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Disempowering the EPA: How Statutory Interpretation of the Clean Air Act Serves the Trump Administration's Deregulatory Agenda

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DISEMPowering THE EPA: HOW
STATUTORY INTERPRETATION OF THE
CLEAN AIR ACT SERVES THE TRUMP
ADMINISTRATION’S DEREGULATORY
AGENDA

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INTRODUCTION

As the Environmental Protection Agency (EPA) and the Clean Air Act (CAA) reach their respective fiftieth anniversaries, President Donald Trump’s administration is bending the historic trajectory of both the Agency and the Act.¹ For most of its existence, the EPA’s path has been “progressive” in that the statutes the EPA implements, including the CAA, obligate the Agency to advance its regulations as

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1. *Clean Air Act Requirements and History*, EPA, <https://www.epa.gov/clean-air-act-overview/clean-air-act-requirements-and-history> [<https://perma.cc/JN8E-5LR5>] (last updated Jan. 10, 2017).

science and technology progress.² The EPA's rule-making under the CAA must integrate advances in our understanding of the effects of air pollution on the environment and on public health, as well as new methods to curb pollution.

Provisions of the CAA ensure a continual and comprehensive response to the threats posed by air pollution.³ These include the EPA's obligation to periodically update pollution-control-technology standards and to review the National Ambient Air Quality Standards (NAAQS) so that the standards reflect the latest science. The CAA specifies many of these mandates explicitly.⁴ Where the Act is vague in whether and how it applies to emerging understandings of air-quality challenges, the EPA has read the language to be capacious enough to require or authorize the Agency to take the actions needed to solve these new problems.⁵ To do so, the EPA evaluates new science to find CAA-based solutions to meet the Act's emission-reduction goals. The EPA has also generally understood the CAA as granting the Agency the authority to allow compliance flexibility for regulated sources while still meeting the required emissions reductions.⁶ The courts have mostly ratified the EPA's interpretive approach.⁷ This bolsters the Agency's understanding that the CAA contains the necessary tools for it to achieve continually improve air quality.

The Trump EPA is working to change the Agency's progressive trajectory through a series of rule rollbacks based on interpretations of the CAA that narrow the Agency's legal authority. The EPA is no

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2. See William Boyd, *The Clean Air Act's National Ambient Air Quality Standards*, in LESSONS FROM THE CLEAN AIR ACT 15, 18–19 (Ann Carlson & Dallas Burtraw eds., 2019).
 3. In 2017, the Office of Management and Budget estimated that rules issued by the EPA's Office of Air and Radiation resulted in \$180.5–665.4 billion of annual benefits. See OFFICE OF MGMT. & BUDGET, 2017 REPORT TO CONGRESS ON THE BENEFITS AND COSTS OF FEDERAL REGULATIONS AND AGENCY COMPLIANCE WITH THE UNFUNDED MANDATES REFORM ACT 10 (2017), available at https://www.whitehouse.gov/wp-content/uploads/2019/12/2019-CATS-5885-REV_DOC-2017Cost_BenefitReport11_18_2019.docx.pdf (“Across the Federal government, the rules with the highest estimated benefits as well as the highest estimated costs come from [the EPA] and in particular its Office of Air and Radiation. Specifically, EPA rules account for 71[%] to 80[%] of the monetized benefits and 55[%] to 64[%] of the monetized costs. Of these, rules that have a significant aim to improve air quality account for over 95[%] of the benefits of EPA rules.”).
 4. Clean Air Act, 42 U.S.C. § 7401 note (2018) (Promoting Domestic Manufacturing and Job Creation—Policies and Procedures Relating to Implementation of Air Quality Standards).
 5. See *infra* Part I.B.
 6. See *infra* Part I.B.
 7. See *infra* Part I.B.

longer conducting rigorous empirical analyses to understand and solve air-quality problems; instead, it is interpreting the CAA to establish that it lacks the authority to act.⁸ In so doing, the Trump Administration is reaching the conclusion that the EPA is directly or indirectly bound by the Act to do less to control air pollution.⁹ The Trump EPA is also discarding the balance between compliance flexibility and air-quality goals. It is deregulating to provide leniency to regulated sources and to preclude the Agency from re-embracing a more progressive interpretation of the CAA in the future.¹⁰ Through these actions, the EPA is defying its own mission as well as the language and logic of the statute.

If successful, the Trump EPA will curtail the Agency's long-term ability to effectively regulate sources of pollution, including greenhouse gas emissions. The Administration is advancing this deregulatory goal through two primary methods: imposing a static interpretation of the statutory text to limit its power to regulate; and undermining the structure of key provisions of the Act that contemplate a comprehensive strategy to reducing pollution. Through the latter strategy, the Trump EPA defeats the comprehensive nature of the CAA's pollution-abatement programs by disaggregating pollution sources and pollution reductions and sub-categorizing benefits when the Agency must determine whether to regulate. By looking narrowly at each problem, the EPA is preemptively justifying its conclusion that no action is warranted. In two recent rule-makings, the EPA acknowledges that the regulatory change will have negligible impacts on pollution levels.¹¹ Instead, the rule-makings emphasize the Agency's new legal interpretations, strongly suggesting that their purpose is to hamstring the EPA's future efforts to use the CAA to address emissions, especially climate pollutants.

This Article proceeds in three parts. First, we provide an overview of the foundation of the CAA, its progressive logic, and the judiciary's affirmation of the EPA's broad authority to address evolving air-quality problems. Second, we detail four actions by the Trump EPA that exemplify the Agency's strategy of undermining its own statutory authority: its repeal of the Clean Power Plan and the promulgation of the Affordable Clean Energy rule, its revocation of the waiver for

8. *See infra* Part II.

9. *See infra* Part II.

10. *See infra* Part II.

11. *See* Repeal of the Clean Power Plan; Emissions Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations, 84 Fed. Reg. 32,520, 32,536 (July 8, 2019) (to be codified at 40 C.F.R. pt. 60); *see also* Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review, 84 Fed. Reg. 50,244, 50,257 (proposed Sept. 24, 2019) (to be codified at 40 C.F.R. pt. 60).

California's regulation of greenhouse-gas-tailpipe emissions and the zero-emissions-vehicle program, its reversal of the "appropriate-and-necessary" finding for regulating hazardous air-pollutant emissions from power plants, and its proposed New Source Performance Standards for the oil and natural-gas sector.¹² Third, we conclude by describing the consequences of these actions.

I. THE CLEAN AIR ACT'S PROGRESSIVE NATURE

Congress designed the CAA to make continuous progress towards cleaner air. The CAA's first purpose is "to protect *and enhance* the quality of the Nation's air resources so as to promote the public health and welfare."¹³ The Act further states that "[a] primary goal of the Act is to encourage or otherwise promote reasonable Federal, State, and local governmental actions . . . for pollution prevention."¹⁴ The logic of the CAA is that the EPA must effectively protect the environment and public health in a manner that is reasonable for each specific pollution-control provision. As Senator Muskie affirmed during the 1970 debate on the Act, "Congress should make . . . commitments to meaningful environmental protection; effective protection of the health of all Americans; and the early achievement of these goals."¹⁵ Though these goals have proven more difficult to meet, Congress successfully enacted such a statute and tasked the EPA with continually working toward achieving its purposes.¹⁶ The courts have reinforced the EPA's statutory mandates, and have mostly upheld stringent pollution-control requirements based on the Agency's statutory interpretations.¹⁷ The courts have allowed the Agency to implement the statute in a less demanding manner only when the judiciary finds it is authorized by statute to do so.

A. *The Clean Air Act's Clear Statutory Mandate for Progress*

Woven into the CAA's fabric is a congressional mandate for progress, not through the sweeping aspirational language found in other environmental statutes, but by requiring recurrent standard-setting and upgrades to pollution-control techniques. The CAA demands that every five years the EPA determine whether the latest science compels a

12. At the time this Article went to the publishers, the Office of Information and Regulatory Affairs was reviewing the EPA's final rule revising the New Source Performance Standards for the oil and natural-gas sector.

13. Clean Air Act § 101(b)(1), 42 U.S.C. § 7401(b)(1) (2018) (emphasis added).

14. *Id.* § 101(c).

15. 116 CONG. REC. 32,903 (1970).

16. Clean Air Act § 101 (b).

17. *See infra* Part I.B.

revision of the NAAQS.¹⁸ If it does, then the EPA Administrator must revise the NAAQS accordingly. The Act further requires that every eight years the EPA determine whether technological advances warrant tightening emission standards for new and modified stationary sources of pollution.¹⁹ Congress complemented those tasks with mandates that the EPA act when states fail to meet their regulatory obligations triggered by the Agency's updates to the air-quality standards. In addition to the mechanisms designed to result in continually declining pollution, Congress suffused the Act's language with calls for the continuous reduction of air pollution. Maximalist adjectives are the foundation of the various technological standards: *best* available control technology,²⁰ *maximum* achievable control technology,²¹ *best* system of emission reduction,²² and *lowest* achievable emission rate,²³ for example.

The Act's central science-based, technological-diffusion mechanism begins with the EPA's mandatory review of the NAAQS. The Administrator must "complete a thorough review" of each ambient-air standard at five-year intervals and "make such revisions . . . and promulgate such new standards as may be appropriate"²⁴ to ensure the NAAQS "accurately reflect the latest scientific knowledge."²⁵ To fulfill this mandate, the EPA conducts a comprehensive review of the existing science through an extensive multi-step process that involves the Agency's expert staff and contributions from an independent expert review committee.²⁶ After the EPA receives public input and advice from experts, it decides whether to revise the allowable level of pollution in the ambient air. This decision must be based solely on public-health

18. Clean Air Act § 109(d)(1).

19. *Id.* §§ 111(b)(1)(B), 112(f)(2)(A).

20. *Id.* § 169(3).

21. *Id.* § 112(g)(2).

22. *Id.* § 111(a)(1).

23. *Id.* § 171(3).

24. *Id.* § 109(d)(1).

25. *Id.* § 108(a)(2).

26. Congress chartered The Clean Air Scientific Advisory Committee (CASAC) to advise the EPA on the adequacy of the existing standards and whether revisions are needed. *EPA Clean Air Scientific Advisory Committee Charter*, EPA, <https://yosemite.epa.gov/sab/sabproduct.nsf/WebCASAC/currentcharter?OpenDocument> [<https://perma.cc/H4DD-5GV8>] (last updated Sept. 21, 2015); *see also* Clean Air Act § 109 (d). Historically, the EPA has also formed auxiliary committees focused on certain pollutants, such as the Particulate Matter Review Panel, to assist the CASAC. *See Clean Air Scientific Advisory Committee (CASAC) Particulate Matter (PM) Review Panel*, EPA, <https://yosemite.epa.gov/sab/sabproduct.nsf/WebAllCASAC/casacpmpanel.html> [<https://perma.cc/5FX5-47ZZ>] (last updated Nov. 17, 2015).

considerations and may not consider other concerns such as cost or feasibility.²⁷

Because of the increasing understanding of air pollution's impact on human health, the NAAQS review process frequently results in the EPA tightening the existing standards. This triggers a chain of obligations for both the EPA and for states, resulting in new actions requiring further pollution reductions. The EPA first designates counties as either meeting the new standards ("in attainment") or exceeding the standards ("non-attainment").²⁸ States must then develop "State Implementation Plans" requiring pollution sources to reduce pollution to levels that will both ensure non-attainment counties reach attainment and "prevent significant deterioration" in areas that are already in attainment.²⁹ The plans rely on pollution-abatement technology to be diffused across sources and statutory programs, and they include requirements that newly constructed or renovated facilities install and operate up-to-date technology.³⁰ The installation and operation of those technologies foster further pollution-control innovations that inform future requirements for new pollution sources. Thus, Congress created a mechanism to continually incorporate the latest public-health science into CAA programs, in part so that pollution-control methods across the United States would constantly improve.³¹

Other provisions in the CAA also obligate EPA to advance science and technology. Prior to the enactment of the CAA, California established the first automobile-tailpipe-emissions standards to combat the state's serious smog challenges.³² While Congress established a program for national tailpipe emissions in the CAA in 1970, it also recognized California's uniquely severe air-quality problems and ratified the state's role as an ongoing leader in forcing technology advancements by the auto industry. Section 209 of the CAA preempts states from establishing tailpipe-emissions standards, but it authorizes the EPA to grant California a waiver if California establishes that its standards are at least as protective as the national standards and if the state meets

27. See *Whitman v. American Trucking Ass'ns*, 531 U.S. 457, 471 (2001).

28. Clean Air Act § 107(d).

29. *Id.* § 110 (State Implementation Plans).

30. *Id.* §§ 110(a)(2)(C), 165(a)(4), 173.

31. Boyd, *supra* note 2, at 18 ("By design, the NAAQS program is always in motion, but the goals and overall direction of the program are clear, and there are procedural mechanisms in place that continue to push the program forward.").

32. *History*, CA. AIR RESOURCES BOARD, <https://ww2.arb.ca.gov/about/history> [<https://perma.cc/S4CD-P286>] (last visited June 23, 2020).

certain criteria.³³ Congress built into the statute a presumption that the EPA would grant California a waiver by placing on the EPA, and any opponents of the waiver, the burden to demonstrate that one of three criterion for denying a waiver has not been met.³⁴ Only then may the EPA deny the request. Ratifying California's role as a technology leader and conferring a statutory presumption in its favor shows the lengths Congress went to bolster the CAA's technology-forcing and emissions-reductions goals.

For decades, California has carried out that role by adopting a series of tailpipe-emissions programs and seeking and receiving § 209 waivers to enforce its requirements for innovative automotive-pollution-control technology. For example, in 1990, California established its Zero-Emission Vehicle regulation requiring auto-manufacturers to produce and offer for sale a specific number of cars with the most advanced emissions technology.³⁵ The EPA granted a waiver for the program in 1993.³⁶ In 2004, years before the federal government began regulating greenhouse-gas-tailpipe emissions, California set standards for automotive greenhouse-gas emissions, and in 2009, the EPA issued a waiver for that program.³⁷ Furthermore, under CAA § 177, other

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33. Clean Air Act § 209(b)(1) (“The Administrator shall . . . waive application of this section to any State which has adopted standards . . . for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966, if the State determines that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards.”).
34. *Id.* § 209(e)(2)(A)(i)–(iii); *see also* California State Motor Vehicle Pollution Control Standards; Notice of Decision Granting a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emissions Standards for New Motor Vehicles, 74 Fed. Reg. 32,744, 32,745 (July 8, 2009) (“Congress recognized that California could serve as a pioneer and a laboratory for the nation in setting new motor vehicle emission standards. Congress intentionally structured this waiver provision to restrict and limit [the] EPA's ability to deny a waiver, and did this to ensure that California had broad discretion in selecting the means it determined best to protect the health and welfare of its citizens.”).
35. *Zero Emission Vehicle Program*, CA. AIR RESOURCES BOARD, <https://ww2.arb.ca.gov/our-work/programs/zero-emission-vehicle-program/about> [<https://perma.cc/UYN7-WNC3>] (last visited June 23, 2020); *see also* Notice of California State Motor Vehicle Pollution Control Standards; Waiver of Federal Preemption; Decision, 58 Fed. Reg. 4166 (July 13, 1993).
36. Notice of California State Motor Vehicle Pollution Control Standards, 58 Fed. Reg. at 4,166.
37. California State Motor Vehicle Pollution Control Standards, 74 Fed. Reg. at 32,745; *see also* Jody Freeman, *The Obama Administration's National Auto Policy: Lessons from the "Car Deal"*, 35 HARV. ENVTL. L. REV. 343, 349–51 (2011) (describing the history of federal and state regulations of greenhouse-gas tailpipe emissions).

states have the authority to adopt California's standards once a waiver is granted.³⁸ While CAA § 209 encourages technology development, § 177 facilitates technology dissemination and emissions reductions on a broad scale.³⁹

The history of greenhouse-gas regulation under the CAA provides another example of the Act's foundational features. Once Congress or the EPA determines that a pollutant poses a threat to public health or the environment, the EPA and the states are charged with carrying out a network of mandates to comprehensively solve the problem and to advance technological developments.⁴⁰ In 2003, a coalition of environmental organizations, states, and cities sued the EPA for its failure to regulate greenhouse gases after the EPA denied their petition seeking regulation on the grounds that it lacked the statutory authority to do so.⁴¹ In 2007, the Supreme Court in *Massachusetts v. EPA*⁴² found that greenhouse gases "fit well within the Clean Air Act's capacious definition of 'air pollutant'" and that EPA had the authority to regulate these pollutants.⁴³ This decision compelled the Agency to conduct an analysis to determine whether greenhouse gases emitted by automotive sources endangered the public's health and welfare.⁴⁴ Ultimately, the Agency determined that they did and that new motor vehicles "cause and contribute to" greenhouse-gas pollution.⁴⁵ These two findings triggered a CAA requirement to regulate vehicles' greenhouse-gas-tailpipe emissions. Regulation of emissions from mobile sources meant, in turn, that greenhouse gases were generally "subject to regulation" under the CAA, triggering still other statutory provisions related to greenhouse gas emissions from stationary sources.⁴⁶ This cascade of new

38. Clean Air Act § 177.

39. Compare *id.* § 209, with *id.* § 177.

40. See, e.g., *id.* § 169 (requiring the EPA, and permitting the states, to prevent the construction of major emitting facilities).

41. Petition for Review, *Massachusetts v. EPA*, 415 F.3d 50 (D.C. Cir. 2005) (No. 03-1361).

42. 549 U.S. 497 (2007).

43. *Id.* at 532.

44. Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496, 66,497–99 (Dec. 15, 2009) (to be codified at 40 C.F.R. ch. 1).

45. *Id.*

46. See, e.g., Repeal of the Clean Power Plan; Emissions Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations, 84 Fed. Reg. 32,520 (July 8, 2019) (to be codified at 40 C.F.R. pt 60) (regulating greenhouse gas emissions from power plants under Clean Air Act § 111(b), (d)), 42 U.S.C. 7411 (2018)). But see *Util. Air Regulatory Grp. v. EPA*, 573 U.S. 302 (2014) (holding that the EPA may regulate

regulations reflects the progressive nature of the CAA's regulatory apparatus.

The CAA's language clearly demonstrates Congress's intention that the EPA become an agency reliant on, and helping to aid, the advancement of science and technology. Congress mandated for the EPA a permanent, ongoing agenda defined and driven by such advances. Over time, the EPA's actions in following this agenda have made practical contributions to scientific and technological advancement, resulting in a virtuous cycle supporting continual air-quality improvement.

Congress balanced this demand with constraints that guide the Agency and ensure feasible regulatory requirements. One of the explicit purposes of the CAA is to promote reasonable pollution-prevention strategies.⁴⁷ Accordingly, and as appropriate, Congress explicitly instructs the EPA to consider costs and other consequences of requiring certain pollution-control technologies.⁴⁸ In turn, the courts have interpreted certain CAA provisions as affording the Agency sufficient latitude to offer regulated sources a certain level of compliance flexibility.⁴⁹ This expansive reading of the Agency's authority in compliance matters mirrors the broad authority granted the Agency through the progressive elements of the statute. Though these feasibility requirements constrain the EPA, in the sense that it cannot mandate unreasonable pollution-control programs, even if those programs would result in large emissions reductions, they align with the Act's progressive air-quality goals. The limitations ensure the regulated community can meet the statute's pollution-reduction requirements, which are a prerequisite for the successful implementation of the CAA.

B. The EPA's Understanding of Its Mandate

Since the passage of the 1990 CAA amendments, the EPA has understood the Act as containing the tools necessary for adapting the statute to confront newly discerned air-quality issues. Many commentators point to congressional inaction on climate change as driving the

greenhouse gases from already-regulated sources, but it cannot read the regulation of greenhouse gases under Clean Air Act § 202 as triggering Title V and Prevention of Significant Deterioration permitting requirements).

47. Clean Air Act § 101(c).

48. *E.g., id.* § 169(3) (“The term ‘best available control technology’ means an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this [Act] . . . which the permitting authority . . . taking into account energy, environmental, and economic impacts and other costs, determines is achievable . . .”).

49. *See, e.g., Chevron U.S.A., Inc. v. Nat. Res. Def. Council*, 467 U.S. 837, 866 (1984) (“We hold that the EPA's definition of the term ‘source’ is a permissible construction of the statute which seeks to accommodate progress in reducing air pollution with economic growth.”).

EPA's expansive understanding of its statutory authority.⁵⁰ Regardless of the impetus, the way in which CAA authorities have created the EPA's need to address modern air-quality problems and facilitated EPA's responses reinforces the statute's progressive design. The EPA under George W. Bush and Barack Obama adopted an expansive reading of the CAA to accomplish the Agency's goals.⁵¹ The Bush Administration generally privileged low regulatory costs when identifying the issue to be addressed, and, as a result, read its statutory authority as sufficiently expansive to promote compliance flexibility.⁵² The Obama EPA, however, read the Act as providing the Agency with the latitude to design innovative pollution-control programs as newly understood air-quality challenges reached levels of urgency sufficient to demand solutions.⁵³

The EPA's effort to address the long-range transport of air pollution, an effort spanning three administrations, crystallizes the EPA's, and the courts', progressive reading of the CAA. The EPA put in place a multi-state emissions-trading program, relying entirely on the authority granted to the Agency in CAA § 110(a)(2)(D) and (c)(1), which help ensure that all states implement plans to meet the NAAQS⁵⁴:

Each implementation plan submitted by a State . . . shall . . . contain adequate provisions prohibiting . . . any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will *contribute significantly to* nonattainment in, or interfere with maintenance by, any other State⁵⁵

The administrator *shall promulgate a Federal implementation plan* at any time within [two] years after the Administrator finds

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50. See Jody Freeman & David B. Spence, *Old Statutes, New Problems*, 163 U. PA. L. REV. 1, 42 (2014) (“[D]uring periods of congressional dysfunction, agencies must adapt aging statutory authority to new problems, shifting the locus of policymaking first to agencies and then to the courts.”).
51. See Cross-State Air Pollution Rule, 76 Fed. Reg. 48,208 (Aug. 8, 2011) (to be codified at 40 C.F.R. pts. 51, 52, 72, 78, and 97); see also Clean Air Interstate Rule, 70 Fed. Reg. 25,161 (May 12, 2005) (to be codified at 40 C.F.R. pts. 51, 52, 72, 78, and 97).
52. The Bush administration, however, denied a petition to regulate greenhouse gas emissions from motor vehicles, determining that the Agency lacked the statutory authority to do so. Notice of Denial of Petition for Rulemaking of Control of Emissions from New Highway Vehicles and Engines, 68 Fed. Reg. 52,922, 52,925 (Sept. 8, 2003).
53. See, e.g., Cross-State Air Pollution Rule, 76 Fed. Reg. at 48,208.
54. Clean Air Act § 110(a)(2)(D), (c)(1), 42 U.S.C. § 7410(a)(2)(D), (c)(1) (2018).
55. *Id.* § 110(a) (emphasis added).

that a State has failed to make a required submission or finds that the plan or plan revision submitted by the State does not satisfy the minimum criteria . . . or disapproves a State implementation plan submission in whole or in part⁵⁶

Notably, both provisions are silent as to the type of action they require the EPA to take. From the words “adequate provisions” and “contribute significantly,” and the mandate to implement federal plans when states do not meet the minimum criteria, the EPA designed a multi-pollutant emissions-trading program affecting twenty-seven states, which the Supreme Court ultimately upheld.⁵⁷ Building on an effort that began during the Clinton presidency,⁵⁸ the Bush Administration in 2005 promulgated the Clean Air Interstate Rule (the “Interstate Rule”) to address pollution from upwind states that was preventing downwind states from meeting the NAAQS.⁵⁹ The rule required statewide emissions reductions in order to comply with the CAA, and it included EPA-administered voluntary cap-and-trade programs.⁶⁰ States could require power plants to join the cap-and-trade programs in order to meet the Interstate Rule’s requirements “in a flexible and cost-effective manner.”⁶¹

The D.C. Circuit invalidated the Interstate Rule in 2008 for multiple reasons, including that the EPA set region-wide caps rather than state-specific caps.⁶² The court determined that the statute called for state-specific emissions-reduction obligations.⁶³ The court based its objection to the Interstate Rule on the determination that the features of the program violated the CAA by failing to sufficiently address the long-range pollution impact on downwind air quality.⁶⁴ The court did not even consider whether the EPA lacked the authority to establish such a comprehensive regulatory program under the statute’s express

56. *Id.* § 110(c)(1) (emphasis added).

57. *EPA v. EME Homer City Generation L.P.*, 572 U.S. 489, 5244 (2014).

58. Supplemental Notice for the Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone, 63 Fed. Reg. 25,902 (May 11, 1998) (to be codified at 40 C.F.R. pts. 51, 76, 96).

59. Clean Air Interstate Rule, 70 Fed. Reg. 25,161, 25,162 (May 12, 2005) (to be codified at C.F.R. pts. 51, 72, 73, 74, 77, 78, 96).

60. *Id.* at 25,165–70.

61. *Id.* at 25,162.

62. *North Carolina v. EPA*, 531 F.3d 896, 929–30 (D.C. Cir. 2008).

63. *Id.*

64. *Id.* at 908.

terms.⁶⁵ Rather, the court accepted the premise that the statute authorized the EPA to create a program more elaborate than either the one proposed in the Interstate Rule or the Title IV acid-rain trading program (a highly prescriptive regulatory program that Congress wrote into the text of the CAA).⁶⁶

Under the Obama Administration, the EPA promulgated the Cross-State Air Pollution Rule (the “Cross-State Rule”), which sought to remedy the flaws the D.C. Circuit identified in the Interstate Rule.⁶⁷ The Cross-State Rule included an intricate, four-part science-based test through which the EPA allocated emissions budgets to each state, using federal implementation plans to establish each state’s emissions-reductions requirements.⁶⁸ The Cross-State Rule was even more complex than the Interstate Rule. It included a mechanism that allowed pollution sources to rely on interstate trading while maintaining state-specific emissions budgets.⁶⁹ The program also specified four different regional trading markets, covered two different pollutants, and operated through both annual and seasonal budgets for each pollutant.⁷⁰ The Supreme Court ultimately upheld the Cross-State Rule as a proper exercise of EPA’s authority under CAA § 110.⁷¹

The elevation of empiricism common across the CAA’s standard-setting provisions spurred the progressive interpretation supporting the Interstate and Cross-State rules. Although interstate air pollution presented a more complex challenge than Congress likely recognized when it drafted the CAA, the EPA interpreted its authority under the CAA as suitable for solving the problem, as the Agency understood it.⁷² Through rigorous analysis of a broad range of scientific research, the EPA understood that pollutants emitted in large quantities and transported over long distances contributed significantly to air-quality problems in local air sheds. The EPA recognized that fossil-fuel-fired power plants were substantially responsible for that problem and that significantly cutting their emissions would improve downwind air

65. *Id.* at 906 (“North Carolina challenges the lawfulness of CAIR’s trading programs for SO₂ and NO_x. North Carolina contests the lack of reasonable measures in CAIR to assure that upwind states will abate their unlawful emissions . . . but does not submit that any trading is per se unlawful.”).

66. *See id.* at 902–03, 929–30.

67. Cross-State Air Pollution Rule, 76 Fed. Reg. 48,207 (Aug. 8, 2011) (to be codified at 40 C.F.R. pts. 51, 52, 72, 78, 97).

68. *See Wisconsin v. EPA*, 938 F.3d 303, 309–12 (D.C. Cir. 2019) (describing the components of CSAPR).

69. Cross-State Air Pollution Rule, 76 Fed. Reg. at 48,209–16.

70. *Id.* at 48,246–52.

71. *EPA v. EME Homer City Generation, L.P.*, 572 U.S. 489, 524 (2014).

72. *Id.* at 495–505.

quality.⁷³ Since acid deposition was also the result of the long-range transport of pollution, the EPA followed Congress's lead and identified the multi-state cap-and-trade model as highly effective for addressing long-range pollution transport, which degraded downwind air quality.⁷⁴ The EPA used this analysis to give meaning to the terms "adequate provision" and "contributes significantly," intertwining statutory interpretation, empirical analysis, and fact-finding.⁷⁵

The Bush EPA pioneered a similar expansiveness in the interpretation of its authority under CAA § 111 (standards of performance for new and existing stationary sources), which contains the following provisions:

(a)(1): 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.⁷⁶

...

(d)(1): The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by [§ 110] under which each State shall submit to the Administrator a plan which . . . establishes standards of performance for any existing source for any air pollutant . . .⁷⁷

Building on the Interstate Rule, the Bush EPA implemented the Clean Air Mercury Rule (the "Mercury Rule"), which interpreted the phrase "best system of emission reduction" in CAA § 111(a)(1) as authorizing the Agency to design a nationwide emissions-trading program for power plant mercury emissions.⁷⁸ In the final rule promulgating the cap-and-trade program, the Agency explained:

73. See, e.g., *North Carolina v. EPA*, 531 F.3d 896, 902–03 (D.C. Cir. 2008).

74. *Id.*

75. *Id.* at 901–05.

76. Clean Air Act § 111(a)(1), 42 U.S.C. § 7411(a)(1) (2018) (emphasis added).

77. *Id.* § 111(d).

78. The Clean Air Mercury Rule states:

The term "standard of performance" is not explicitly defined to include or exclude an emissions cap and allowance trading program. In the final rule, EPA interprets the term "standard of performance," as applied to existing sources, to include a cap-and-trade program A requirement for a cap-and-trade

The term “standard of performance” is not explicitly defined to include or exclude an emissions cap and allowance trading program. . . . EPA interprets the term “standard of performance” as applied to existing sources, to include a cap-and-trade-program. This interpretation is supported by a careful reading of the section 111(a) definition of the term⁷⁹

The EPA then determined that a cap-and-trade program, as opposed to a technology-performance standard under § 112, represented “the best system of emissions reductions” for curbing mercury pollution. Ultimately, the EPA garnered significant criticism for the Mercury Rule’s substantive qualities, as well as for the rule-making process leading to the final rule.⁸⁰ The D.C. Circuit struck down the final rule, but it did so without reaching issues related specifically to the Agency’s interpretation of § 111(a).⁸¹

Like the Interstate Rule (in the case of CAA § 110(a)(2)(D) and (c)(1)), the Mercury Rule anticipated, to an extent, the Obama EPA’s

program (i) constitutes a “standard for emissions of air pollutants;” (*i.e.*, a rule for air emissions), (ii) “which reflects the degree of emission limitation achievable” (*i.e.*, which requires an amount of emissions reductions that can be achieved), (iii) “through application of (a) * * * system of emission reduction” (*i.e.*, in this case, a cap-and-trade program that caps allowances at a level lower than current emissions).

Clean Air Mercury Rule, 70 Fed. Reg. 28,606, 28,616 (May 18, 2005) (to be codified at 40 C.F.R. 60, 72, and 75) (quoting H.R. REP. NO. 95-294, at 195 (1977)).

79. *Id.*

80. See Andrew Carter, *Alchemical Rulemaking and Ideological Framing: Lessons from the 40-Year Battle to Regulate Mercury Emissions from Electric Power Plants*, 58 NAT. RESOURCES J. 125, 158 (2018) (“Members of the Senate Environment and Public Works Committee were suspicious of the process resulting in the 2004 Proposed CAMR, and requested analyses of the proposed rule from EPA’s Office of Inspector General (OIG), and from the Government Accountability Office (GAO), both of which released reports highly critical of the Proposed CAMR and the process by which it was created.”).

81. The court struck down the Delisting Rule, which removed coal and oil-fired power plants from the list of sources whose emissions are regulated under § 112—a prerequisite to implementing the CAMR. See *New Jersey v. EPA*, 517 F.3d 574, 583–84 (D.C. Cir. Feb. 8, 2008) (“EPA thus concedes that if EGUs remain listed under section 112, as we hold, then the CAMR regulations for existing sources must fall. EPA promulgated the CAMR regulations for new sources under section 111(b) on the basis that there would be no section 112 regulation of EGU emissions and that the new source performance standards would be accompanied by a national emissions cap and a voluntary cap-and-trade program. Given that these vital assumptions were incorrect, the court must vacate CAMR’s new source performance standards and remand them to EPA for reconsideration”) (citations omitted).

interpretation of § 111(d) and the definition of “best system of emissions reduction.”⁸² When the Obama EPA began constructing the Clean Power Plan, the Agency again engaged in an empirical investigation to give meaning to “best system of emission reduction.” Section 111(d) of the CAA requires that states submit plans establishing “standards of performance” for power plants,⁸³ with “standards of performance” defined as standards reflecting the “best system of emission reduction.”⁸⁴ Pursuant to the President’s instruction, the Agency undertook a robust process of public engagement to determine the “best system of emission reduction” and to develop guidelines for how states should establish standards of performance for power plant carbon-dioxide emissions under § 111(d).⁸⁵ The EPA acquired extensive information and observed that the demands of the networked electricity grid dictated the operation of power plants. Specifically, it found that shifting electricity generation from higher-emitting to lower-emitting sources was a well-established, widely used strategy within the power sector for complying with pollution-control programs.⁸⁶ The EPA then issued guidelines that offered states a broad menu of standard-setting options so that power plant-emissions standards fully reflected the EPA’s determination that generation-shifting constituted the best system of emission reduction. In doing so, the EPA rejected a reading of § 111(d) that would bar states from adopting standards that encompassed generation-shifting.⁸⁷ Instead, the Agency recognized that, since there were a variety of ways in which states could define standards of performance, the statute conferred on states sufficient flexibility to

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82. *See generally* Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,661 (Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60).
83. Clean Air Act § 111(d), 42 U.S.C. § 7412(l)(1) (2018).
84. *Id.* § 111(a)(1).
85. Memorandum on Power Sector Carbon Pollution Standards, 2013 DAILY COMP. PRES. DOC. 457 (June 25, 2013).
86. *See* Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. at 64,728–29 (“As described in section V.D. below, analysis reflecting consideration of the many comments we received on the EPA’s proposal with respect to this issue supports the inclusion of generation shifting from higher-emitting to lower-emitting EGUs as a component of the BSER. Shifting of generation among EGUs is an everyday occurrence within the integrated operations of the utility power sector . . .”).
87. *See id.* at 64,752 (“Under section 111(d), states determine the standards of performance for individual sources. The EPA is authorizing states to express the standards of performance applicable to affected EGUs as either emission rate-based limits or mass-based limits. As described above, the sets of actions that sources can take to comply with these standards implement or apply the BSER and, in that sense, may be understood as part of the BSER.”).

set standards that matched the EPA's determination of the "best system of emission reduction."⁸⁸

The Cross-State Rule and the Clean Power Plan illustrate an additional aspect of the CAA's progressive character. The same provision requiring periodic review of technology standards, Section 111, requires that those standards reflect the "best system of emission reduction" as determined by the EPA Administrator.⁸⁹ Making that determination is an inherently empirical exercise. Like other CAA provisions, the language of Section 111 conveys a directive to search for new information to provide the answer to a question. It does not convey an inherent, static meaning that can be determined solely through textual analysis. Rather, the language must be interpreted to reflect or incorporate the empirical results of the Agency's investigation.

C. Judicial Backing of a Progressive Clean Air Act

The judiciary has consistently found that Congress gave the EPA the authority to continually address previously unknown air-quality problems.⁹⁰ This has remained true for the nearly three decades that have passed since the most recent CAA amendments. Recent decisions on the merits by the Supreme Court, in particular, and lower courts, continue to back this progressive understanding of the CAA's logic. The Court's endorsement is most apparent in the seminal case *Massachusetts v. EPA*,⁹¹ which challenged the Bush Administration's determination that it lacked the authority under the CAA to regulate greenhouse-gas-tailpipe emissions.⁹² Writing for the majority, Justice Stevens explained Congress's awareness that only through enacting a statute that tracked scientific progress would Congress be able to empower the EPA to face the nation's air-quality challenges:

While the Congress that drafted § 202(a)(1) might not have appreciated the possibility that burning fossil fuels could lead to global warming, they did understand that without regulatory flexibility, changing circumstances and scientific developments would soon render the Clean Air Act obsolete. The broad

88. *See id.* at 64,667 ("In developing plans, states will need to choose the type of plan they will develop. . . . This final rule includes several options for state plans . . .").

89. Clean Air Act § 111(a)(1).

90. *See Nat. Res. Def. Council v. EPA*, 777 F.3d 456, 457 (D.C. Cir. 2014) ("Under the Clean Air Act, the Environmental Protection Agency promulgates National Ambient Air Quality Standards for air pollutants.").

91. 549 U.S. 497 (2007).

92. *Id.* at 505.

language of § 202(a)(1) reflects an intentional effort to confer the flexibility necessary to forestall such obsolescence.⁹³

Justice Stevens underscores the importance of reading dynamically the CAA so as to not make such a broad and ambitious statute “obsolete.” Ultimately, even though the Court acknowledged that Congress did not specifically contemplate applying the CAA to greenhouse gas emissions, it rejected the EPA’s denial of its own statutory power.⁹⁴ Instead, it held that the CAA required the EPA to treat greenhouse gases as air pollutants, as defined by the statute, to determine whether they presented a threat to public health or the environment, and if so, to use the tools Congress granted the Agency to regulate air pollution.⁹⁵

Similarly, in *EPA v. EME Homer City Generation L.P.*, the Supreme Court upheld the Cross-State Rule.⁹⁶ In that rule, the EPA promulgated both emissions budgets for each upwind state and federal implementation plans that applied those budgets to affected states after finding that the states themselves failed to promulgate adequate plans.⁹⁷ The D.C. Circuit vacated the rule, in part finding, without identifying any statutory basis for its conclusion, that the EPA needed to allow states extra time to develop implementation plans following the EPA’s promulgation of the emissions budgets.⁹⁸ The Supreme Court overturned the D.C. Circuit, noting that “the statute speaks without reservation” regarding what it requires of the EPA.⁹⁹ Writing for the majority, Justice Ginsburg scolded the D.C. Circuit for “stretch[ing] out” the statute’s implementation process: “[The D.C. Circuit] allowed a delay Congress did not order and placed an information submission on [the] EPA Congress did not impose. The D.C. Circuit . . . had no warrant thus to revise the CAA’s *action-ordering prescriptions*.”¹⁰⁰ The Court thus interprets the Act’s “action-ordering prescriptions” as

93. *Id.* at 532.

94. *Id.* at 529–30.

95. *Id.* at 528–30; *see also* William W. Buzbee, *Agency Statutory Abnegation in the Deregulatory Playbook*, 68 DUKE L.J. 1509, 1582 (2019) (“Both in its discussion of standing and its overall construction of the statute, the Court mandated that the agency undertake whatever actions Congress had required based on the statutory criteria, even if regulation would represent only an incremental step toward a larger goal.”).

96. 572 U.S. 489, 524 (2014).

97. Cross-State Air Pollution Rule, 76 Fed. Reg. 48,208 (Aug. 8, 2011) (to be codified at 40 C.F.R. pts. 51, 52, 72, 78, and 97).

98. *EME Homer City Generation L.P. v. EPA*, 696 F.3d 7, 37 (D.C. Cir. 2012).

99. *Id.* at 509.

100. *Id.* at 510 (emphasis added).

authorizing the EPA to implement a far-reaching, complex program based on a mandate for “adequate provisions” to address the significant contribution of upwind states’ pollution on downwind air quality.¹⁰¹

The judiciary has also upheld the Agency’s responsibility to meet Congress’s ambition for widespread dissemination of leading pollution-control technology, even when the EPA itself shies away from that responsibility.¹⁰² In 2018, the D.C. Circuit reviewed the EPA’s establishment of Maximum Achievable Control Technology (MACT) standards for emissions from newly constructed brick kilns.¹⁰³ MACT standards are set by identifying the best performing existing sources and establishing a floor—or minimum stringency requirement—at or above which the EPA must set the final standards.¹⁰⁴ The EPA’s brick kiln MACT rule allowed pollution sources to choose between three emissions limits, expressed in different measurement units, all of which the EPA defined as representing the “best” performing sources.¹⁰⁵ The EPA intended to offer polluters compliance flexibility, arguing that each pollution sources’ ability to comply differed based on how pollution was measured.¹⁰⁶ The D.C. Circuit held that while the EPA could choose the proper unit of measurement, its “discretion [did] not extend to defining several different ‘best’ metrics within the same category and allowing emitters to comply with the most favorable standard.”¹⁰⁷ The EPA could not contradict the statute’s clear language inducing dissemination of advanced pollution-control technology.

Similarly, in *New York v. EPA*,¹⁰⁸ the D.C. Circuit invalidated an EPA rule that allowed facilities to avoid more stringent regulations for modified pollution sources by broadening the routine maintenance-repair-and-replacement exclusion to include non-*de minimis* modifications.¹⁰⁹ Under the CAA’s New Source Review program, when a pollution source’s emissions will increase because of a modification, it must meet stringent pollution-control requirements.¹¹⁰ Although the EPA has historically excluded *de minimis* component part replacements from triggering the review program, it finalized a rule in 2003 that categorically excluded replacements under a certain value without

101. *Id.* at 499.

102. *See* *Sierra Club v. EPA*, 895 F.3d 1, 22 (D.C. Cir. 2008).

103. *Id.* at 7–8.

104. *Id.* at 8.

105. *Id.* at 15.

106. *Id.*

107. *Id.* at 15–16.

108. 443 F.3d 880 (D.C. Cir. 2006).

109. *Id.* at 890.

110. *Id.* at 883.

considering the resulting emissions change.¹¹¹ The court reasoned that this exclusion contradicted the statute's intent:

Given Congress's goal . . . of establishing a balance between economic and environmental interests, it is hardly "farfetched," for Congress to have intended [New Source Review] to apply to any type of physical change that increases emissions. . . . [The] EPA's interpretation would produce a "strange," if not an "indeterminate," result: a law intended to limit increases in air pollution would allow sources operating below applicable emissions limits to increase significantly the pollution they emit without government review.¹¹²

The D.C. Circuit made clear that the EPA could not provide flexibility to regulated industry if doing so would contradict the CAA's pollution-control purpose.¹¹³

At times, the Supreme Court has allowed the EPA to use its expansive authority to design flexible compliance mechanisms for industry or it has cabined the EPA's authority. These cases are not counter to a progressive reading of the statute. In *Utility Air Regulatory Group (UARG) v. EPA*,¹¹⁴ the Supreme Court upheld the EPA's regulation of greenhouse-gas emissions from pollution sources already within the CAA's permitting program, while invalidating only the section that made greenhouse-gas emissions a trigger for additional permitting requirements under the Act.¹¹⁵ The rule in question in *UARG* would have required CAA permits, solely based on carbon dioxide emissions, for thousands of entities never before subject to permitting requirements.¹¹⁶ Justice Scalia, writing for the majority, distinguished between the statutory text in the permit-triggering provisions¹¹⁷ and that in the provision applicable to already-regulated sources.¹¹⁸ According to Justice Scalia, the "breadth" of the phrase "any air pollutant" in the permit-triggering provision did not allow a

111. *Id.*

112. *Id.* at 886 (citations omitted).

113. *Id.* at 889–90.

114. 573 U.S. 302 (2014).

115. *Id.* at 333–34.

116. *Id.* at 332.

117. *Id.* at 316–17 (describing the EPA's historic interpretation of "any air pollutant" in the Prevention of Significant Deterioration provisions and Title V).

118. *Id.* at 329 ("To obtain a PSD permit, a source must be 'subject to the best available control technology' for 'each pollutant subject to regulation under [the Act]' that it emits.") (quoting 42 U.S.C. § 7475(a)(4) (1976) (alteration in original)).

“transformative expansion in [the] EPA’s regulatory authority.”¹¹⁹ At the same time, he interpreted the statute’s language mandating that permitting requirements apply to “each pollutant subject to regulation under this chapter,” as compelling the EPA to impose pollution-control requirements on already-regulated sources.¹²⁰

Perhaps surprisingly, Justice Scalia’s decision in *URG* is an enlightening example of a progressive reading of the CAA. It does not afford the Agency unlimited discretion but rather recognizes Congress’s intention for the EPA to address previously unknown problems in a “context-appropriate”¹²¹ manner that aligns with the statute’s mandates. When the EPA oversteps and attempts to rewrite the statute to significantly expand its authority, the Court invalidates the rule. But when the EPA accepts its statutory mandate and regulates greenhouse gases from already-regulated sources, the Court upholds the program as a reasonable interpretation of the CAA given the new realities revealed by science.

In the same vein, the Court in *Michigan v. EPA*¹²² required the EPA to consider costs when making an “appropriate and necessary” determination for regulating hazardous air-pollutant emissions from power plants.¹²³ At issue in *Michigan* was CAA § 112(n)(1)(A), which requires the EPA to study available pollution-control technology and the public-health impacts of power plants’ hazardous air pollutant emissions after other CAA programs are implemented and to determine, based on the results of that inquiry, whether it is “appropriate and necessary” to regulate those emissions.¹²⁴ In making its initial appropriate-and-necessary determination in 2012, the EPA did not consider the cost of regulation.¹²⁵ While the Court invalidated this approach, it also expressly stated that it was entirely up to the Agency

119. *Id.* at 324, 331–32.

120. *Id.* at 331–32 (“Whereas the dubious breadth of ‘any air pollutant’ in the permitting triggers suggests a role for agency judgment in identifying the subset of pollutants covered by the particular regulatory program at issue, the more specific phrasing of the [Best Available Control Technology (BACT)] provision suggests that the necessary judgment has already been made by Congress. The wider statutory context likewise does not suggest that the BACT provision can bear a narrowing construction: There is no indication that the Act elsewhere uses, or that EPA has interpreted, ‘each pollutant subject to regulation under this chapter’ to mean anything other than what it says.”).

121. *Id.* at 317 (“It takes some cheek for EPA to insist that it cannot possibly give ‘air pollutant’ a reasonable, context-appropriate meaning in the PSD and Title V contexts when it has been doing precisely that for decades.”).

122. 135 S. Ct. 2699 (2015).

123. *Id.* at 2711.

124. *Id.* at 2705.

125. *Id.*

to determine the proper method for cost consideration.¹²⁶ By stopping short of prescribing a strict cost-benefit analysis, the Court did not corner the EPA into concluding that such regulation was not appropriate if it did not find that benefits outweighed costs. With this judgment, the Court preserved the EPA's authority to carry out Congress's clear intent of ensuring that hazardous air-pollutant emissions from power plants were reduced—either as a result of compliance with other CAA programs or through regulation under § 112.

The judiciary's limitations on the EPA's authority, which tend to focus on the manner in which the EPA exercises that authority, do not undermine the generally progressive interpretation of the CAA. On the whole, the courts have upheld this understanding, expecting the Agency to address newly discovered air-quality challenges in a manner that reflects advancements in science and technology.¹²⁷

II. THE TRUMP ADMINISTRATION'S ACTIONS TO RESTRICT THE AGENCY'S AUTHORITY

The Trump EPA is using its regulatory rollbacks to limit its statutory authority to effectively confront current and future air pollution challenges. Rather than deregulating by changing its policy judgments to favor compliance flexibility or more lenient emissions

126. *Id.* at 2711.

127. This observation remained true at least until February 9, 2016, when the Supreme Court, without issuing an opinion on the merits, stayed the Clean Power Plan. *West Virginia v. EPA*, 136 S. Ct. 1000 (2016). A unanimous three-judge panel of the D.C. Circuit Court of Appeals had denied West Virginia's motion for a stay. *See* Order Denying Motion for Stay, *West Virginia v. EPA*, No. 15-1363 (D.C. Cir. Jan. 21, 2016); Petitioners argued, *inter alia*, that that the Clean Power Plan was an unlawful transformation of the EPA's statutory authority and that § 111(d) unambiguously precluded the Agency from requiring generation shifting. Reply Brief of Petitioners on Core Legal Issues at 1, 3, 12, *West Virginia v. EPA*, No. 15-1363 (D.C. Cir. Apr. 22, 2016). The Trump EPA adopted these arguments in its Repeal of the Clean Power Plan. EPA, FACT SHEET: REPEAL OF THE CLEAN POWER PLAN (2019), available at https://www.epa.gov/sites/production/files/2019-06/documents/cpp_repeal_fact_sheet_6.18.19_final.pdf [<https://perma.cc/DG2N-A3HB>].

In *Mexichem Flour v. EPA*, 866 F.3d 451 (D.C. Cir. 2017) then-Judge Kavanaugh, writing for a split panel, vacated an EPA rule regulating hydrofluorocarbons. *Id.* at 454. The majority's analysis, relying on Merriam-Webster's dictionary for its statutory interpretation, rejected an interpretation of the Clean Air Act § 612, which the EPA had taken to mean that Congress intended the Agency to periodically update the list of approved and disapproved hydrofluorocarbon substitutes as new chemicals when improved environmental impacts became available. *Id.* at 458-59.

requirements, the Administration is attempting to undermine the EPA's ability to progressively implement the statute by offering interpretations that read out of the statute its progressive elements. The Administration is pursuing this mission through two general methods. First, the Trump EPA is imposing a static interpretation of the statutory text to curtail its overall power to regulate.¹²⁸ This strategy interprets the statute in a narrow way, allowing the EPA to ignore current science and technological capabilities, and shielding it from the obligation to effectively mitigate harmful air pollution. Second, the EPA is increasing its use of disaggregation of air pollution, pollution sources, and regulatory benefits in order to find that further regulation is unwarranted or to extend and delay the regulatory process.¹²⁹ By arbitrarily separating the various aspects of air-pollution control, the Agency attenuates its regulatory authority to justify its own deregulation. The following four regulatory developments exemplify the Trump Administration's efforts to counter a progressive reading of the statute and integrate these longer-term deregulatory strategies into CAA rulemaking. In two of the relevant rollbacks, the EPA has acknowledged that its proposed changes would have little impact on emissions levels, begging the question of why the Agency would pursue such rollbacks if not for the broader agenda of novel legal interpretations that would unravel its regulatory authority.¹³⁰

A. *The Affordable Clean Energy Rule*

The EPA's legal justification for repealing the Obama Administration's Clean Power Plan and promulgating the Affordable Clean Energy Rule (ACE) relies on a static interpretation of the CAA that bars the EPA from taking account of the realities of the electricity grid.¹³¹ In the final rules repealing the Clean Power Plan and promulgating ACE, the EPA interprets the standard of performance that applies throughout CAA § 111(d)—the “best system of emissions reduction”—as encompassing only site-specific pollution controls for power plant emissions.¹³² This ignores the realities of power plant operations. In the Clean Power Plan, the EPA used a robust factual record to determine that the best system of emission reduction for coal- and natural-gas-fired power plants included generation shifting from

128. JOSEPH GOFFMAN & CAITLIN MCCOY, EPA'S HOUSE OF CARDS: THE AFFORDABLE CLEAN ENERGY RULE 10–11 (2019).

129. *See generally* Buzbee, *supra* note 95.

130. GOFFMAN & MCCOY, *supra* note 128, at 16.

131. *Id.* at 24.

132. Repeal of the Clean Power Plan; Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guidelines Implementing Regulations, 84 Fed. Reg. 32,520, 32,523 (July 8, 2019) (to be codified at 40 C.F.R. pt. 60).

coal-fired sources to natural-gas and renewable-energy sources, and from natural-gas-fired sources to renewable-energy sources.¹³³ Yet the Trump EPA's interpretation would prohibit the Agency from adopting this broader, more effective understanding of Section 111(a)(1) and (d) when determining the best system of emission reduction. The final rule states that "CAA section 111 unambiguously limits the [best system of emissions reduction] to those systems that can be put into operation *at* a building, structure, facility, or installation. Such systems include, for example, add-on controls (*e.g.*, scrubbers) and inherently lower-emitting processes/practices/designs."¹³⁴ The rule does not include shifting power generation from higher- to lower-emitting pollution sources, notwithstanding that generation-shifting is a mainstay of power plants' compliance with a number of other pollution-control programs. ACE also decreases both implementation flexibility for states and compliance flexibility for pollution sources by prohibiting reliance on any but the narrow menu of options listed in the rule.¹³⁵

Rather than interpreting the CAA's broad language as providing the EPA with the tools to adequately curb coal-fired power plant emissions, the Trump Administration adopts a statutory interpretation that turns Section 111 into a self-contradicting provision: after following the CAA's requirement to identify the full set of options for reducing emissions, the EPA must select only the least effective options. The EPA's interpretation curtails its own and states' authority to issue guidelines and set emissions standards that reflect the Agency's thorough assessment of how power plants operate in determining the best system of emission reduction. That, in turn, takes away the Agency's capacity to regulate effectively. This process is counter to a progressive reading of the Act, which would compel the EPA to fully examine the changing circumstances and implement the statutory provision accordingly.

In contrast to the Clean Power Plan, ACE appears to serve a purpose unrelated to the CAA's emissions-reduction purpose. Indeed, the EPA's analysis shows that ACE will achieve virtually no reductions

133. Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,661, 64,665 (Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60) ("The result of our following Congress' recognition of the interdependent operation of [electric generating units] within an interconnected grid is the incorporation in the [Best System of Emissions Reduction] of measures, such as shifting generation to lower-emitting [natural gas combined cycle] units and increased use of [renewable energy], that rely on current interdependent operation of [electric generating units].").

134. Repeal of the Clean Power Plan, 84 Fed. Reg. at 32,524.

135. See GOFFMAN & MCCOY, *supra* note 128.

in carbon dioxide emissions.¹³⁶ In repealing the Clean Power Plan, the EPA relies entirely on its claim that the relevant language in CAA § 111 is unambiguous.¹³⁷ Should the EPA prevail on this argument in litigation challenging the rule, it will establish a precedent barring future administrations from reinterpreting Section 111 more broadly.¹³⁸ This appears to be the EPA's ultimate goal, and the Agency is taking an avoidable litigation risk to achieve it.

Unlike the Trump EPA, agencies often seek deference from courts for reasonable interpretations of their statutes, rather than advancing solely the argument that a statute is unambiguously clear. The framework for seeking judicial deference was established in *Chevron U.S.A., Inc. v. Natural Resources Defense Council*.¹³⁹ Following *Chevron*, courts use a two-step process to determine whether to uphold an agency's statutory interpretation. The first step is to determine whether "Congress has directly spoken to the precise question at issue." If it has, and the agency's definition "give[s] effect to the unambiguously expressed intent of Congress,"¹⁴⁰ then the court will defer to the agency's interpretation. If the statute is ambiguous, then courts proceed to step two, where they will defer to the agency's interpretation if it is "a permissible construction of the statute."¹⁴¹ Step two is more favorable for agencies, as it requires the court to ask only whether the interpretation is reasonable. The Trump Administration, however, has offered no *Chevron*-step-two argument in ACE. Instead, the EPA states:

The definition of 'standard of performance,' and the scope of the 'best system of emission reduction' contained within, confers considerable discretion on the EPA to interpret the statute and make reasonable policy choices pursuant to *Chevron* step two as to what is the best system to reduce emissions of a particular pollutant from a particular type of source. However, by making

136. OFFICE OF AIR QUALITY PLANNING & STANDARDS, EPA, REGULATORY IMPACT ANALYSIS FOR THE REPEAL OF THE CLEAN POWER PLAN, AND THE EMISSION GUIDELINES FOR GREENHOUSE GAS EMISSIONS FROM EXISTING ELECTRIC UTILITY GENERATING UNITS 3–11 (2019) (estimating less than a 1% reduction in carbon-dioxide emissions).

137. Repeal of the Clean Power Plan, 84 Fed. Reg. at 32,524, 32,529, 32,570.

138. *See* National Cable & Telecommunications Ass'n v. Brand X, 545 U.S. 967, 982 (2005) ("A court's prior judicial construction of a statute trumps an agency construction otherwise entitled to *Chevron* deference only if the prior court decision holds that its construction follows from the unambiguous terms of the statute and thus leaves no room for agency discretion.").

139. 467 U.S. 837 (1984). An argument that the statute is unambiguous need not be considered under the *Chevron* framework.

140. *Id.* at 842–43.

141. *Id.* at 843.

clear that the ‘application’ of the [best system of emissions reduction] must be to the source, *Congress spoke directly in Chevron step one terms to the question of whether the [best system of emissions reduction] may contain measures other than those that can be put into operation at a particular source: It may not.* The approach to the [best system of emissions reduction] in the [Clean Power Plan] is thus unlawful and the [Clean Power Plan] must be repealed.¹⁴²

Given the breadth of “best system of emissions reduction,” the fact that standards of performance can be defined in a variety of ways, and the flexibility of the state–federal partnership structure of Section 111(d), the EPA took a legal risk by insisting that the applicable statutory language is unambiguous. It could have mitigated that risk by offering an additional argument that the Agency’s interpretation was reasonable and therefore entitled to the court’s deference under the *Chevron* framework even if the court concluded the statute was ambiguous.¹⁴³ The D.C. Circuit will hear the pending challenges to the repeal of the Clean Power Plan and ACE. Unlike other federal circuit courts, which will uphold agency interpretations if they infer that they are reasonable, the D.C. Circuit tends to afford deference to agencies only when they explicitly make a *Chevron*-step-two argument to supplement their claims that the statute is unambiguous.¹⁴⁴

EPA’s foregoing a step-two argument suggests that it is willing to risk the court remanding both the repeal of the Clean Power Plan and ACE for the chance to secure a binding judicial decision restricting the Agency’s legal authority.¹⁴⁵ If the EPA were to prevail against a challenge only under a *Chevron*-step-two argument, a future administration could reinterpret the statute to encompass a broader type of performance standards and defend that interpretation as a permissible alternative reading of the statute. If the EPA wins with an argument that the statute is unambiguous, however, a future administration would be precluded from interpreting the statute more broadly or from arguing in litigation that the statutory language is ambiguous. The EPA adopted a narrow interpretation of the statute not just for the purpose of rolling back a single Obama Administration rule, but also,

142. Repeal of the Clean Power Plan, 84 Fed. Reg. at 32,532 (emphasis added).

143. For a longer analysis of the EPA’s legal strategy in ACE, and its shortcomings given the D.C. Circuit’s approach to *Chevron* review, see GOFFMAN & MCCOY, *supra* note 128. See generally Buzbee, *supra* note 95, at 1562 (“[T]he self-constraining agency that relies on a statutory-abnegation claim heightens risks of judicial reversal and also limits its future flexibility.”).

144. See GOFFMAN & MCCOY, *supra* note 128, at 6–7.

145. See *id.* at 8.

it seems, to garner a lasting restriction on the EPA's power to regulate carbon dioxide emissions from coal-fired power plants.

B. Withdrawal of California's Waiver for Automotive Emissions Standards

In 2019, the EPA revoked California's waiver to enforce the state's vehicle-emissions standards by yielding regulatory authority to another agency and, in the alternative, adopting a narrow interpretation of the CAA that separates conventional pollutants and greenhouse gases and defies the Act's technology-innovation imperative.¹⁴⁶ The CAA establishes a national program to set emissions standards for motor vehicles, generally preempting the states' rights to set state-specific standards.¹⁴⁷ Section 209(b)(1), however, permits California to request a preemption waiver from the EPA to set more stringent vehicle emissions standards,¹⁴⁸ and Section 177 allows other states to adopt California's standards approved under the waiver provision.¹⁴⁹ The statute creates a presumption for granting California a waiver, as Congress explicitly stated that the EPA "shall . . . waive application of this section" unless it makes one of three findings to deny a waiver.¹⁵⁰ One of those findings is that California "does not need such State standards to meet compelling and extraordinary conditions."¹⁵¹

In an unprecedented action, the Trump EPA withdrew the waiver it previously granted to California for the regulation of greenhouse-gas emissions and its zero-emissions-vehicle (ZEV) program.¹⁵² The EPA included two alternative justifications for this action: (1) that, per a determination made by the National Highway Traffic Safety

146. *Trump Administration Announces One National Program Rule on Federal Preemption of State Fuel Economy Standards*, EPA (Sept. 19, 2019), <https://www.epa.gov/newsreleases/trump-administration-announces-one-national-program-rule-federal-preemption-state-fuel> [<https://perma.cc/K98X-C8R8>].

147. Clean Air Act §§ 202(a)(1), 209(a), 42 U.S.C. §§ 7521, 7543 (2018).

148. *Id.* § 209(b)(1).

149. *Id.* § 177.

150. *Id.* § 209(b)(1) ("No such waiver shall be granted if the Administrator finds that—(A) the determination of the State is arbitrary and capricious, (B) such State does not need such State standards to meet compelling and extraordinary conditions, or (C) such State standards and accompanying enforcement procedures are not consistent with [§ 202(a)].").

151. *Id.* § 209(b)(1)(B).

152. Juliet Eilperin & Brandy Dennis, *Trump Administration to Revoke California's Power to Set Stricter Auto Emissions Standards*, WASH. POST (Sept. 17, 2019, 9:44 PM), https://www.washingtonpost.com/climate-environment/trump-administration-to-revoke-californias-power-to-set-stricter-auto-emissions-standards/2019/09/17/79af2ee0-d97b-11e9-a688-303693fb4b0b_story.html [<https://perma.cc/RD6P-QVMN>].

Administration (NHTSA), the standards were preempted by the Energy Policy and Conservation Act (EPCA), which governs fuel economy standards;¹⁵³ and (2) that CAA § 209(b)(1)(B), as the EPA now interprets it, does not apply to greenhouse gases because California's standards are not needed to meet extraordinary conditions.¹⁵⁴

The EPA ceded its air-quality-related authority by noting the NHTSA's determination that EPCA preempts California's tailpipe-emissions regulations regardless of the prerogative afforded the state under the CAA. The NHTSA establishes nationwide fuel-economy standards for motor vehicles under EPCA, which preempts state and local laws that are "related to fuel economy standards."¹⁵⁵ Because automakers generally comply with lower carbon-dioxide-emissions limits by increasing fuel economy, the NHTSA concluded that California's greenhouse-gas-emission standards are "related to fuel economy standards" and thus preempted by EPCA.¹⁵⁶ The EPA adopted the NHTSA's reasoning and relied on its preemption determination as an independent basis to withdraw California's waiver¹⁵⁷:

Considering that California cannot enforce standards that are void *ab initio*, even assuming *arguendo* that there existed a valid grant of waiver under CAA section 209(b), [the] NHTSA's determination renders [the] EPA's prior grant of a waiver for those aspects of California's regulations that EPCA preempts invalid, null, and void . . . [the] EPA hereby withdraws the prior grant of a waiver on this basis.¹⁵⁸

The EPA departed from precedent and abandoned its CAA obligations and authority under Section 209 without undertaking the analysis Congress mandated.¹⁵⁹ In contrast to the EPA's interpretation in ACE to narrow its authority, here the Agency abdicated its authority entirely. The result is to stymie the continual development and deployment of innovative technology, which is one of the CAA's

153. The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program, 84 Fed. Reg. 51,310, 51,338 (Sept. 27, 2019) (to be codified at 40 C.F.R. pts. 85 and 86).

154. *Id.* at 51,328.

155. 49 U.S.C. § 32919(a) (2018); *see also* SAFE Vehicles Rule Part One, 84 Fed. Reg. at 51,312 (explaining the NHTSA's implementation of the EPCA).

156. SAFE Vehicles Rule Part One, 84 Fed. Reg. at 51,313.

157. *Id.* at 51,314.

158. *Id.* at 51,338.

159. *See id.* at 51,339–44 (interpreting the text of § 209 to not require the in-depth analysis that Congress demanded).

foundational imperatives. By revoking California’s waiver, the EPA is impeding the progress of advanced automotive technology that eliminates greenhouse-gas emissions and pollutant emissions that directly harm air quality and public health. As the Supreme Court noted in *Massachusetts v. EPA*,¹⁶⁰ just because the Department of Transportation “sets mileage standards in no way licenses [the] EPA to shirk its environmental responsibilities. [The] EPA has been charged with protecting the public’s ‘health’ and ‘welfare.’”¹⁶¹ In its 2019 revocation of California’s waiver, the EPA does little to explain why the it and the NHTSA cannot both administer their respective obligations while avoiding inconsistency. The EPA also does little to explain why it accepts the NHTSA’s position on the ZEV component of California’s program, which has the greatest impact on local air quality.

In the alternative, the Trump EPA interprets CAA §§ 209(b)(1)(B) and 177 as narrowly applying only to criteria pollutants,¹⁶² not greenhouse gases. The EPA first determines that “it is appropriate to review California’s [greenhouse gas] standards separately from the remainder of the State’s motor vehicle emission control program for purposes of CAA section 209(b)(1)(B).”¹⁶³ By separating greenhouse gases from conventional pollutant emissions, the EPA positions itself to defend its conclusion that the statute does not authorize California to regulate greenhouse gases. The EPA then concludes that “[i]n order for a waiver request to pass muster under CAA section 209(b)(1)(B) . . . a particularized, state-specific nexus must exist between sources of pollutants, resulting pollution, and impacts of that pollution.”¹⁶⁴ The EPA’s new interpretation narrows the CAA’s broad language of “compelling and extraordinary conditions” to restrict it from applying to global pollutants like greenhouse gases, regardless of their unique impact on California. In contrast, in 2013, the EPA concluded that “[t]his single [Advanced Clean Cars] program combines the control of smog-causing pollutants and [greenhouse gas] emissions into a coordinated package of amendments and requirements . . . to address near and long term smog issues within California and identified

160. 549 U.S. 497 (2007).

161. *Id.* at 532.

162. Criteria pollutants are the six pervasive air pollutants regulated under the NAAQS program: carbon monoxide, ground level ozone, nitrogen dioxide, sulfur dioxide, particulate matter, and lead. *NAAQS Table*, EPA, <https://www.epa.gov/criteria-air-pollutants/naaqs-table> [<https://perma.cc/2TSB-TEJW>] (last updated Dec. 20, 2016).

163. SAFE Vehicles Rule Part One, 84 Fed. Reg. at 51,347.

164. *Id.* at 51,348.

[greenhouse gas] emission reduction goals.”¹⁶⁵ Trump’s EPA is choosing to ignore the connections between greenhouse gas emissions, climate change, and California’s air-quality challenges. The EPA now separates conventional pollutants and greenhouse gases, and reads Section 209(b)(1)(B) in a static manner that defeats the CAA’s technology-innovation imperative, which is equally applicable to greenhouse gas and conventional pollutant emissions under the California’s ZEV program.

The Trump EPA goes one step further and constrains the technology-dissemination aspect of Section 177 by finding that other states cannot use that section to adopt California’s greenhouse gas standards or ZEV programs:

[T]he text, placement in Title I, and relevant legislative history are all indicative that CAA section 177 is in fact intended for NAAQS attainment planning and not to address global air pollution. . . . This construct also comports with our reading of CAA section 209(b)(1)(B) as limiting applicability of CAA section 209(b) waiver authority to state programs that address pollutants that affect local or regional air quality and not those relating to global air pollution like GHGs.¹⁶⁶

By making this determination, the EPA is blocking the dissemination of effective pollution-control technology, including innovation through the ZEV program, which addresses both NAAQS attainment and climate pollution. The Agency is frustrating the role that Congress intended California and the states to play. The EPA’s definitive statement is indicative of its new perspective on the CAA, alleging that it neither was written to address unknown challenges like climate change nor does it compel the Agency to undertake the most effective means of improving air quality. By engineering an interpretation that ignores the local impact and sources of greenhouse gas emissions, the EPA once again constrains the Agency’s and states’ authority to act under the CAA.

C. Reversal of the Appropriate and Necessary Finding for the Mercury and Air Toxics Standards

The Trump EPA’s reversal of the Agency’s previous finding—that it was “appropriate and necessary” to regulate mercury emissions from

165. California State Motor Vehicle Pollution Control Standards; Notice of Decision Granting a Waiver of Clean Air Act Preemption for California’s Advanced Clean Car Program and a Within the Scope Confirmation for California’s Zero Emission Vehicle Amendments for 2017 and Earlier Model Years, 78 Fed. Reg. 2112, 2114 (Jan. 9, 2013).

166. SAFE Vehicles Rule Part One, 84 Fed. Reg. at 51,351.

power plants¹⁶⁷—reads into the CAA a limitation on the Agency’s authority and something akin to a loophole in the CAA’s mandate to control mercury and other hazardous air pollutants (HAPs) from power plants. Section 112(n)(1)(A) provides that the EPA must set pollution-control standards for power plant HAP emissions if the Agency finds it “appropriate and necessary” to do so following a study of “the hazards to public health reasonably anticipated to occur” from such emissions after implementation of other CAA pollution-control programs.¹⁶⁸ In 2012, the EPA issued a final rule finding that it was appropriate and necessary to regulate HAP emissions from power plants and establishing pollution-control standards, known as the Mercury and Air Toxic Standards (MATS).¹⁶⁹ In the case challenging the final rule, *Michigan v. EPA*, the Supreme Court considered whether it was reasonable for the EPA to not consider costs when making its appropriate-and-necessary determination.¹⁷⁰ While the Court held that the Agency must consider the costs of regulation as part of its “appropriate” determination, it deferred to the EPA to decide the proper way to consider costs.¹⁷¹ The Court did not mandate that the EPA conduct a formal cost–benefit analysis, and the Court did not bar an appropriate-and-necessary finding if the EPA found that the costs of regulation outweighed the benefits.¹⁷² The EPA then issued a supplemental finding in 2016, in which it considered costs and

167. The EPA originally issued an “appropriate and necessary” finding in 2000, rescinded it in 2005, reinstated it in 2012, and finally issued a supplemental finding in 2016, following the Supreme Court’s requirement in *Michigan v. EPA*, 135 S. Ct. 2699, 2711 (2015), that the Agency consider the costs of regulating as part of the “appropriate” determination.

168. Clean Air Act § 112(n)(1)(A).

169. National Emissions Standards for Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units, 77 Fed. Reg. 9304 (Feb. 16, 2012) (to be codified at 40 C.F.R. pts. 60 and 63).

170. 135 S. Ct. 2699, 2699 (2015).

171. *Id.* at 2711 (“The Agency must consider cost—including, most importantly, cost of compliance—before deciding whether regulation is appropriate and necessary. We need not and do not hold that the law unambiguously required the Agency, when making this preliminary estimate, to conduct a formal cost-benefit analysis in which each advantage and disadvantage is assigned a monetary value. It will be up to the Agency to decide (as always, within the limits of reasonable interpretation) how to account for cost.”).

172. *Id.*

confirmed the Agency's 2012 appropriate-and-necessary determination.¹⁷³

In its 2016 supplemental finding, the EPA integrated the provisions of Section 112(n)(1)(A) and the Supreme Court's holding in *Michigan* to carry out Congress's intention that HAPs emitted by power plants be substantially reduced.¹⁷⁴ The EPA explained its preferred approach to considering costs, stating that cost is "one of several factors that must be considered and the statutory text [did] not support a conclusion that cost should be the predominant or overriding factor."¹⁷⁵ The EPA did not rely on a formal benefit–cost analysis because of Section 112's objectives, emphasis on the required studies, "Congress'[s] determination that HAP emissions are inherently harmful, and the instruction from Congress to protect the most sensitive populations from those harms."¹⁷⁶ The EPA affirmed its 2012 appropriate-and-necessary finding, because mercury and other HAPs "pose hazards to public health" and "because of [their] magnitude . . . environmental effects . . . and the availability of controls to reduce HAP emissions from [power plants]."¹⁷⁷ By basing its conclusion on the emissions' hazardous nature, EPA aligned its action with Section 112's mandate. Finally, the EPA concluded that it was "necessary" to regulate because the hazards to public health from power plant HAP emissions were reasonably anticipated to remain after the implementation of other CAA provisions.¹⁷⁸

Justice Kagan anticipated this approach in her dissent in *Michigan v. EPA*, where she explained that Congress crafted Section 112's appropriate-and-necessary-determination requirement "because the 1990 amendments established a separate program to control power plant emissions contributing to acid rain, and many thought that just by complying with those requirements, plants might reduce their emissions of hazardous air pollutants to acceptable levels."¹⁷⁹ As Justice Kagan writes, "[t]hat prospect counseled a 'wait and see' approach, under which [the] EPA would give the Act's acid rain provisions a chance to achieve that side benefit before imposing any further

173. Supplemental Finding That It Is Appropriate and Necessary to Regulate Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units, 81 Fed. Reg. 24,420 (Apr. 25, 2016) (to be codified at 40 C.F.R. pt. 63).

174. *Id.* at 24,420–21.

175. *Id.* at 24,424 (presenting the Agency's view of the statutory scheme of which § 112(n)(1)(A) is a part).

176. *Id.*

177. *Id.* at 24,423.

178. *Id.*

179. 135 S. Ct. 2699, 2715 (2015) (Kagan, J., dissenting).

regulation.”¹⁸⁰ She concluded that, following an appropriate-and-necessary determination, which was based on the emissions study required by Section 112(n)(1)(A), the CAA dictates that the “EPA is to regulate power plants as it does every other stationary source.”¹⁸¹

The EPA’s 2020 reversal, in contrast, adopts reasoning that treats that imperative as optional, subject to the EPA’s application of a cost–benefit analysis. EPA extends the holding in *Michigan* by narrowly comparing the direct cost of compliance with the monetized benefits from reductions in HAPs (minimizing all other real, but generally non-monetizable benefits), and concludes that it is not appropriate and necessary to regulate power plants under CAA §112(d).¹⁸² In so doing, the EPA elevates the importance of cost and effectively erases from Section 112(n)(1)(A) the express mandate to examine and to account for the public health threat posed by power plant HAP. Neither Section 112(n)(1)(A) nor *Michigan* mandates that elevation; and, as Justice Kagan’s dissent suggests, the EPA does not have that authority. By combining a determination that Section 112(n)(1)(A) gives the EPA the option *not* to regulate with an appropriate-and-necessary finding based solely on a narrow cost–benefit comparison, the EPA essentially concludes that the CAA allows the Agency to not regulate power plant emissions under Section 112, even if it concludes that “hazards to public health [are] reasonably anticipated to occur as a result of emissions by [power plants]”—the original finding Congress required in the CAA.¹⁸³

In the final rule, the Trump EPA downplays the role of Congressional intent in carrying out the appropriate and necessary finding. In response to comments received on the proposed rule, the EPA states, “[w]e do not agree . . . that general congressional concern

180. *Id.* at 2715–16.

181. *Id.* at 2716.

182. See National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review, 85 Fed. Reg. 31,286, 31,286 (May 22, 2020).

183. Clean Air Act § 112(n)(1)(A), 42 U.S.C. § 7412(n)(1)(A) (2018) (“The Administrator shall perform a study of the hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units . . . after imposition of the requirements of this chapter. . . . The Administrator shall regulate electric utility steam generating units under this section, if the Administrator finds such regulation is appropriate and necessary after considering the results of the study required by this subparagraph.”); *cf.* National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review, 84 Fed. Reg. 2670, 2676 (proposed Feb. 7, 2019) (to be codified at 40 C.F.R. pt. 63) (“In this action, the EPA proposes to conclude that it is not appropriate and necessary to regulate HAP[s] from EGUs under CAA section 112 because the costs of such regulation grossly outweigh the HAP benefits.”).

about the toxicity of HAPs overrides the specific instruction given to the Administrator in CAA section 112(n)(1)(A) to make a determination about whether regulation of [power plants] in particular is ‘appropriate and necessary.’¹⁸⁴ The EPA supports this argument by relying on Congress’s intent that the EPA treat power plants differently, given the acid rain provisions.¹⁸⁵ But that argument ignores the tight nexus between the results of the EPA’s study of hazardous air emissions and the appropriate and necessary determination that Congress created in Section 112(n)(1)(A).

Additionally, the 2020 finding rejects the standard approach to cost–benefit analysis of calculating the benefits resulting from all pollution reductions. This practice is widely supported by economists and has been long endorsed by the Office of Management and Budget and the EPA itself.¹⁸⁶ Instead, the EPA considers mainly the benefits of reducing HAPs and down-weights important co-benefits, including reducing particulate matter and sulfur dioxide.¹⁸⁷ In the final rule, the EPA argues that the CAA directs the EPA to focus on the benefits of reducing HAPs and that OMB’s guidance cannot supersede this statutory mandate.¹⁸⁸ But the CAA’s text does not support this conclusion. The standard approach of accounting for all benefits aligns with the scientific understanding of the health impacts of air pollution and the CAA’s progressive scientific imperatives.¹⁸⁹ By abandoning the

184. Reconsideration of Supplemental Finding, 85 Fed. Reg. at 31,293.

185. *Id.* at 31,293–94 (“As the U.S. Supreme Court admonished the EPA in Michigan, the text and structure of CAA section 112, and 112(n)(1)(A) in particular, evince Congressional design to approach the question whether to regulate EGUs differently than other source categories.”).

186. See OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, CIRCULAR A-4, at 26 (2003) (“Your analysis should look beyond the direct benefits and direct costs of your rule-making and consider any important ancillary benefits and countervailing risks.”).

187. Reconsideration of Supplemental Finding, 85 Fed. Reg. at 31,301 (“CAA section 112(n)(1)(A) requires a threshold determination of whether any regulation of EGUs under CAA section 112 is ‘appropriate and necessary.’ The EPA believes that this inquiry must be focused primarily on the risks posed by the pollutants targeted by CAA section 112, *i.e.*, HAP emissions. [...] While the Agency acknowledges that PM co-benefits are substantial, the Agency cannot rely on PM co-benefits to supplant the primary factors Congress directed the Administrator to consider.”).

188. *Id.* at 31,301 (“How costs are to be considered in making the congressionally-directed CAA section 112(n)(1)(A) determination, however, is not governed independent from statutory requirements, by preexisting OMB or EPA guidelines, nor could it be.”).

189. As one commentator, Kathy Fallon Lambert, explains:

If the goal is to be protective of human health and ecosystem health, you must consider the fact that we breathe air that

Agency's and the Executive Office of the President's long-standing cost-benefit methodology, the EPA aggravates its departure from the CAA's imperatives.

The EPA also disregards the CAA's emphasis on scientific progress by failing to update the value it attributes to reductions in mercury emissions.¹⁹⁰ In its cost-benefit analysis, the EPA uses the same benefits value for mercury emissions reductions that it used in 2011, ignoring significant scientific developments showing that the benefits are likely magnitudes larger than the EPA estimated in nine years ago.¹⁹¹ The final rule improperly alleges that the Agency must use the now-outdated information supporting the issuance of MATS to justify its current action.¹⁹² This assertion explicitly contradicts the EPA's mandate to account for advances in science.

Furthermore, the EPA's determination that it is not appropriate and necessary to regulate power plant HAP emissions under CAA § 112 could ultimately result in the removal of the current emissions

integrates all of these pollutants. We don't get to breathe air that just responds to one policy at a time, or reflects one pollutant at a time. Air integrates all of these. That's what we breathe, and that's what the environment receives. When we consider how to analyze a particular policy path or trajectory or outcome, it's logical . . . to consider the full range of pollutants as best we're able.

Episode 13: Joe and Kathy Fallon Lambert on MATS/PPP/ACE and Public Health, CLEANLAW: HARV. ENVTL. & ENERGY L. (Mar. 7, 2019), at 46:09, <https://soundcloud.com/user-995691545/joe-and-kathy-fallon-lambert-on-matscppace-and-public-health/s-YASTo> [<https://perma.cc/Z9MR-SC9Z>].

190. Reconsideration of Supplemental Finding and Residual Risk and Technology Review, 85 Fed. Reg. at 31,305.

191. See, e.g., Elsie M. Sunderland et al., *Benefits of Regulating Hazardous Air Pollutants from Coal and Oil-Fired Utilities in the United States*, 50 ENVTL. SCIENCE & TECH. 2117, 2117 (2016) (“[W]e elaborate upon three key points: (1) Recent research demonstrates that quantified societal benefits associated with declines in mercury deposition attributable to implementation of MATS are much larger than the amount estimated by EPA in 2011. (2) As-yet-unquantified benefits to human health and wildlife from reductions in [power plant] mercury emissions are substantial. (3) Contributions of [power plants] to locally deposited mercury have been underestimated by EPA's regulatory assessment.”); see also *Mercury Matters 2018: A Science Brief for Journalists and Policymakers*, HARV. UNIV. CTR. FOR THE ENV'T (Dec. 1, 2018), <https://environment.harvard.edu/news/general/mercury-matters-2018-science-brief-journalists-and-policymakers> [<https://perma.cc/A8AL-9PX2>] (“The societal costs of neurocognitive deficits associated with methylmercury exposure in the U.S. were estimated in 2017 to be approximately \$4.8 billion per year.”).

192. Reconsideration of Supplemental Finding and Residual Risk and Technology Review, 85 Fed. Reg. at 31,305.

standards.¹⁹³ The withdrawal makes the rulemaking vulnerable to legal challenges.¹⁹⁴ One month after the EPA published the final rule reversing the appropriate and necessary finding, a coal mining company filed a lawsuit challenging the validity of MATS.¹⁹⁵ The company's complaint is primarily based on the EPA's reversal of the appropriate and necessary finding.¹⁹⁶

As in ACE, the EPA appears aimed at undercutting its CAA authority by asserting a specific, new legal interpretation and repudiating an earlier interpretation of the same provision. Here it goes further, potentially encumbering what should be its commitment to incorporating the latest science by not only applying an out-of-the-mainstream methodology to cost-benefit analysis but also eschewing the use of up-to-date scientific information. The proposal exhibits the EPA's determination to avoid the overriding imperatives of the CAA by finding new limitations on its power to act.

D. New Source Performance Standards for the Oil and Gas Sector

The Trump EPA is making it more difficult for the Agency to regulate methane emissions under the CAA. Section 111(b) of the CAA directs the EPA to establish New Source Performance Standards (NSPS) for listed categories of new or modified stationary pollution sources. To list a source category under Section 111, the EPA Administrator must determine that emissions from the source category "cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare" (known as a significant contribution finding).¹⁹⁷ Once NSPS are set for emissions from a source category, the EPA is obligated to issue guidelines to address emissions of the pollutant in the same source category if the

193. EPA sought comment in the proposed withdrawal on whether the agency has the authority to or is obligated to rescind the MATS rule if it withdraws the finding. National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding and Residual Risk and Technology Review, 84 Fed. Reg. 2670, 2679 (proposed Feb. 7, 2019) (Feb. 7, 2019). EPA did not determine that it had this authority or withdraw MATS in the final rule.

194. Joseph Goffman, *Rolling Back the Mercury and Air Toxic Standards: Proposed Withdrawal of "Appropriate and Necessary"*, HARV. L. SCH.: ENVTL. & ENERGY L. PROGRAM (Mar. 14, 2019), <http://eelp.law.harvard.edu/wp-content/uploads/MATS-Analysis-Goffman-final.pdf> [<https://perma.cc/92VE-XLP3>].

195. *Westmoreland Mining Holdings v. EPA*, No. 20-1160 (D.C. Cir., May 22, 2020).

196. *Id.*

197. Clean Air Act § 111(b)(1)(A), 42 U.S.C. § 7411(b)(1)(A) (2018).

pollutant is not subject to regulation by other CAA provisions.¹⁹⁸ This relationship reflects Congress's characteristic approach in the CAA to address air-pollution challenges in a comprehensive manner.

In 2016, the EPA took two actions to address methane emissions from the oil and gas sector. First, the Agency set NSPS for methane emissions from the production, processing, transmission, and storage segments within the already-listed "crude oil and natural gas production" source category.¹⁹⁹ Second, the EPA issued in 2016 an Information Collection Request designed to collect the data needed to develop emissions guidelines under subsection (d) for methane emissions from the oil and gas sector.²⁰⁰

The Trump EPA, in turn, has deployed various strategies aimed at attenuating the EPA's ability to regulate methane emissions by failing to acquire the necessary information and proposing additional prerequisites for promulgating standards for sources within the oil and natural gas sector. In 2017, the EPA cancelled the Information Collection Request.²⁰¹ In 2019, the Agency published a proposed rule to repeal NSPS for the transmission and storage segment, which the Agency had previously regulated within the "crude oil and natural gas production" source category, and to rescind methane regulations for the remaining sources within the oil and gas sector.²⁰² The EPA also solicited comments on a new interpretation of the CAA that would require it to make a pollutant-specific, as opposed to source-category-wide, significant-contribution finding before regulating emissions of additional pollutants.²⁰³ Each of these three proposals individually, and potentially in combination, would defy the logic of Section 111's comprehensive structure, which addresses all pollution from a category of sources, both new and existing. The proposals would also increase methane and other HAP emissions. The EPA estimates that methane

198. *Id.* § 111(d)(1).

199. Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, 81 Fed. Reg. 35,824, 35,841 (June 3, 2016) (to be codified at 40 C.F.R. pt. 60).

200. *See* EPA, INFORMATION COLLECTION EFFORT FOR OIL AND GAS FACILITIES 2–3 (2016).

201. *See* Notice Regarding Withdrawal of Obligation to Submit Information, 82 Fed. Reg. 12817 (Mar. 7, 2017).

202. Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review, 84 Fed. Reg. 50,244, 50,257, 50,259 (proposed Sept. 24, 2019) (to be codified at 40 C.F.R. pt. 60).

203. *Id.* at 50,261.

emissions between 2019 and 2025 will increase by about 350,000 to 370,000 short tons under its proposed rule.²⁰⁴

The EPA defends its proposal to rescind NSPS for the transmission and storage segment by claiming that these segments do not fall within the source category and can only be regulated after the Agency makes a separate finding for those segments as a distinct source category. By restricting the EPA's authority to regulate additional sources of emissions within a listed source category, the EPA is encumbering its ability to regulate those sources at all. Many individual segments may be found to not contribute significantly to air pollution when not considered as part of the larger industrial sector.

When the EPA established standards for the transmission and storage segment, it found that crude oil and natural gas production "broadly cover[ed]" this segment of the industry.²⁰⁵ Although the EPA concluded that the Agency had the legal authority without issuing a significant-contribution finding, it still included such a finding, determining that the source category as a whole (oil and natural gas production, processing, transmission, and storage) "contributes significantly to air pollution that may reasonably be anticipated to endanger public health or welfare."²⁰⁶ The EPA is now proposing to find that this action was improper, arguing that the transportation and storage segment are "sufficiently distinct" from the larger source category and must be regulated as an independent source category.²⁰⁷ In the proposal, the EPA suggests that it "was required to make a finding that the *transmission and storage segment in and of itself* 'contributes significantly to air pollution . . . ' not simply that the source category . . . 'oil and natural gas production, processing, transmission, and storage' . . . 'contributes significantly.'"²⁰⁸ The EPA argues that this piecemeal approach is appropriate "because the natural gas that enters the transmission and storage segment has different composition and characteristics than the natural gas that enters the production and processing segments."²⁰⁹ Yet together, the four segments constitute a single-sectoral enterprise that encompasses the full array of equipment that brings the product from its underground residence

204. *Id.* at 50,277–78 (comparing emissions relative to two baselines; one that estimated an increase of 350,000 short tons, and the other that estimated an increase of 370,000 short tons).

205. Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, 81 Fed. Reg. 35,824, 35,833 (June 3, 2016) (to be codified at 40 C.F.R. pt. 60).

206. *Id.*

207. Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review, 84 Fed. Reg. at 50,257.

208. *Id.* (footnote omitted).

209. *Id.*

to the point of commercial transaction in a more or less continuous flow. The differences in the composition of the product, which by design differs as it is being processed, have no bearing on the question of whether the ensemble of equipment the source category comprises contributes significantly to air pollution.

The EPA's proposed interpretation of the statute would result in segmented regulations on a drawn out and procedurally challenging timeline that is contrary to Section 111's design and the fundamental comprehensive approach of the CAA. In its proposal, the EPA does not offer a finding related to the emissions from the transmission and storage segment; rather, it determines only that its previous rule was invalid. That determination brings the regulatory process to a halt at a point that leaves in place a residual set of incomplete regulations and emissions increases. The proposal's incompleteness indicates its underlying purpose to avoid regulating through arbitrary subcategorization.

The proposal introduces an additional element of regulatory delay and avoidance. The EPA is soliciting comments on whether the Agency should require a pollutant-specific, significant-contribution finding prior to establishing NSPS for each pollutant, notwithstanding well-established findings that the source category contributes significant levels of pollution overall.²¹⁰ As the EPA concedes in its proposal, in 2016, the Agency "asserted that CAA section 111 authorizes it to regulate a source category's emissions of an air pollutant without a pollutant-specific [significant contribution finding] as long as the EPA has a 'rational basis' for doing so."²¹¹ It then offers a variety of ill-founded reasons for how it may be reasonable to conclude the exact opposite.²¹² Although the proposed rule does not incorporate this transformation of the Agency's statutory interpretation, the EPA solicits comments and provides multiple pages of legal argument to support the proposition, suggesting that the Agency is seeking to bolster the record in favor of reaching this determination following public

210. *Id.* at 50,266.

211. *Id.* at 50,262.

212. *See, e.g., id.* at 50,266 ("CAA Section 111(b)(1)(A)'s [significant contribution finding] provision, when read in isolation, may appear to require a [significant contribution finding] for the source category as a prerequisite for listing the source category. However, should the EPA instead conclude that Congress could not have intended that the EPA promulgate NSPS without a pollutant-specific [significant contribution finding] in light of, among other considerations, (1) the fact that Congress adopted at the same time and subsequently amended at the same time similarly phrased CAA provisions that do contemplate a pollutant-specific finding prior to regulation, (2) the inherent vagueness of the rational basis approach, and (3) the indications in the legislative history that Congress did intend that the EPA make a pollutant-specific [significant contribution finding] under CAA section 111?").

comments on the proposed rule.²¹³ Much like the compartmentalization of the source category, enacting this change would, at a minimum, delay the EPA's regulations of harmful pollutants by requiring an extra step. In some instances, it could make it significantly more difficult for the Agency to regulate emissions of certain pollutants at all.

Finally, the EPA argues that methane regulations for new and modified sources under Section 111(b) are redundant, given the standards for volatile organic compounds (VOCs) because compliance with the latter will result in reductions in methane.²¹⁴ This masks the significant effect of the EPA's proposed rescission of methane regulations, which will be to delay indefinitely the regulation of methane emitted at much higher levels from existing sources.²¹⁵ Methane regulations for existing sources would not be redundant to the regulation of VOCs because VOCs are not covered by Section 111(d), which excludes pollutants from existing sources covered by other CAA provisions. In contrast, only under Section 111(d) does the EPA have the authority to set comprehensive guidelines for existing sources of methane.²¹⁶

In Section 111, Congress included two features characteristic of the CAA's overall approach of providing a comprehensive solution to pollution: authorizing regulation by source category based on the overall level of pollution it emits, and requiring the EPA to issue guidelines for pollution from existing sources once it sets pollution standards for new sources.²¹⁷ The EPA's proposal undermines these features and its own legal authority. By removing NSPS for methane, the EPA would remove the predicate for regulating existing sources of methane in the oil and gas sector. This operates in tandem with the EPA's solicitation of comments on requiring a pollutant-specific endangerment finding in place of its current authority to consider pollution from the sector as a whole. The proposal aggravates the damage it would do to Section 111's comprehensive pollution-control strategy by dividing the source category into covered and uncovered segments on the basis of an arbitrary, pretextual argument that bears little connection to how the sector operates.

213. *See id.* at 50,266–69.

214. *Id.* at 50,260–61.

215. *See id.* (“[T]he EPA has, to date, assumed that methane, if subjected to a standard of performance for new sources, would trigger the application of CAA section 111(d). Accordingly, given this assumption, the EPA recognizes that rescinding the applicability of the NSPS to methane emissions for the sources in the Crude Oil and Natural Gas Production source category that are currently covered by the NSPS will mean that existing sources of the same type in the source category will not be subject to regulation under CAA section 111(d).”).

216. *Id.* at 50,259.

217. Clean Air Act § 111, 42 U.S.C. § 7411 (2018).

Finally, the proposal ignores Section 111's technology-dissemination purpose. The proposal acknowledges that the EPA's position that methane standards are redundant to VOC standards reflects the performance of *existing* pollution-control technology, and that new technology applicable to methane emissions is being developed:

[T]he NSPS requirements as applied to VOCs will reduce methane in the same amounts as those requirements, as applied to methane, would as long as [optical gas imaging] with current levels of sensitivity to methane continue to be used. The EPA is aware that several new technologies are under development that would detect speciated fugitive emissions from oil and natural gas operations.²¹⁸

This admission is in stark contrast to the technology-promoting provisions of the CAA. Through its deregulation strategy, the EPA essentially abandons its role in technology diffusion, despite the potential for new technology that could further control emissions of a harmful pollutant. Such an action by the Agency is counter to its all-but-explicit CAA mandate.

CONCLUSION

What unites these four actions by the Trump EPA is not just that they roll back individual environmental protections and could result in emissions increases; they also each rely on a new legal interpretation that diminishes the EPA's regulatory authority under the CAA. Ultimately, the courts may uphold each of them as consistent with the CAA's meaning and intent. Currently, however, there are at least two reasons to question the EPA's intentions and to view its statutory interpretations as inconsistent with the CAA.

First, each new interpretation reverses or rejects the EPA's previous position on the same air-quality issue. Each offers a version of the CAA that is both ill-designed for solving the relevant problem and impervious to scientific, technological, and practical change. The Agency's repeal of the Clean Power Plan relies on simple textual analysis and reaches a conclusion that disempowers the EPA. The Agency denies itself the ability to engage in effective problem-solving that would account for the realities of the electricity grid. Similarly, its reversal of the MATS adequate-and-necessary finding distorts both Section 112(n)(1)(A) and the Supreme Court's holding in *Michigan v. EPA*, offering a logic that thwarts Congress's intent to reduce power-plant HAP emissions via regulation if compliance with other CAA provisions does not result in adequate reductions. To rescind

218. Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review, 84 Fed. Reg. at 50,260.

California's vehicle-emissions waiver, the EPA abdicated its CAA-based authority, and in the alternative, read Sections 209(b) and 177 as non-responsive to the current understanding of air pollutants. To defend its proposed amendments to the 2016 oil and gas NSPS, the EPA primarily relied on an irrelevant observation about the content of natural gas to disaggregate emissions and to avoid reducing emissions in a comprehensive manner.

Each of these new interpretations replaces an earlier one that understood the CAA and the individual statutory provisions in exactly the opposite way. Each previous interpretation prioritized successfully addressing an air-quality problem and discerning Congress's meaning and intent. Each responded to the language and construction of the relevant statutory provision, aligning them with the Act's overall structure and purpose. The EPA's success in developing the Cross-State Rule remains instructive. The Agency approached the rules that are now the target of the current reversals with the same imperative: adapting the CAA to the current realities and finding within its language the tools to adequately meet the air-quality challenge.

Second, since its beginning, the Trump Administration has prioritized deregulation as an end in itself. In early 2017, then-presidential advisor Steve Bannon promised to "deconstruct[] . . . the administrative state."²¹⁹ President Trump issued two executive orders delivering on the promise. One required that any new regulation be paired with the repeal of two existing regulations.²²⁰ The second, styled as promoting energy independence, directed the EPA to "review" the Clean Power Plan and the 2016 oil and gas NSPS as part of a policy of alleviating the "burden" on energy production.²²¹ The EPA has also taken steps to weaken the NAAQS review process by undercutting the review process's robust scientific foundation, which, following the express language of the CAA, has been a key driver of the EPA's ongoing regulatory agenda.²²² These actions are instrumental to the

219. See Max Fisher, *Stephen K. Bannon's CPAC Comments, Annotated and Explained*, N.Y. TIMES (Feb. 24, 2017), <https://www.nytimes.com/2017/02/24/us/politics/stephen-bannon-cpac-speech.html> [<https://perma.cc/6CHP-R2WT>].

220. Exec. Order No. 13,771, 82 Fed. Reg. 9339, 9339 (Jan. 30, 2017).

221. Exec. Order No. 13,783, 82 Fed. Reg. 16,093, 16,093 (Mar. 28, 2017).

222. See Laura Bloomer & Joseph Goffman, *The Legal Consequences of EPA's Disruption of the NAAQS Process*, HARV. L. SCH.: ENVTL. & ENERGY L. PROGRAM (Sept. 30, 2019), <http://eelp.law.harvard.edu/wp-content/uploads/Legal-Consequences-of-NAAQS-Changes.pdf> [<https://perma.cc/YSQ7-GMDZ>]. See generally *Episode 32: EPA Science Advisory Panel Changes with Gretchen Goldman and Laura Bloomer*, CLEANLAW: HARV. ENVTL. & ENERGY L. (Dec. 18, 2019), <https://soundcloud.com/user-995691545/epa-science-advisory-panel-changes-with-gretchen-goldman-and-laura-bloomer> [<https://perma.cc/T8EU-4RLH>] (discussing the EPA's recent approach to NAAQS).

EPA's deregulatory approach given the range of CAA provisions that are triggered by tightening the standards.

In this context, the EPA's four new legal interpretations emerge as instruments to achieve the Trump Administration's broader deregulatory agenda rather than efforts to perfect the EPA's understanding of the CAA. If each of these interpretations is confirmed, either as fixed precedent or a strong presumption, then the EPA's course will be redirected from that of the past several decades. At the very least, these interpretations reflect an agency that approaches its legal authorities as static rather than "progressive" and that works to find limitations in its mandates rather than imperatives to continually respond to ongoing threats to air quality, public health, and the environment.