissions as well as those that would reduce methane emissions—including those that might do so in combination. If EPA were to exclude carbon dioxide from its threshold determination and treat that partial determination as the prerequisite to regulating any sub-pollutant, it might (wrongly) claim that it could disregard an opportunity to reduce carbon dioxide emissions by selecting a system of reduction that

²¹⁸ 84 Fed. Reg. at 50,269.

²¹⁹ 74 Fed. Reg. 66496 (Dec. 15, 2009).

²²⁰ It may be expedient to focus on a predominant component GHG where it is apparent that emissions of the component GHG alone warrant listing the source category. Once EPA has sufficient information to determine that a source category “causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare,” 42 U.S.C. § 7411(b)(1)(A), it should list the source category and propose new source performance standards for GHG, *id.* § 7411(b)(1)(B). There is no reasonable justification for delaying listing a source category to determine how much *more* significant the source category is after accounting for all additional component GHGs. The same would be true for a pollutant-specific SCF.

²²¹ 42 U.S.C. § 7411(b)(1)(B).

²²² *Id.* § 7411(a)(1).

²²³ *Id.*

²²⁴ *See* 81 Fed. Reg. at 35,839.

exclusively targets methane. Instead, as the statute requires, the threshold determination should be made considering emissions of all GHGs together, and the best system of emission reduction—possibly composed of multiple mechanisms—should encompass opportunities to reduce both methane and carbon dioxide.

2. Before It May Decline to Regulate a Pollutant, EPA Must Consider the Total Contribution of a Source Category's Emissions to Dangerous Air Pollution.

The agency suggests that it would be appropriate to distinguish among a source category's contributions to different air pollution problems in evaluating the scale of the source category's emissions of a pollutant. Specifically, it asks: "What considerations are relevant for pollutants that contribute to multiple different kinds of pollution (methane as both a GHG and an ozone precursor, CO₂ as both a GHG and a contributor to ocean acidification, NO_x as a precursor to both PM_{2.5} and ozone)?"²²⁵ It is unclear whether EPA is seeking input on how best to account for the various harms caused by a pollutant, or whether it is suggesting that it might decide not to regulate the source category's emissions of a pollutant because they contribute to separate air pollution problems. The latter approach would be unlawful, arbitrary, and contrary to basic common sense.

As noted above, EPA's directive under the statute is to mitigate dangerous air pollution—and it goes without saying that combinations of air pollution problems are even more detrimental to public health and welfare than a single pathway of harm. Ignoring the multiple effects of a single pollutant would be inconsistent with the listing decision required in section 111(b)(1)(A). This provision directs EPA to list a source category based on its combined contributions to air pollution problems, possibly through emissions of numerous air pollutants. Prior to issuing standards for a listed source category's emissions of a given pollutant, EPA must consider the contribution to dangerous air pollution of a specific pollutant emitted by a source category. In doing so, it would be unreasonable for EPA to segregate the different air pollution problems that result from the source category's emissions of that pollutant when the source category's original listing must involve not only the manifold harms of each pollutant, but also the harms caused by all air pollutants combined.

The statute calls for a more comprehensive approach: EPA should consider contributions of the source category to all air pollution problems 1) additively, 2) longitudinally, and 3) synergistically. First, as noted above, EPA cannot fail to regulate a pollutant simply because some portions of emissions from a source category contribute to one pollution problem, some portions to others. Second, EPA must consider the possibility that a pollutant will contribute to several pollution problems at different times (*e.g.*, methane and carbon dioxide can become ozone in the atmosphere and acidic compounds in the ocean, respectively, after remaining in the atmosphere for some time and capturing radiation). Third, EPA must consider the synergistic effects of a pollutant (*e.g.*, the contributions of methane, carbon dioxide, and other GHGs to global warming and, consequently, exacerbated ozone pollution from higher temperatures). Disregarding any of these aspects of a source category's contribution to an air pollution problem

²²⁵ 84 Fed. Reg. at 50,269.

would be arbitrary and unlawful because all of these aspects are critical to the endangerment of public health and welfare, which is the entire thrust of the Act and section 111 specifically.

EPA's query also insinuates that some types of harm might not be relevant, or might be less relevant, to a pollutant-specific determination. EPA must examine the extent to which the air pollutant contributes to *any* air pollution problem that may endanger human health and welfare until it can assure itself that the source category's emissions do not contribute, taken as a whole, to endangerment of any and all sorts.²²⁶ If the source category's emissions separately contribute to any pollution problem that may endanger human health or welfare, it is essential for EPA to consider the full scale of the contribution before it may decline to regulate the pollutant in question.

Finally, the definition of "air pollutant" in section 302(g) does not authorize EPA to ignore harms that occur when a pollutant transforms into another air pollutant, as EPA suggests.²²⁷ Section 302(g) provides, in relevant part, that the term "air pollutant" "includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term 'air pollutant' is used."²²⁸ EPA appears to imply that it might not be able to consider the harms caused by emissions of precursors without first making an identification of the precursor in a section 111 rulemaking. This implication is wrong.

The term "air pollutant" does not appear in section 111(b)(1)(A).²²⁹ Therefore, in the context of evaluating a source category's contribution to an air pollution problem through its emissions of a particular pollutant, it is not necessary to make an identification of a pollutant as a precursor "for the particular purpose for which the term 'air pollutant' is used."²³⁰ Furthermore, all emissions regulated under section 111 already qualify as "air pollutants" as defined in the first sentence of section 302(g): "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive... substance or matter which is emitted into or otherwise enters the ambient air."²³¹ Thus, there is no need for identification of a pollutant as a precursor in order to render it an air pollutant to which a standard of performance could apply.²³² It would be arbitrary for EPA to exclude a pollutant from its evaluation of a source category's contribution to dangerous air pollution if that pollutant could be regulated in its current form under section 111 regardless of whether it is a precursor of another pollutant. And, for any

²²⁶ See *Am. Elec. Power Co.*, 564 U.S. at 416, 426-27 (noting that EPA had made an endangerment finding for GHGs under CAA section 202, and admonishing that "EPA may not decline to regulate carbon-dioxide emissions from powerplants if refusal to act would be arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law" (internal quotation marks omitted)).

²²⁷ 84 Fed. Reg. at 50,269.

²²⁸ 42 U.S.C. § 7602(g).

²²⁹ *Id.* § 7411(b)(1)(A).

²³⁰ *Id.* § 7602(g).

²³¹ See *id.* § 7602(g); see also *Massachusetts*, 549 U.S. at 529 ("On its face, the definition [of 'air pollutant'] embraces all airborne compounds of whatever stripe . . . [M]ethane . . . [is] without a doubt [a] physical and chemical substance[] which [is] emitted into the ambient air.").

²³² 42 U.S.C. § 7411(a)(1).

pollutant that could be regulated under section 111, EPA must take into account all the harms it threatens—including in its current form and when it creates a subsequent pollutant.

3. EPA Cannot Disregard or Discount Emissions of Pollutants That Are Excluded from Regulation Under Section 111(d) To Support a Decision Not to Regulate a Source Category’s Emissions of the Pollutant.

In deciding whether or not to regulate a pollutant, EPA should give full weight to the impacts inflicted by a criteria or hazardous air pollutant (or its precursors), whether emitted from existing sources or projected new sources. EPA notes that methane is a precursor to ozone and asks: “If EPA is precluded from regulating existing sources of a pollutant under CAA section 111(d), should that factor be evaluated in a SCF?”²³³ The text and structure of section 111 render any such factor irrelevant to a pollutant-specific determination, and in any event, EPA is required to regulate methane emissions under section 111(d).

Under the plain language of section 111, EPA must set standards of performance for new sources that could cover any pollutant at all, including criteria and hazardous air pollutants.²³⁴ Although section 111(d) bars EPA from covering criteria and hazardous air pollutants in existing source emission guidelines,²³⁵ that provision indicates that Congress knew how to exclude certain types of pollution from regulatory decisionmaking under section 111. The fact that section 111(b)(1)(A) does not similarly contain prohibitive cross-references to other CAA provisions makes clear two things: first, the agency is not limited under section 111(b) as to the kinds of pollutants for which it may issue standards of performance; and second, as a result, EPA may not exclude any pollutant subject to regulation under the CAA, and the air pollution problems that they cause, in deciding not to regulate a pollutant. And, as noted elsewhere in these comments, EPA must take into account emissions from the source category as a whole before it may decline to regulate a pollutant under section 111.

This reading of the statute is reasonable—and, indeed, the only logical interpretation—even though EPA regulates criteria or hazardous air pollutants emitted by existing sources under other parts of the Act. If existing sources remain a large contributor to an air pollution problem caused by criteria or hazardous air pollutants even after EPA and/or states take action under sections 110 and 112 to reduce those emissions, it is crucial that *new* sources in the same source category be controlled to the maximum extent feasible, as required by section 111.²³⁶ If EPA or states have been unable to resolve the air pollution problem through other statutory mechanisms, it is even more imperative that EPA exercise the technology-forcing authority granted to it in

²³³ 84 Fed. Reg. at 50,269.

²³⁴ See 42 U.S.C. § 7411(b)(1)(B) (requiring EPA to “establish[] Federal standards of performance for new sources”); *id.* § 7411(a)(1) (defining “standard of performance” as a “standard for emissions of air pollutants”); *id.* § 7602(g) (defining “air pollutant” as “any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term ‘air pollutant’ is used”).

²³⁵ *Id.* § 7411(d)(1)(A).

²³⁶ *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 434 n.14 (D.C. Cir. 1973).

section 111²³⁷ to ensure that new sources deploy state-of-the-art controls.²³⁸ Then, as existing sources phase out, significant emissions from the source category should decline.²³⁹ Accordingly, EPA must consider emissions of all pollutants—including emissions of criteria and hazardous air pollutants and their precursors from both existing and projected new sources—before it may decline to regulate a pollutant under section 111.

IV. Conclusion

For the reasons described above, EPA must adhere to its longstanding position that section 111 does not require a pollutant-specific SCF before regulating a listed source category's emissions. Any contrary conclusion would violate the plain language of the Clean Air Act. Even if section 111 were ambiguous on this point—and it is not—an interpretation of the statute that would impose a requirement of a pollutant-specific SCF would be unreasonable. Rather, once a source category is listed under section 111, EPA must regulate its emissions of all pollutants unless doing so would be arbitrary under the statute. In making this determination, EPA must conduct a comprehensive evaluation of the source category's contribution to dangerous air pollution—taking into account the nature of the pollutant, the air pollution problem, and the statutory directive to mitigate it—and make a clear showing that regulating the pollutant as emitted by that source category would be inconsistent with the statute by any measure. Finally, commenters reiterate that the present solicitation of comment does not provide adequate notice of any change in EPA's position on these issues, and therefore EPA cannot lawfully alter its approach, in any respect, in the final rule.

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²³⁷ *Sierra Club v. Costle*, 657 F.2d at 346 (“Our interpretation of section 111(a) is that the mandated balancing of cost, energy, and nonair quality health and environmental factors embraces consideration of technological innovation as part of that balance.”).

²³⁸ EPA may have a justification for issuing new source performance standards (NSPS) for a pollutant even where the associated air pollution problem is largely resolved. For example, if all areas were in attainment for a certain NAAQS, EPA could nonetheless further the statutory goal of preventing significant deterioration in those areas by setting a NSPS “floor” for the best available control technology that new or modified sources must deploy. *See* 42 U.S.C. § 7479(3).

²³⁹ This scheme, whereby older sources retire and are replaced by sources with modern pollution controls (or are upgraded and have to install the controls themselves) is consonant with other CAA programs, such as the Prevention of Significant Deterioration (PSD) program. *See Ala. Power Co. v. Costle*, 636 F.2d 323, 400 (D.C. Cir. 1979) (“The statutory scheme intends to ‘grandfather’ existing industries; but the provisions concerning modifications indicate that this is not to constitute a perpetual immunity from all standards under the PSD program. If these plants increase pollution, they will generally need a permit.”).