DEFENDING OVERSTATEMENT: THE SYMBOLIC CLEAN AIR ACT AND CARBON DIOXIDE

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Observers often criticize the Clean Air Act for being the product of overzealous lawmakers who wrote a statute that sets unrealistic, unattainable regulatory goals. This Article argues instead that Congress chose consciously to include symbolic mandates in the Clean Air Act, a precommitment strategy designed to ensure that the Act would be respected by regulators and regulated entities alike. The author traces the roots and successes of this symbolism, arguing that it was implicitly upheld by the Supreme Court in 2001. The author then notes that EPA ignored the Clean Air Act's symbolic mandates in 2003, when EPA asserted that the Clean Air Act gives it no authority to regulate carbon dioxide emissions, a conclusion upheld by the U.S. Court of Appeals for the D.C. Circuit in 2005. The Article then discusses the importance of the Clean Air Act's symbolism to EPA's authority to address global warming. The author argues that the agency's disavowal of its power to regulate carbon dioxide is an example of the sort of agency foot-dragging that the statute's overstated mandates were designed to prevent. The Article concludes by elaborating on the framework for regulation of carbon dioxide by EPA that the Clean Air Act's symbolism requires.

I. INTRODUCTION

The Clean Air Act ("CAA") instructs EPA to do the impossible: to set standards strict enough to clean the air. According to the CAA, EPA must set air quality standards solely on the basis of health considerations, ignoring the costs of compliance. EPA may not invoke scientific complexity or uncertainty as reasons for delay or inaction. Auto makers must devise and install emissions controls that have yet to be invented. The states must implement EPA strictures on overly ambitious time tables. In the more than thirty-five years since the CAA was enacted, EPA, the states, and regulated parties have failed repeatedly to meet these mandates on time and as written.

These features of the CAA have been criticized for being "more symbolic than functional."[1] The mandates are symbolic in the sense that they set a lofty goal—the achievement of a risk-free environment—without explaining how the goal can be reached in practice.[2] Other critics have similarly disparaged these mandates by calling them "aspirational"; the goals may seem worthy, but Congress has never been sure how or even whether they can be reached.[3] For critics, symbolism makes for an easy target. The

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[*] Clerk, Hon. Frank M. Hull, Eleventh Circuit Court of Appeals; J.D., Harvard Law School, 2004. The author would like to thank Joseph Singer, David Dana, Lois Schiffer, Amy Sinden, Raife Giovinazzo, Evan Ratliff, and Warren Braunig for their insight and comments.

[1] John P. Dwyer, *The Pathology of Symbolic Legislation*, 17 ECOL. L.Q. 233, 233 (1990).

[2] *Id.*

[3] *See* James A. Henderson, Jr., & Richard N. Pearson, *Implementing Federal Environmental Policies: The Limits of Aspirational Commands*, 78 COLUM. L. REV. 1429, 1446

CAA, critics say, is an extreme and unrealistic law adopted by an overzealous Congress that wanted to look tough responding to a popular cause. As experience has shown, EPA cannot implement or enforce the mandates as written. Critics demand that sensibility be added to balance the CAA's absurdities, either through a congressional rewrite, or by granting EPA broad flexibility to reinterpret the symbolic requirements to allow alternative regulatory approaches such as cost-benefit balancing.

Although critics are correct that the CAA cannot be implemented as written, they are wrong to conclude that CAA symbolism is dysfunctional. This Article argues that the CAA is symbolic by design, and that symbolism serves an instrumental purpose that has proven critical to the success of the statute. CAA symbolism was not the accidental creation of an ignorant or over-enthusiastic Congress. Rather, symbolism was a device Congress employed knowingly to place a "thumb on the scale" in favor of more forceful air pollution control. Put another way, the CAA's symbolic mandates were Congress's attempt to precommit EPA and industry to tackling air pollution with alacrity and to ward off the massive resistance to implementation that Congress fully—and rightly—expected.

The 2001 decision of *Whitman v. American Trucking Associations*[4] addressed what amounted to a full-scale challenge to the CAA's symbolism, although few commentators viewed the case in these terms. The challengers in *American Trucking* argued—quite correctly—that no matter what the CAA says, EPA is simply incapable of ignoring cost when it sets air quality standards. They asked the Court to allow cost-benefit balancing to bring some sense to the otherwise unyielding mandates of the CAA. The Supreme Court rejected their argument emphatically and unanimously. With little explanation of how EPA might actually ignore cost while setting air quality standards, the Court summarily dismissed the argument that the CAA permits considerations other than health.

Part II begins by arguing that *American Trucking* should be read as a resounding affirmation of Congress's choice to include symbolic mandates in the CAA. While the Court did not explicitly admit that the cost-ignoring mandate is impossible to meet, the Court paradoxically affirmed CAA symbolism more forcefully through obfuscation than it could have by tackling the symbolism explicitly. Part II then discusses the origins of CAA symbolism and defends its practical utility and historic success. The CAA, a law which demands the impossible, can be and is enforced in practice. Because the CAA's symbolic mandates appear at the front end, where the CAA triggers a duty to act, the CAA's unequivocal language prevents EPA from escaping its duties. On the back end, where EPA interprets and implements the law in detail, *Chevron* deference allows EPA

(1978). This Article treats the terms "symbolic" and "aspirational" interchangeably, but uses primarily "symbolic" for simplicity.

[4] 531 U.S. 457 (2001).

a healthy dose of pragmatism to compensate for the infeasibility of literal enforcement and ensures that the CAA remains functional.

Two years after *American Trucking*, EPA ignored the *American Trucking* opinion when it issued a ruling on the critically important topic of global warming. EPA declared that carbon dioxide ("CO_2") emissions, the central cause of human-induced global warming, are categorically not subject to the CAA.[5] EPA cited uncertainty, cost, congressional inaction, and the inapplicability of the CAA framework to carbon emissions as grounds for this ruling.[6] Twelve states and numerous environmental groups sued to challenge EPA's decision. In July, 2005, the D.C. Circuit upheld EPA's determination not to regulate CO_2 in a 2-1 decision in *Massachusetts v. EPA*.[7]

Part III discusses the importance of CAA symbolism to the question of EPA's authority to address global warming and its principal cause, CO_2. Both EPA's internal opinion regarding CO_2 and the D.C. Circuit's decision in *Massachusetts v. EPA* ignored the symbolic nature of the CAA and its affirmation in *American Trucking*. EPA's declaration that CO_2 falls outside the CAA is a perfect example of the kind of front-end excuse-making that the CAA's symbolism was intended to preempt. Part III then explains how a functional global warming regulatory regime could be built from the CAA's unarguably flawed structure. Part III concludes with the implications of *Massachusetts v. EPA* for both global warming policy and the CAA.

The control of CO_2 emissions is a contentious, high-stakes, and profoundly complex air pollution challenge. Yet Congress wrote the CAA in categorical, broad, action-forcing terms in order to counter the inevitable strident objections to costly regulation. The central message of *American Trucking* is that the cost, infeasibility, uncertainty, and even impossibility of enforcing the CAA's literal mandates cannot be invoked as reasons for not acting at all. EPA's CO_2 opinion and *Massachusetts v. EPA* demonstrate a failure to understand or apply the Court's emphatic affirmation of CAA symbolism.

II. American Trucking and CAA Symbolism

Most lawyers know *American Trucking*[8] as a case about the constitutional doctrine of non-delegation. Less noticed has been the fact that *Ameri-*

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[5] *See* Memorandum from Robert E. Fabricant, General Counsel, U.S. EPA, to Marianne L. Horinko, Acting Administrator, U.S. EPA, EPA's Authority to Impose Mandatory Controls to Address Global Climate Change Under the Clean Air Act, Memorandum from Robert E. Fabricant, General Counsel (Aug. 28, 2003) [hereinafter Fabricant Memo], *available at* http://www.epa.gov/airlinks/co2_general_counsel_opinion.pdf (last visited Oct. 1, 2005) (on file with the Harvard Environmental Law Review).

[6] *See id.*

[7] 415 F.3d 50 (D.C. Cir. 2005).

[8] Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457 (2001).

can Trucking emphatically approved a vision of the CAA that requires far more than EPA can possibly deliver. Those who have commented on this aspect of *American Trucking* have not done so favorably, calling the Court's CAA ruling "incoherent,"[9] "disappointing,"[10] and "unhelpful."[11]

This Part defends *American Trucking* by arguing that the Supreme Court properly understood that the CAA is a "symbolic" law. The CAA is symbolic because it sets noble and lofty goals, but if literally read, requires EPA to do something impossible: to regulate air pollution stringently enough to ensure a risk-free environment.[12] Other authors have also called the statute "aspirational," in that Congress has never been sure how or even whether the statute's goals would be reached.[13] For purposes of this Article, "symbolic" is used to capture both of these qualities: that the CAA's requirements are too stringent to be achieved, and that the stated goals have proved unattainable and are therefore aspirational.

Although the CAA requires more than is pragmatically or realistically possible, the CAA does so on purpose. As such, EPA and the courts must interpret the CAA in line with this symbolic congressional intent. Of course, if the CAA's symbolic mandates are to be implemented, the CAA must be interpreted in a non-literal, pragmatic fashion. Although this requires an atypical and imperfect approach to statutory interpretation, it is an approach that has worked since the CAA's inception. While critics latch onto the CAA's symbolism as a basis for striking down the CAA or weakening its provisions, the Supreme Court unanimously rebuffed such challenges in *American Trucking*.

A. American Trucking*: A Failed Challenge to the CAA*

American Trucking centered upon a challenge to section 109 of the CAA: the requirement that EPA set national ambient air quality standards ("NAAQS") for each criteria pollutant.[14] A NAAQS is a standard for the air itself, establishing an upper limit for the concentration of a given pollutant in the air.[15] Under the CAA, EPA must review and revise the NAAQS for each criteria pollutant every five years, taking into account the most recent science about the risks posed by each pollutant.[16] In 1997, after an extensive review of the health and welfare effects of ozone and particu-

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[9] Cary Coglianese & Gary E. Marchant, *Shifting Sands: The Limits of Science in Setting Risk Standards*, 152 U. PA. L. REV. 1255, 1351 (2004).

[10] Richard J. Pierce, Jr., *The Appropriate Role of Costs in Environmental Regulation*, 54 ADMIN. L. REV. 1237, 1273 (2002).

[11] Cass R. Sunstein, *Regulating Risks After ATA*, 2001 SUP. CT. REV. 1, 3 (2001).

[12] Dwyer, *supra* note 1, at 233.

[13] *See* Henderson & Pearson, *supra* note 3, at 1446.

[14] CAA § 109(b), 42 U.S.C. § 7409(b) (2005).

[15] *See* ARNOLD W. REITZE, JR., AIR POLLUTION CONTROL LAW: COMPLIANCE AND ENFORCEMENT 33 (2001).

[16] CAA § 109(d)(1), 42 U.S.C. § 7409(d)(1) (2005).

late matter ("PM"), EPA issued new, stricter standards for both.[17] The American Trucking Associations ("ATA") and numerous other industrial interests challenged these new standards in the D.C. Circuit.[18]

Among other claims, ATA made the novel argument that EPA's standard-setting had violated the constitutional non-delegation doctrine.[19] The non-delegation doctrine protects the constitutional separation of powers by preventing Congress from ceding too much of its Article I legislative power to the executive branch.[20] The Court, however, rarely invokes the doctrine.[21] Most congressional enactments easily pass the Court's non-delegation test, which requires only that Congress articulate an "intelligible principle" to guide an agency applying a given statute.[22] Nonetheless, ATA argued that EPA had lacked such "an intelligible principle" when it set the new NAAQS. The case garnered tremendous attention and the Supreme Court accepted it for certiorari after the D.C. Circuit ruled in ATA's favor.[23]

1. The Heart of the Non-Delegation Dilemma: Non-Threshold Pollutants

The CAA requires EPA to set NAAQS without considering economic cost.[24] In other words, when EPA sets the permissible levels for a given pollutant, it must do so based only on its best understanding of the pollutant's harmfulness to public health and welfare; EPA cannot set a more relaxed standard in order to reduce expected compliance costs.[25]

This understanding of the CAA derives from the text of section 109, which requires that for each criteria pollutant, EPA set primary standards designating the concentration limit that is "requisite to protect the public health" with an "adequate margin of safety."[26] Secondary standards designate a parallel upper limit that is "requisite to protect the public welfare."[27] Because other sections of the CAA explicitly allow the EPA to consider costs whereas section 109 does not, and because the extensive legislative his-

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[17] NAAQS for Particulate Matter, 62 Fed. Reg. 38,652 (July 18, 1997) (codified at 40 C.F.R. pt. 50); Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457, 463 (2001).

[18] *Id.*

[19] Am. Trucking Ass'ns, Inc. v. EPA, 175 F.3d 1027, 1034 (D.C. Cir. 1999).

[20] J.W. Hampton, Jr., & Co. v. United States, 276 U.S. 394, 406 (1928).

[21] The Court has struck down only two statutes as unconstitutional delegations of legislative power, both in 1935. *See* A.L.A. Schechter Poultry Co. v. United States, 295 U.S. 495 (1935); Panama Ref. Co. v. Ryan, 293 U.S. 388 (1935).

[22] Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457, 474 (2001).

[23] Am. Trucking Ass'ns, Inc. v. EPA, 175 F.3d at 1033–34.

[24] *See* Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d 1130, 1148 (D.C. Cir. 1980) ("[The CAA] and its legislative history make clear that economic considerations play no part in the promulgation of ambient air quality standards under Section 109.").

[25] *See id.*

[26] CAA § 109(b)(1), 42 U.S.C. § 7409(b)(1) (2005).

[27] 42 U.S.C. § 7409(b)(2) (2005).

tory of section 109 strongly indicated Congress did not want EPA to consider costs, the D.C. Circuit concluded in the 1980 case *Lead Industries Association, Inc. v. EPA* that EPA has no discretion to consider costs when it sets the initial standards for each pollutant.[28] A long line of cases, culminating in *American Trucking*, has agreed.[29]

It seems odd that Congress would want EPA to ignore costs when setting air quality standards.[30] However, section 109's "health-only" mandate makes more sense when viewed as the first in a two-stage process for controlling air pollution. In the first stage, EPA sets NAAQS—objective standards defining the level of pollution above which adverse affects occur. During this stage, EPA cannot consider cost; it must set NAAQS based on a scientific assessment that determines the highest level of the pollutant "at which there is an absence of adverse effect."[31] In the second stage, EPA and the states collaboratively implement the standards for each pollutant.[32] During implementation, EPA and the states may consider the costs of alternative emissions reduction strategies.[33] Thus the CAA's health-only requirement does not prevent cost-consideration throughout implementation, but only at the front end, when EPA sets the NAAQS. According to the CAA, EPA may consider cost at the implementation stage, but must base the national goals for air quality on science and health considerations alone.[34]

The problem with this formulation is that it depends on the premise that pollutants have thresholds—that there exists a "safe" concentration for a given pollutant.[35] For threshold pollutants, health-only standard set-

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[28] Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d 1130, 1148 (D.C. Cir. 1980).

[29] *See* Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457, 464 (2001) (mentioning *Lead Industries* and "many other occasions" where EPA was required to set NAAQS without regard to cost).

[30] *See* Cass R. Sunstein, *Is the Clean Air Act Unconstitutional?*, 98 MICH. L. REV. 303, 316 (1999-2000) ("When benefits are highly uncertain, it is peculiar to say that EPA cannot consider cost, especially since health gains are almost inevitable as permissible exposure levels decline.").

[31] *Lead Indus*., 647 F.2d at 1153 (internal quotations omitted).

[32] This is done primarily through State Implementation Plans ("SIPs") and technological requirements. *See* REITZE, *supra* note 15, at 58–61 (describing SIP process) and 175–207 (describing technology requirements).

[33] *See, e.g.*, CAA § 111(a)(1), 42 U.S.C. § 7411(a)(1) (2005) (EPA must take cost into consideration when setting New Source Performance Standards); *see also* Union Elec. Co. v. EPA, 427 U.S. 246, 266 (1976) ("Perhaps the most important forum for consideration of claims of economic and technological infeasibility is before the state agency formulating the implementation plan").

[34] *Lead Indus.*, 647 F.2d at 1148.

[35] *See* SENATE COMM. ON PUB. WORKS, 93D CONG., 2D SESS., COORDINATING COMM. ON AIR QUALITY STUDIES, NAT'L ACADEMY OF SCIENCES, AIR QUALITY AND AUTOMOBILE EMISSIONS CONTROL 17 (Comm. Print 1974) ("The present standards were derived on the assumption that such thresholds do exist."). *See also* Sunstein, *supra* note 30, at 315 ("When it is said that a certain level of pollution is 'safe,' what is really meant is that the residual risk is acceptable or tolerable—not that there is no risk at all."); Coglianese & Marchant, *supra* note 9, at 1285 ("The statutory provisions for adopting NAAQS, initially enacted in their present form in 1970, are based on the assumption that pollutants have thresh-

ting is both feasible and relatively straightforward. The CAA commands that EPA set the NAAQS at the threshold level—the highest concentration that does not adversely affect public health and welfare.[36] But many (if not most) air pollutants are non-threshold pollutants—they are harmful to health or welfare at any non-zero concentration.[37] The only way to attain a zero concentration would be to stop all driving, close all power plants, and lock the doors on all industrial factories, which was clearly not the intention of Congress.[38] But if the CAA truly requires EPA to ignore costs when setting NAAQS, then EPA must set the NAAQS at zero regardless of the consequences. Non-threshold pollutants thus create a tricky problem: how can EPA set standards at a non-zero level while meeting the CAA requirement to consider only health and welfare?

Fundamentally, ATA's non-delegation challenge to EPA's ozone and PM standards was a challenge to this health-only mandate as applied to non-threshold pollutants. When it set the NAAQS challenged in *American Trucking*, EPA acknowledged that the two pollutants at issue, ozone and PM, both lack clear thresholds.[39] Yet although EPA tightened the old ozone and PM standards, the new standards both allow concentrations of ozone and PM well above zero.[40] This was why, according to ATA and the D.C. Circuit panel that ruled in its favor, EPA lacked an "intelligible principle" when setting NAAQS.[41] The CAA instructs EPA to consider only health and welfare when setting national standards. Considered alone, the court argued, the non-threshold health and welfare harms associated with ozone and PM should have led EPA to set both standards at zero.[42] EPA must there-

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olds for which it is possible to set a 'safe' level.").

[36] EPA must also include "an adequate margin of safety" when considering health effects. CAA § 109(b)(1), 42 U.S.C. § 7409(b)(1) (2005).

[37] Coglianese & Marchant, *supra* note 9, at 1286 ("Few, if any, criteria pollutants regulated under the Clean Air Act exhibit a clear threshold").

[38] Actually stopping all human activity might not even work, since some pollutants occur in the air naturally, at so-called "background levels." Zero, in this context, may thus be interpreted as equal to the background level for a given pollutant.

[39] Am. Trucking Ass'ns, Inc. v. EPA, 175 F.3d 1027, 1034 (D.C. Cir. 1999) ("EPA regards ozone definitely, and PM likely, as non-threshold pollutants . . . ."), *rev'd on other grounds*, Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457 (2001); National Ambient Air Quality Standards for Ozone, 62 Fed. Reg. 38,856, 38,863 (EPA July 18, 1997) (final rule) (codified at 40 C.F.R. pt. 50) (stating that ozone "may elicit a continuum of biological responses down to background concentrations" and lacks "any discernable threshold").

[40] EPA revised the existing 0.12 parts per million (ppm) standard (1-hour average) for ozone to a 0.08 ppm standard (calculated based on an 8-hour average). 62 Fed. Reg. 38,651, 38,858 (EPA July 18, 1997) (final rule) (codified at 40 C.F.R. pt. 50). EPA added two new standards for fine particulate matter (PM with a diameter under 2.5 micrometers) to the existing standard for PM of under 10 micrometers. National Ambient Air Quality Standards for Particulate Matter, *Id.* at 38,652.

[41] Am. Trucking Ass'ns, Inc. v. EPA, 175 F.3d at 1036–37 ("The principle EPA invokes for each increment in stringency . . . could as easily, for any nonthreshold pollutant, justify a standard of zero. . . . [T]he agency rightly recognizes that the question is one of degree, but offers no intelligible principle by which to identify a stopping point."), *rev'd by* Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457 (2001).

[42] *Id.*

fore have considered factors other than health and welfare, but EPA did not enumerate those factors. Because EPA did not identify a limiting interpretation of the CAA that explained its non-zero standards, EPA was acting with no statutory guidance whatsoever—essentially, EPA had legislated in derogation of the non-delegation doctrine.[43]

2. The Supreme Court's Unanimous Approval of the Clean Air Act

The Supreme Court rejected the D.C. Circuit's non-delegation holding in a forceful, unanimous opinion by Justice Scalia.[44] The Court dispensed with ATA's constitutional argument on two grounds. First, the Court reasoned that if the CAA really amounts to an improper delegation of legislative power, EPA's interpretation of the CAA could not cure that infirmity. The Court therefore rejected the D.C. Circuit's suggestion that EPA could have solved the delegation problem by identifying on its own an "intelligible principle" which led to the non-zero standards for ozone and PM.[45]

More generally, the Court felt satisfied that the CAA provides sufficient guidance to EPA. The CAA tells EPA to set NAAQS at a level "requisite" to protect health and welfare. The Court found this to be an intelligible principle "well within the outer limits of our non-delegation precedents."[46]

The constitutional holding of *American Trucking* is less important for this Article than is the Court's equally forceful affirmation of the CAA's cost-ignoring mandate. Not only did the Court affirm that EPA must set NAAQS without regard to cost, it derided ATA's argument to the contrary. ATA had suggested that by explicitly comparing the costs and benefits of its proposed standards, EPA could have supplied the necessary "intelligible principle" to avoid running afoul of non-delegation doctrine.[47] The Court emphatically rejected this proposal not only on the grounds described above, but also as a matter of statutory interpretation. Reviewing section 109's requirement that NAAQS be set at a level "requisite to protect the public health" with "an adequate margin of safety," the Court quipped that "[w]ere it not for the hundreds of pages of briefing respondents have submitted on the issue, one would have thought it fairly clear that this text does not permit the EPA to consider costs in setting the standards."[48] Rejecting a series of arguments by ATA and amici that consideration of cost could fit within the CAA's text, the Court summarized that

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[43] *Id.* at 1038 ("[S]tatutory language and an existing agency interpretation involve an unconstitutional delegation of power . . . .").

[44] *See Am. Trucking*, 531 U.S. 457, 462 (2001).

[45] *Id.* at 472 ("We have never suggested that an agency can cure an unlawful delegation of legislative power by adopting in its discretion a limiting construction of the statute.").

[46] *Id.* at 474.

[47] *Id.* at 468–69.

[48] *Id.* at 465.

the CAA "unambiguously bars cost considerations from the NAAQS-setting process, and thus ends the matter for us as well as the EPA."[49]

The Court explained that because many other sections of the CAA explicitly command EPA to consider cost, the absence of cost from section 109 demonstrates Congress's desire to remove cost from the standard-setting equation.[50] In a separate concurrence, Justice Breyer explained in greater detail the legislative history supporting this reading of the CAA.[51] Justice Breyer, long an advocate of cost-benefit analysis,[52] first emphasized that because considering cost is often essential to sound regulatory policymaking, statutes that are ambiguous or silent on the matter should generally be read to permit consideration of cost.[53] However, he then reviewed the legislative history and text of the CAA, explaining why Congress had chosen to prevent EPA from considering cost at the standard-setting stage.[54] Congress designed the CAA to be "technology forcing"—to force the development of as-yet unforeseen solutions to air pollution.[55] As such, Congress consciously removed feasibility and cost from the CAA's standard-setting stage, since disputes over costs might have delayed or watered down the CAA's visionary mandate.[56]

The Court remanded to the D.C. Circuit to review any surviving challenges to the ozone and PM standards.[57] In the wake of the Court's stern rebuke, the D.C. panel approved of EPA's standards, quickly rejecting the argument that EPA had been arbitrary and capricious by setting the nonzero standards without sufficient explanation.[58] The D.C. Circuit acknowledged that "[t]he lack of a threshold concentration below which these pollutants are known to be harmless makes the task of setting primary NAAQS difficult."[59] However, the court accepted EPA's explanation that whether harmful effects occur at concentrations below the new standards was scientifically uncertain.[60] The court considered this ongoing uncertainty "an

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[49] *Am. Trucking*, 531 U.S. at 471.

[50] *Id.* at 467.

[51] *Id.* at 490 (Breyer, J., concurring). Justice Breyer's desire to explore the legislative history of the CAA in greater detail than Justice Scalia is consistent with their contrasting views of the value of legislative history as a tool of statutory construction. *See* Sunstein, *supra* note 11, at 24.

[52] *See generally* STEPHEN BREYER, BREAKING THE VICIOUS CIRCLE: TOWARD EFFECTIVE RISK REGULATION (1992).

[53] *Am. Trucking*, 531 U.S. at 490 (2001) (Breyer, J., concurring).

[54] *Id.*

[55] *Id.* at 492.

[56] *See id.*

[57] *See id.* at 476.

[58] Am. Trucking Ass'ns, Inc. v. EPA, 283 F.3d 355, 371–72 (D.C. Cir. 2002).

[59] *Id.* at 360.

[60] *See id.* at 367 ("Although EPA acknowledged it could not rule out the possibility of [health] effects at lower annual concentrations [of PM], it nevertheless decided not only that the evidence for such effects is highly uncertain, but that the likelihood of *significant* health risk decreases as annual-average PM concentrations approach background levels.") (internal quotations omitted). *See also id.* at 379 ("[T]he absence of *any* human clinical studies at ozone concentrations below 0.08 . . . amply supports EPA's assertion that the

eminently rational reason to set the primary standard at a somewhat higher level, at least until additional studies become available."[61]

3. American Trucking*'s Implicit Approval of CAA Symbolism*

American Trucking was clearly a victory for environmentalists and a blow for advocates of cost-benefit analysis.[62] Even so, the Court chose not to address explicitly the alleged CAA flaw that undergirded ATA's non-delegation argument. Instead, the Court unanimously held that EPA not only can, but must, set NAAQS based only on health and welfare and without regard to cost. The Court made no effort to explain a rational escape from the quandary facing EPA: how can EPA set non-zero standards for non-threshold pollutants while considering only health and welfare and ignoring cost?[63] The answer, as many critics of the CAA have argued, is simple: it can't.[64]

Unlike the *American Trucking* majority, Justice Breyer at least attempted to tackle the non-threshold problem in his concurrence.[65] While Justice Breyer joined the majority opinion reaffirming the long-held understanding that the CAA commands EPA to set standards without regard to cost, he also tried to explain how EPA can put this requirement into practice. Justice Breyer's attempt to make sense of the CAA's regulatory regime and give guidance for its implementation led Cass Sunstein to call the concurrence "the most important opinion in the case."[66] Yet as appealing as Justice Breyer's argument may be, it is neither theoretically sound nor supported by the specific evidence of how EPA arrived at its ozone and PM standards.

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most serious health effects of ozone are less certain at low concentrations.") (internal citations omitted).

[61] Am. Trucking Ass'ns, Inc. v. EPA, 283 F.3d 355, 379 (D.C. Cir. 2002).

[62] *See* Linda Greenhouse, *E.P.A.'s Right to Set Air Rules Wins Supreme Court Backing*, N.Y. Times, Feb. 28, 2001, at A1 (quoting Carol Browner, former EPA Administrator, calling the decision "an incredibly important victory for public health.").

[63] The Court struggled mightily with the non-threshold problem during oral arguments. Multiple Justices tried to understand how EPA could select a non-zero standard for a non-threshold pollutant "once you take all costs and these other things out [of consideration]." Transcript of Oral Argument at 14–18, Browner v. Am. Trucking Ass'ns, Inc., 531 U.S. 457 (2000) (No. 99-1257). Yet the Court's opinion mentioned the non-threshold issue only in passing, calling it "not conclusive for delegation purposes that, as respondents argue, ozone and particulate matter are 'nonthreshold' pollutants . . . and hence require the EPA to make judgments of degree." Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457, 475 (2001).

[64] *See, e.g.*, George Eads, *The Confusion of Goals and Instruments: The Explicit Consideration of Cost in Setting National Ambient Air Quality Standards*, *in* To Breathe Freely: Risk, Consent, and Air 222, 229 (Mary Gibson ed., 1985) (calling the notion that costs are not considered when NAAQS are set a "policy fiction"). For an exhaustive list of citations to authors who have made this argument, see Coglianese & Marchant, *supra* note 9, at 1341 n.372.

[65] *Am. Trucking*, 531 at 490 (Breyer, J., concurring).

[66] Sunstein, *supra* note 11, at 5.

According to Justice Breyer, although EPA must set standards without regard to cost, the CAA does not require EPA to set standards strict enough to eliminate all risk.[67] Citing the well-known Benzene Case, Justice Breyer noted that "safe does not mean risk-free."[68] Instead, Justice Breyer argued that EPA could reasonably rely on context to determine a "safe" level for air pollution:

> Nor are the words "requisite" and "public health" to be understood independent of context. We consider football equipment "safe" even if its use entails a level of risk that would make drinking water "unsafe" for consumption. And what counts as "requisite" to protecting the public health will similarly vary with background circumstances, such as the public's ordinary tolerance of the particular health risk in the particular context at issue.[69]

Justice Breyer concluded that the CAA's health-only mandate still allows EPA to consider factors such as "the severity of a pollutant's potential adverse health effects, the number of those likely to be affected, the distribution of the adverse effects, and the uncertainties surrounding each estimate."[70] On remand, the D.C. Circuit essentially approved Justice Breyer's understanding. According to the circuit court, EPA's standards were not arbitrary and capricious because the non-zero values EPA chose were reasonably founded on the uncertainty and triviality of health effects at lower levels.[71]

The theoretical flaw in Justice Breyer's argument is that even if EPA considered all the health factors his concurrence mentions, as a simple matter of logic, none of them would ever, on their own, explain why EPA had chosen a laxer standard. For instance, imagine that a certain concentration of a given pollutant would harm only a few hundred people in minor ways. To Justice Breyer, this relatively minor impact might represent a "safe" level of risk. Accordingly, the CAA would permit EPA to adopt a standard allowing that level of pollution. But even if the harm caused by a pollutant were this minor, an EPA considering only health would not allow that harm to occur. As ATA's counsel pointed out at oral argument, if EPA cannot consider cost, there is nothing "on the other side of the equa-

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[67] *Am. Trucking*, 531 U.S. at 494 (Breyer, J., concurring) (*citing* Indus. Union Dept., AFL-CIO v. Am. Petroleum Inst., 448 U.S. 607, 642 (1980) ("Benzene Case") (plurality opinion)).

[68] *Id.*

[69] *Id.*

[70] *Id.* Lisa Heinzerling has made similar arguments in defense of the ozone and PM standards at issue in *American Trucking*. *See* Lisa Heinzerling, *The Clean Air Act and the Constitution*, 20 ST. LOUIS U. PUB. L. REV. 121, 127 (2001) ("[E]ven where a safe level (a 'threshold') for a pollutant has not been proven, EPA still may, nonarbitrarily, set the NAAQS for that pollutant based on the agency's judgment with respect to such factors as uncertainties surrounding the evidence of health effects, the adverse nature of the detectable effects, and the size of the population affected.").

[71] *See supra* notes 59 to 61 and accompanying text.

tion" to balance against even trivial or uncertain health risks.[72] Since non-threshold pollutants harm health at any level, there is no health-related reason to set their NAAQS above zero.

Justice Breyer is right, of course, that safety is contextual. But "context" doesn't solve the CAA problem. For one thing, in the context of breathing the air—as opposed to playing football, the example used by Justice Breyer—people quite reasonably expect to face no risk at all. More importantly, Justice Breyer's invocation of context is really just a euphemism for cost. The context for our implementation of the CAA, or the reason we might be willing to accept some risk from air pollution, is that we get something in return. We accept some risk because it would cost us something to remove the pollution. Thus even EPA's decision that a particular risk is meaningless or de minimis implicitly involves deciding that the small risk is outweighed by the cost of removing it.[73] As one critic put it succinctly, "[i]f all costs were truly ignored, then no risk would be acceptable."[74]

Even scientific uncertainty cannot, on its own, explain why EPA would reject more stringent regulation of non-threshold pollutants. Just as with trivial harms, if EPA must truly ignore costs, EPA can provide no rationale for adopting a NAAQS that does not remove even uncertain risks. Justice Breyer's uncertainty argument faces an additional hurdle because the CAA itself specifically limits EPA's discretion to invoke uncertainty as a basis for laxer standards. In *Lead Industries Association, Inc. v. EPA*,[75] the same opinion cited favorably in *American Trucking* for establishing that EPA cannot consider cost, the D.C. Circuit rejected uncertainty as a basis for declining to set standards.[76] According to *Lead Industries*, "Congress provided that the [EPA] Administrator is to use his judgment in setting air quality standards precisely to permit him to act in the face of uncertainty . . . . Congress directed the Administrator to err on the side of caution in making the necessary decisions."[77] The very reason the CAA in-

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[72] Transcript of Oral Argument at 31–32, Browner v. Am. Trucking Ass'ns, Inc., 531 U.S. 457 (2000) (No. 99-1257) (decided together with Whitman v. Am. Trucking Ass'ns, Inc.); *see also* Pierce, *supra* note 10, at 1260–61.

[73] Dwyer, *supra* note 1, at 273.

[74] Joseph Feller, *Non-Threshold Pollutants and Air Quality Standards*, 24 ENVTL. L. 821, 833 (1994).

[75] 647 F.2d 1130 (D.C. Cir. 1980) ("Congress . . . specifically directed the [EPA] to allow an adequate margin of safety to protect against effects which have not yet been uncovered by research and effects whose medical significance is a matter of disagreement."). The Supreme Court upheld *Lead Industries* in Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457, 464 (2001). *See also* NRDC v. Train, 545 F.2d 320, 324 n.5 (2d Cir. 1976) ("It is irrelevant that the current state of scientific knowledge may make it difficult to set an ambient air quality standard.").

[76] *Am. Trucking*, 531 U.S. at 464 (2001) (citing Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d 1130, 1148 (D.C. Cir. 1980)).

[77] Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d at 1155; *see also* NRDC v. Train, 545 F.2d at 324 n.5 ("It is irrelevant that the current state of scientific knowledge may make it difficult to set an ambient air quality standard.").

structs EPA to set standards not only "requisite to protect the public health" but also "with an adequate margin of safety" is to account for health risks that might as yet be difficult to quantify with certainty.[78]

In addition to suffering from this theoretical flaw, Breyer's argument also fails as a factual matter when applied to the ozone and PM standards. EPA claimed that it chose the standards it did because the evidence for health risks at ozone or PM concentrations below the new standards was "highly uncertain,"[79] and because the remaining harm was small and unproven. This explanation satisfied the D.C. Circuit on remand.[80] But as Cary Coglianese and Gary Marchant have convincingly argued, EPA's own studies and analyses quite clearly showed that stricter standards for both PM and ozone would have entailed substantial and demonstrable health benefits.[81] After an exhaustive review of the data and reports EPA used to set the standards, Coglianese and Marchant concluded that

> [t]he same kind of scientific evidence that EPA relied on to tighten its [ozone and PM] standards also indicated that significant adverse effects—including, in the case of fine PM, substantial mortality—would persist even at the levels of exposure permitted by the revised standards.[82]

Thus, even accepting that EPA may set standards that do not address small or uncertain risks, that is not what happened in the case of ozone and PM. The Court dismissed the notion that EPA might have considered cost without saying so,[83] but that is exactly what EPA must have done.

B. The History of CAA Symbolism

According to *American Trucking*, section 109 mandates that EPA, without any consideration of cost, set NAAQS "requisite to protect the public health," with "an adequate margin of safety."[84] However appealing that mandate sounds, ignoring cost is simply not possible in the case of nonthreshold pollutants. Section 109, the key trigger to regulation under the complex NAAQS regime, is a symbolic requirement: it sets forth a goal

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[78] *See* S. REP. NO. 91-1196, at 10 (1970) ("Margins of safety are essential to any health-related environmental standards if a reasonable degree of protection is to be provided against hazards which research has not yet identified.").

[79] Am. Trucking Ass'ns, Inc. v. EPA, 283 F.3d 355, 367 (D.C. Cir. 2002).

[80] *See supra* notes 58 to 61 and accompanying text.

[81] Coglianese & Marchant, *supra* note 9, at 1300–23.

[82] *Id.* at 1359.

[83] *See* Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457, 471 n.4 (2001) ("Respondents' speculation that the EPA is secretly considering the costs of attainment without telling anyone is irrelevant to our interpretive inquiry. If such an allegation could be proved, it would be grounds for vacating the NAAQS, because the Administrator had not followed the law.").

[84] *Id*. at 465.

that cannot be implemented literally. Yet despite this literal impossibility, the Court in *American Trucking* unanimously rejected pleas to rationalize or water down the "no cost" mandate. As this Part will explain, despite loud criticisms of the unrealistic requirements of the CAA, the Court's decision was faithful to the intent of Congress and mirrored similar decisions in the long history of CAA litigation.

1. Legislative History

Why would the Court approve of an interpretation of section 109 that is impossible to implement? The explanation lies in the overwhelming evidence that section 109's impossible mandate was no accident. Congress knowingly and intentionally approved of section 109's symbolism.[85] By 1977, when Congress undertook major revisions to the CAA, it was perfectly clear that most pollutants had no clear thresholds, and that it would therefore be impossible to set NAAQS "requisite to protect the public health" without considering cost.[86] Yet Congress chose to maintain the fiction that thresholds exist, adding no statutory safety valve to section 109 to allow cost or other considerations into the standard setting phase.

Congress's choice is but one in a long series of steps Congress took over many years to strengthen federal air quality legislation in response to the nation's persistent failure to mitigate air pollution. By the late 1960s, American air quality was in a dire condition; years of robust economic growth and persistent unwillingness on the part of state governments to regulate had driven pollution to dangerous levels.[87] Congress's first effort to address the problem, the 1967 Air Quality Act, disseminated information to states and encouraged them to set air quality goals, but to no avail.[88] As the Supreme Court noted in 1975, the strict requirements of the 1970 CAA "reflect[ed] congressional dissatisfaction with the progress of existing air pollution programs."[89] Exasperated by the resistance to undertaking costly pollution control efforts, the 1970 Congress wrote the CAA to

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[85] *See* Dwyer, *supra* note 1, at 249–50 ("[C]ircumstances surrounding the enactment of the 1970 Act indicate that legislators deliberately drafted and supported provisions they knew had little chance of being implemented.").

[86] *See infra* notes 91–94 and accompanying text.

[87] *See* EPA, NATIONAL AIR POLLUTANT EMISSION TRENDS: 1900-1998, at 3-1 to 3-15 (Mar. 2000), *available at* http://www.epa.gov/ttn/chief/trends/trends98/index.html (documenting EPA data showing that national emissions of all criteria pollutants rose rapidly during the 1960s) [hereinafter Emission Trends]. Richard Revesz has argued that contrary to conventional wisdom, the states were taking concerted action to improve air quality prior to 1970, and air quality was actually improving. Richard L. Revesz, *Federalism and Environmental Regulation: A Public Choice Analysis*, 115 HARV. L. REV. 553, 578–83 (2001). Revesz's argument is hard to square with EPA's data. *See* Emission Trends at 3-1 to 3-15. Regardless, it is clear that the 1970 Congress believed strongly that state efforts were not succeeding and that air quality was getting worse. Union Elec. Co. v. EPA, 427 U.S. 246, 249 (1976).

[88] *See* Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d 1130, 1149 (D.C. Cir. 1980).

[89] Union Elec. Co. v. EPA, 427 U.S. at 249.

be "a drastic remedy to what was perceived as a serious and otherwise uncheckable problem of air pollution."[90] Even so, by 1977 Congress again felt that the CAA had not gone far enough. The 1977 CAA amendments eventually strengthened existing provisions and added new and more stringent requirements, including new motor vehicle emission controls, strict technological standards across a myriad of industries, and the "Prevention of Serious Deterioration" ("PSD") requirements targeting areas already in compliance with the NAAQS.[91]

In 1977, as it contemplated how to strengthen the CAA, Congress discussed the non-threshold pollutant dilemma at length. A 1975 report by the National Academy of Sciences informed the legislature that "in no case is there evidence that the threshold levels [of criteria pollutants] have a clear physiological meaning, in the sense that there are genuine adverse health effects at and above some level of pollution, but no effects at all below that level."[92] Congress grasped the obvious implication—that without clear thresholds it was impossible for EPA to implement section 109 literally. Based on the NAS report, the House Committee overseeing the 1977 CAA Amendments admitted that "[t]he national primary standards are based on the assumption that a no-effects threshold level exists and can be proved; in fact, this assumption of a safe threshold appears to be false."[93] Senator Muskie, the principal sponsor of the 1977 Clean Air Act Amendments,[94] likewise acknowledged that EPA would never be able to comply literally with the wording of section 109.[95]

The symbolic nature of section 109's mandate did not inspire Congress to make the provision more flexible. On the contrary, the lack of clear thresholds motivated Congress to make section 109 even stricter. Congress reasoned that "as measurement methods for either the pollutants or the biological indicator improve, the threshold will shift" such that a con-

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[90] *Id.* at 256.

[91] *See* Oliver A. Houck, *Of Bats, Birds, and B-A-T: The Convergent Evolution of Environmental Law*, 63 MISS. L.J. 403, 420–21 (1994); Robert T. Grolnick, *National Mining Association v. EPA: Industry Breathes A Sigh of Relief Over the Determination of a Site's Potential to Emit Pollutants Under the Clean Air Act Amendments of 1990*, 8 VILL. ENVTL. L.J. 519, 520 n.6 (1997).

[92] H.R. REP. NO. 95-294, at 110 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077 (internal citations omitted).

[93] *Id.*

[94] *See* Ala. Power Co. v. Costle, 636 F.2d 323, 406 (D.C. Cir. 1979).

[95] *See* Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d 1130, 1153 n.43 (D.C. Cir. 1980) ("I wish it were possible for the Administrator to set national primary and secondary standards that fully implement the statutory language. . . . The fact is, as testimony and documents disclose, the standards do not fully protect in accordance with the statutory language which gives the Administrator authority to provide for additional protection. He has had to make a pragmatic judgment in the face of the fact that he found there is no threshold on health effects, which makes it very difficult then to apply absolute health protection, and he has not been able to do that." (quoting testimony of Sen. Muskie, 123 Cong. Rec. S9426 (daily ed. June 10, 1977))).

centration that used to be considered "safe" is shown to be unsafe.[96] Congress therefore found it necessary to amend section 109 to include a clearer requirement that the standard include "an adequate margin of safety"—an added buffer to protect health even more than did the 1970 provision.[97] Most significantly, while the 1977 Congress recognized that section 109 was unrealistic, it also felt the language had instrumental value, describing "the 'safe threshold' concept" as "a necessary myth to permit the setting of some standards."[98]

Beyond section 109, other key CAA provisions are also symbolic, both in the sense that they are impossible to implement and in the sense that Congress was aware of that fact at the time the provisions were adopted.[99] Most notably, the CAA's numerous "technology-forcing" requirements compel industries and automakers to adopt pollution-cutting strategies that were not yet invented at the time the Congress enacted the CAA.[100] Similarly, the CAA set deadlines that were, at the very least, extremely ambitious. Even after EPA and regulated parties had failed to meet deadlines from the 1970 CAA,[101] Congress added further deadlines. The House Committee argued that "[s]tatutory deadlines create incentives not only for the polluting source to solve the problem; they also create positive incentives for independent researchers and vendors to find such solutions."[102] Senator Muskie trumpeted that the CAA would not be "limited by what is or appears to be technologically or economically feasible," and that "industries will be asked to do what seems to be impossible at the present time."[103] Congress thus knowingly imposed deadlines that states could only meet by adopting pollution controls not yet in existence.

2. Common Critiques

Just as Congress has long been aware that certain CAA provisions were symbolic, critics have complained for years about the CAA's unrealistic mandates. These critics commonly begin by arguing that posturing and political expedience were the motivation behind the CAA's absolutism.[104] They have argued, for example, that "[b]y enacting [a symbolic] statute, legislators reap the political benefits of voting for 'health and the environment'

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[96] H.R. REP. NO. 95-294, at 107 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1185.

[97] *Id.*; *see* CAA § 109(b)(1), 42 U.S.C. § 7409(b)(1) (2005).

[98] H.R. REP. NO. 95-294, at 111 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1190.

[99] *See* Dwyer, *supra* note 1, at 248 (arguing that the 1977 CAA's hazardous pollutant provisions were impractical and symbolic).

[100] Union Electric v. EPA, 427 U.S. 246, 256–57 (1975).

[101] *See* Feller, *supra* note 74, at 829–31. The 1977 Congress rolled back the 1970 deadlines that had been missed at the same time that it imposed new ones.

[102] *See* H.R. REP. NO. 95-294, at 65 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1143.

[103] 116 CONG. REC. 32, 901–02 (1970).

[104] *See, e.g.*, Richard J. Pierce, Jr., *Judicial Review of Agency Actions in a Period of Diminishing Agency Resources*, 49 ADMIN. L. REV. 61, 68 (1997).

and against 'trading lives for dollars,' and successfully sidestep the difficult policy choices that must be made in regulating public health and the environment."[105] Many of these critics view the entire range of environmental legislation enacted during the late 1960s and early 1970s as the result of this type of politicking, with the CAA being only the most egregious example.[106] In most cases, they argue, the fervor for action led to overly centralized and excessively regulatory statutes.[107]

The critics contend that while constituents may have liked a CAA that promised safe, clean air, the regulatory result of such statutory language was perverse. The first problem with symbolic laws is the most obvious: symbolic requirements cannot be implemented as written. Because many of the CAA's mandates are unrealistically harsh, EPA and states respond by quietly under-enforcing. This kind of under-enforcement—called "slippage"—inevitably ensures that the CAA's stringent standards will not be achieved.[108] Even worse, in the face of a CAA mandate perceived as absurdly strict and therefore politically untenable, EPA often resists implementation altogether.[109] Symbolic language sounds good to voters but makes for bad policy and encourages under-enforcement.

A second commonly cited weakness of symbolic language is that it damages transparency and accountability. Critics contend that the CAA's symbolic language focuses debate on artificial distinctions such as "clean" versus "dirty" air, while simultaneously driving the real policy-making underground.[110] When EPA considers cost quietly, as it did when setting the ozone and PM standards, candor is sacrificed and the public is shut out of participation in the difficult policy choices inherent in pollution control.[111] EPA's claims of compliance insulate its standards from challenge, but agency credibility suffers and regulated parties lose respect for the rule of law.[112]

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[105] Dwyer, *supra* note 1, at 233. Dwyer also commented that "[i]t is safer politically to vote 'for' safety, or better yet, an 'ample margin of safety,' and to let the agency or the courts deal with the unresolved legal, ethical, and political questions." *Id.* at 245.

[106] *See* Jonathan H. Adler, *The Fable of Federal Environmental Regulation*, 55 CASE W. RES. L. REV. 93, 101–04 (2004); *see also* John D. Graham, *The Failure of Agency Forcing: The Regulation of Airborne Carcinogens Under Section 112 of the Clean Air Act*, 1985 DUKE L.J. 100, 147 (1985) (concluding that the 1970 Clean Air Act was passed at a time of "lofty political symbolism" during which "[p]oliticians were engaged in fierce competition to take credit for passage of health-based environmental legislation").

[107] *See* Pierce, *supra* note 104, at 68 (arguing that "statutes [which] employ the rhetoric of health and safety absolutism . . . require the use of rhetorically attractive, but highly inefficient, command-and-control regulation").

[108] *See* Daniel A. Farber, *Taking Slippage Seriously: Noncompliance and Creative Compliance in Environmental Law*, 23 HARV. ENVTL. L. REV. 297, 319 (1999).

[109] Dwyer, *supra* note 1, at 234, 277–79; *see also* Graham, *supra* note 106, at 149 (describing open violations by EPA of certain strict CAA requirements).

[110] Dwyer, *supra* note 1, at 277; *see also generally* Farber, *supra* note 108.

[111] Coglianese & Marchant, *supra* note 9, at 1345–47.

[112] Feller, *supra* note 74, at 865.

The history of NAAQS implementation does confirm one facet of the critique: the CAA's symbolic goals have proven unachievable. Under the 1970 CAA, states were required to adopt state implementation plans ("SIPs") that would ensure attainment of the original, 1971 NAAQS by the mid-1970s.[113] Instead, persistent non-compliance led EPA to delay enforcement, and led Congress to roll back deadlines in the 1977 CAA amendments.[114] During the late 1980s, EPA generously approved another round of SIPs that made implausible claims to be sufficient to guarantee attainment.[115] The result was more violations and another deadline extension in the 1990 amendments.[116] Even today, large portions of the nation fail to meet existing NAAQS for standard air pollutants. In 2002, 146 million Americans lived in areas where the air failed to meet the NAAQS for one of the six criteria pollutants.[117] More than half of the 230 counties out of attainment at the time of the 1990 CAA amendments remained out of attainment twelve years later.[118] Thus thirty-four years after the initial Clean Air Act created the NAAQS system, much of the nation had yet to meet the CAA's plain NAAQS mandate.

3. Affirmation in the Courts

One reason these critiques of CAA symbolism have been voiced so persistently is the regularity with which courts have affirmed and enforced the CAA's symbolic mandates. To the dismay of critics, courts generally have rejected the many invitations by litigants and scholars to inject reason and candor into section 109 and other symbolic provisions of the CAA. As odd as it might seem for the Court to command the EPA to do something impossible, *American Trucking* merely re-affirmed a well-established interpretation of section 109: since 1980 courts have held that EPA has no discretion to consider costs when setting NAAQS.[119] Section 109 is not the only unrealistic CAA provision that courts have upheld; on the contrary, *American Trucking* is just one of a litany of cases enforcing impossible duties ensconced in the CAA.

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[113] Once EPA sets NAAQS for the criteria pollutants, the standards are implemented by the states through the adoption of SIPs, prescribing various emissions cuts within their defined "airsheds." *See* REITZE, *supra* note 15, at 58–61 (describing SIP process).

[114] Feller, *supra* note 74, at 829–31.

[115] Richard B. Stewart, *A New Generation of Environmental Regulation?*, 29 CAP. U. L. REV. 21, 55 (2001).

[116] Feller, *supra* note 74, at 829–31.

[117] EPA, LATEST FINDINGS ON NATIONAL AIR QUALITY: 2002 STATUS AND TRENDS 5 (2002), *available at* http://www.epa.gov/airtrends/aqtrnd02/2002_airtrends_final.pdf (last visited Oct. 1, 2005) [hereinafter EPA 2002 REPORT].

[118] *Id.*

[119] *See* Sunstein, *supra* note 11, at 3 (commenting that *American Trucking* "reaffirmed long-settled law to the effect that in setting national ambient air quality standards, the EPA is not permitted to consider costs"); *see also* Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d 1130, 1148 (D.C. Cir. 1980).

The 1976 case *Union Electric Corporation v. EPA*,[120] one of the earliest Supreme Court CAA decisions, is remarkable for its emphatic approval of the CAA's symbolic elements. *Union Electric* concerned EPA's enforcement of Missouri's SIP for the St. Louis area.[121] EPA notified Union Electric, a St. Louis power company, that its emissions were in violation of the SIP requirements.[122] In response, Union Electric sued EPA, claiming that the St. Louis SIP was technologically and economically infeasible.[123] The Court rejected this defense, noting that "Congress intended claims of economic and technological infeasibility to be wholly foreign to the Administrator's consideration of a state implementation plan."[124] The Court did not argue that the controls were feasible; it just argued that feasibility did not matter. The Court enforced the SIP despite its own admission that "Congress clearly contemplated that some [state implementation] plans would be infeasible when proposed."[125]

In *Alabama Power Company v. Costle*,[126] the D.C. Circuit rejected EPA's decision to exempt from certain CAA controls any stationary sources emitting under fifty tons of pollution per year. EPA again made a reasonable argument for the exemption. According to EPA, regulating such small sources would be unwieldy to enforce, would be exceedingly costly, and would yield limited benefit. The court dismissed EPA's argument, finding that the CAA "does not give the agency a free hand authority to grant broad exemptions."[127] The court held that EPA's "burden of justification . . . is especially heavy" when its rationale for not regulating is merely a "prediction of the difficulties of undertaking regulation."[128]

In *NRDC v. Reilly*,[129] NRDC challenged EPA's refusal to promulgate emission standards for certain light duty vehicles under CAA section 202(a)(6). EPA reasoned that it should not be forced to adopt the standards because the emissions control at issue would create a safety risk.[130] The D.C. Circuit did not dispute EPA's safety findings; it simply found EPA's safety concern irrelevant. In ruling in favor of NRDC, the court asserted that this CAA duty was "plain and unmistakable."[131]

Even where EPA offers a true "impossibility" argument against regulating, courts still have enforced the CAA as written. In the 2002 D.C.

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[120] 427 U.S. 246 (1976).
[121] *Id.* at 252.
[122] *Id.*
[123] *Id.* at 256.
[124] *Id.*
[125] *Union Elec.*, 427 U.S. at 269.
[126] 636 F.2d 323 (D.C. Cir. 1979).
[127] *Id.* at 354. *See also* Train v. NRDC, 421 U.S. 60, 86 (1975) ("Congress carefully limited the circumstances in which timely attainment and subsequent maintenance of these standards could be compromised.").
[128] *Ala. Power Co.*, 636 F.2d. at 359.
[129] 983 F.2d 259 (D.C. Cir. 1993).
[130] *See id*. at 266.
[131] *Id*.

Circuit case *Sierra Club v. EPA*,[132] the Sierra Club challenged EPA's approval of a deadline extension for three states' SIPs for the D.C. area.[133] The CAA only allows EPA to extend the 1999 statutory deadline in areas that have been classified as "severe nonattainment," a worse designation than D.C.'s "serious nonattainment."[134] The states wanted the extension, but they did not want to be required to implement stricter emissions standards that apply to severe nonattainment areas.[135] EPA acceded to the states' request, approving the deadline extension without mandating the stricter emissions controls.

In *Sierra Club*, EPA had a powerful impossibility argument against enforcing the CAA as written. So much pollution migrates to D.C. from upwind states that it is literally impossible for the D.C. area to meet the national standards through its own restrictions. D.C. could not comply with the ozone NAAQS even if the D.C. area states implemented the stricter controls required in severe nonattainment areas.[136] EPA found it unreasonable to force the states to meet a deadline that was unachievable through no fault of the states themselves.[137] In court, EPA argued that "[a]s a matter of logic and statutory structure, Congress almost surely could not have meant to require the Agency to treat the Washington Area as one of severe nonattainment merely because its attainment has been temporarily stalled due to transported pollution."[138] EPA's reasonable argument for relaxing its CAA duty lost without dissent. The panel said tersely that EPA's logic-and-structure argument "does nothing to persuade us."[139] Not only did the court enforce the CAA's clear terms and reject the deadline extensions, it made no effort to explain how EPA should respond to the impossible situation created by transboundary pollution.[140]

C. The Merits of Overstatement: Defending CAA Symbolism

The critics are likely correct that political considerations played a central role in Congress's decision to include symbolic provisions in the CAA. But if symbolism were merely lawmaking gone awry, we would expect courts to reign in that error, either by interpreting the provisions more reasonably or by striking down the offending provisions and requiring a

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[132] 294 F.3d 155 (D.C. Cir. 2002).

[133] *See id*. The CAA explicitly requires all states to adopt SIPs sufficient to attain each NAAQS by 1999, but the states sought an extension until 2005, arguing that they were incapable of achieving the 1999 target. The term "states" is used for convenience; the three jurisdictions involved were actually Virginia, Maryland, and the District of Columbia. *Id*. at 158.

[134] Sierra Club v. EPA, 294 F.3d at 158–59.

[135] *See id.*

[136] *See id.*

[137] *See id.* at 161.

[138] *Id.* (citations omitted).

[139] Sierra Club v. EPA, 294 F.3d at 158–59.

[140] *Id.* at 164.

congressional rewrite.[141] On the contrary, courts have repeatedly recognized the instrumental value of symbolic legislation. Precisely because their terms are categorical and aspirational, the symbolic sections of the CAA function as a "thumb on the scale" in favor of more rather than less pollution control. Viewed in this way, CAA symbolism, though imperfect, is a rational legislative approach to states' and industries' persistent resistance to cleaning the air.

1. Symbolism as a Precommitment Strategy

The symbolic language in the CAA was Congress's way to tell EPA, the states and polluters as emphatically as possible: "we mean it." Certainly a tough statute appeals to voters worried about pollution. But to conclude cynically that CAA symbolism was the result of nothing more than naked politics ignores the possibility that such language was also meant to serve—and indeed has served—a legitimate regulatory purpose. As one critic acknowledged, the CAA "means less 'do it this way' than 'we're serious, do something now.'"[142]

At least in theory, the instrumental value of an overstated mandate can be shown by an analogy to the Constitution's protection of free speech.[143] By the literal words of the First Amendment, "Congress shall make no law . . . abridging the freedom of speech." If this command were enforced literally, an absurd range of laws would be found unconstitutional. We have all sorts of laws that restrict freedom of speech—laws protecting copyrights, laws against libel and slander, laws regulating the broadcast media and campaign contributions, laws criminalizing perjury, fraud and conspiracy.[144] The literal language of the First Amendment would appear to make all of these laws illegal. Yet the fact that we do not interpret the First Amendment in this unyielding fashion does not prove that the Framers erred. By overstating the constitutional prohibition on restrictions of free speech, the Framers purposely impeded future lawmakers, knowing that those lawmakers would be tempted to ignore the First Amendment if it were not very difficult to do so.

There are obvious differences between a constitutional provision and a statutory one. Even so, the analogy is apt in the sense that both CAA symbolism and First Amendment absolutism tilt later lawmaking in the direc-

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[141] *See, e.g.*, Huffman v. W. Nuclear, Inc., 486 U.S. 663, 673 (1988) (stating that statutes should not be interpreted "to impose restrictions that [are] somehow calculated to serve [an] unattainable goal").

[142] Dwyer, *supra* note 1, at 286.

[143] *See* Amy Sinden, *In Defense of Absolutes: Combating the Politics of Power in Environmental Law*, 90 IOWA L. REV. 1405, 1476–80 (2005) (comparing the First Amendment's absolutism to environmental laws and arguing that in practice the absolutism functions mostly as a "weighting preference").

[144] *See* Dun & Bradstreet, Inc. v. Greenmoss Builders, Inc., 472 U.S. 749, 758 n.5 (1985) (listing numerous types of speech that are accorded little or no First Amendment protection).

tion preferred by the drafters of the original requirements. Just as CAA symbolism shifts the balance toward combating air pollution and against excuse-making, the categorical language of the First Amendment tilts our laws in favor of protecting speech. The unyielding language cannot be and is not interpreted literally, but it still serves a critical and effective instrumental purpose.

Put another way, the CAA, like the Constitution, uses symbolism as a precommitment strategy. "Precommitment" explains why a democratic nation like ours would bind itself to a constitution that is notoriously hard to amend.[145] As Stephen Holmes argued in his seminal article, "[p]recommitment is justified because, rather than merely foreclosing options, it makes available possibilities which would otherwise lie beyond reach."[146] A rough analogy is Ulysses tying himself to the mast in order to hear the sirens. Ulysses wants to enjoy the siren song, but he knows that if he does not restrict his freedom, he will be unable to resist them.[147] Tying himself to the mast precommits him not to swim after the sirens, thereby allowing him to do something he otherwise could not.

Like the First Amendment and other constitutional provisions, CAA symbolism prevents later actors—in this case EPA, states, and the courts—from defeating measures to reduce air pollution through the ongoing politics of regulation. CAA symbolism weakens some of the most common arguments against forceful implementation: economic pragmatism, scientific uncertainty, and technical infeasibility. By making these arguments difficult to invoke, the CAA's symbolic provisions aspire to focus the efforts of regulators and regulated parties on implementing pollution controls rather than on continually re-hashing the debate over the CAA itself.[148]

2. Symbolism and Public Choice Theory

It is not difficult to understand why lawmakers crafting a statute to mitigate air pollution might be especially interested in employing a precommitment strategy of overstated mandates. The practical need for a "thumb on the scale" in favor of stricter pollution control arises from the enormous power asymmetries between the supporters and the opponents of clean air regulation. As public choice theory teaches, both lawmakers and agencies tend to neglect general interest statutes because the beneficiaries are diffuse and the opponents are concentrated and powerful.[149] These politi-

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[145] Stephen Holmes, *Precommitment and the Paradox of Democracy*, *in* CONSTITUTIONALISM AND DEMOCRACY 195 (Jon Elster & Rune Slagstad eds., 1988).

[146] *Id.* at 226.

[147] *Id.* at 196.

[148] *But see id.* at 218 ("If the ground rules were placed beyond easy reach . . . aggrieved parties would be encouraged to husband their resources."); *id.* at 220 ("A general uncertainty would discourage every useful effort of steady industry pursued under the sanction of existing laws.").

[149] William N. Eskridge, Jr., *Politics Without Romance: Implications of Public Choice*

cal imbalances distort regulatory intervention even after Congress musters the political will to adopt a comprehensive public health statute.[150] During the enforcement stage, regulated parties pressure not only Congress, seeking dilution of the most stringent aspects of the statute, but also agencies and the states, encouraging them to under-enforce key regulatory provisions. Industries often "capture" the agencies intended to regulate them, ensuring that regulations reflect the interests of the regulated parties and not the public.[151] These widely recognized biases against broad public interest regulation lead to slippage and noncompliance.

The political reality of air pollution control presents exactly the conditions under which public choice theorists would predict under-regulation. The general public benefits from the CAA, while extremely powerful industrial interests bear the overwhelming majority of the costs of compliance with the CAA.[152] The 1970 and 1977 Congresses that passed the key provisions of the CAA were cognizant of the massive and ongoing resistance to strict air pollution regulation.[153] Experience had also shown that the attacks on the CAA most frequently arrived in a fairly predictable form: that of industry declaring its desire to clean the air in the abstract, but insisting that the CAA simply costs too much given the uncertainty of the science proving harm from pollution.

Congress believed that in light of the political strength of those resisting regulation, a statute that balanced costs and benefits explicitly was unlikely to offer the desired level of protection.[154] The CAA's symbolic mandates therefore reflect Congress's "concern that absent an unequivocal (if somewhat idealistic) national policy to eliminate risks . . . the compromises characteristic of rulemaking and enforcement would undermine the goal of protecting public health."[155] This is why CAA provisions con-

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Theory for Statutory Interpretation, 74 VA. L. REV. 275, 322 (1988) (stating that these "primary legislative dysfunctions identified by public choice theory . . . are borne out by more traditional institutional process studies and theories").

[150] For a discussion of how Congress ever musters the will to pass such statutes in the face of grossly asymmetrical political power aligned against regulation, see *id.*

[151] *Id.* at 323; *see also* Sinden, *supra* note 143, at 1441 ("[I]t has long been recognized that agency decision making has the capacity to be grossly distorted by the power imbalance between regulated industry and regulatory beneficiaries.").

[152] *See* Sinden, *supra* note 143, at 1436–37 ("Environmental disputes involve asymmetries of power that consistently skew government decision making in favor of less stringent environmental regulation.").

[153] *See supra* notes 87–90 and accompanying text.

[154] Daniel A. Farber, *Rethinking Regulatory Reform After American Trucking*, 23 PACE L. REV. 43, 78 (2001); *see also* Dwyer, *supra* note 1, at 248 (Congress believed "not just that cost-sensitive standards are inherently weaker than health-based standards, but that explicit consideration of costs overemphasizes costs and underemphasizes health concerns.").

[155] Dwyer, *supra* note 1, at 247; *see also* Henderson & Pearson, *supra* note 3, at 1429–30:

> To the extent that forceful statements of policy contained in such commands provide a moral backdrop against which to measure and assess (and therefore gradually to influence) conduct affecting the environment, legal rules couched in essen-

sistently instruct EPA to err on the side of over-protection and try to preempt later actors from invoking cost and uncertainty as a rationale for delay.[156] As the House Committee reviewing the 1977 CAA Amendments explained, "[b]y allowing regulation in the absence of proof of actual harm, Congress has made a policy judgment in favor of overprotection rather than underprotection."[157]

The critics calling for a rational and entirely honest CAA often underplay the political realities of implementing the CAA's contentious and costly regulatory regime. While critics are quick to view Congress's adoption of overstated CAA provisions in realist terms, they seem to idealize the administrative law process in general. The critics propose that the CAA be amended to permit cost-benefit balancing and criticize the Court for not articulating a more systematic, rational approach to standard-setting.[158] But no matter what approach the CAA mandates, interest groups will continue to work strenuously to swing regulation in their favor.[159] While it may appeal to technocratic notions of agency decisionmaking, cost-benefit analysis and other supposedly candid approaches to regulation are highly manipulable in practice.[160] Political considerations inevitably color any analysis of proposed NAAQS standards and their costs and benefits, and often the suggestion that such approaches are objective only serves to hide the political decisions embedded in the numbers and analysis.[161]

Implementing a symbolic mandate involves a measure of evasiveness. In a perfect world, the text of the CAA would require exactly what Congress wanted: a forceful yet balanced approach to reducing air pollution. EPA would implement that mandate precisely on its face, and courts would

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tially aspirational terms may constitute a necessary and important component of the overall program of federal environmental regulation.

Id.

[156] *See* Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d 1130, 1153 (D.C. Cir. 1980); H.R. REP. NO. 95-294, at 115 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1194 ("When information on the nature of the hazard is uncertain or unknown, courts and agencies should encourage the use of the safest, most conservative course of action. They should not misread lack of knowledge about a potential hazard as proof that the hazard is slight or does not exist.") (internal citations omitted).

[157] H.R. REP. NO. 95-294, at 45 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1123 (internal citations omitted).

[158] *See, e.g.*, Pierce, *supra* note 10, at 1273 (criticizing *American Trucking* for failing "to enhance candor and transparency" by acknowledging and endorsing EPA's consideration of cost); Coglianese & Marchant, *supra* note 9, at 1356–57 (advocating that Congress amend the CAA in response to *American Trucking* in order to "provide EPA with a preferred policy approach, such as by directing the Agency to balance benefits and costs").

[159] *See generally* Einer R. Elhauge, *Does Interest Group Theory Justify More Intrusive Judicial Review?*, 101 YALE L.J. 31, 32 (1991) (describing interest group theory and noting that "[a]gencies tend to be captured by the firms they regulate and thus enact regulations to benefit those firms even though the regulations are inefficient and exploit consumers").

[160] Sinden, *supra* note 143, at 1452–59; David M. Driesen, *Distributing the Costs of Environmental, Health, and Safety Protection*, 32 B.C. ENVTL. AFF. L. REV. 1, 85–90 (2005).

[161] *See* Driesen, *supra* note 160.

judge the text entirely on its own terms. But the idea that explicit cost-benefit balancing or some other "more rational" approach would necessarily increase transparency is oversimplified. More importantly, it appears that in adopting a symbolic approach, Congress chose to sacrifice a measure of transparency in order to counterbalance the anticipated dilution of the statute's mandates.

3. The Real World Success of CAA Symbolism

Looking back over more than thirty-five years of the CAA's implementation, the decision to include symbolic mandates appears prescient. Congress was obviously correct to foresee massive resistance to implementation. The industry challenge to the standards at issue in *American Trucking* is but one of many examples. As far back as 1975, for example, *Business Week* declared that "[a]lmost from the day it was enacted, the 1970 Clean Air Act has been under relentless attack by businessmen who believe that the law's standards are needlessly tough, its abatement timetables too short, and its costs too high."[162] Unsurprisingly, the industries regulated most under the CAA continued their fight against pollution control even after the statute was enacted—a fight that, as Part III illustrates, continues today.

The real world results also tend to confirm Congress's intuition that cost predictions are often overblown and that a supposedly "balanced" CAA might have led to less pollution control than would be in the public interest. One economic study of a dozen major environmental programs found that in all twelve cases, both industry and the government overestimated the ultimate costs of compliance.[163] In all but one case, the contemporary cost estimates were more than one hundred percent greater than the reality.[164] The study concludes that costs are overestimated for two principle reasons. The first relates to technology-forcing: cost estimates made at the time programs are initiated cannot forsee the ways in which regulated parties will innovate to reduce the costs of compliance.[165] The second reason is slippage: especially in the case of categorically phrased environmental

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[162] *The Clean Air Will Keep Its Teeth*, BUS. WK., July 14, 1975, at 86.

[163] Eban Goodstein, *Polluted Data*, AM. PROSPECT, Nov./Dec. 1997; *see also* Thomas O. McGarity, REINVENTING RATIONALITY: THE ROLE OF REGULATORY ANALYSIS IN THE FEDERAL BUREAUCRACY 131 (1991).

[164] *Id. See also* GREGG EASTERBROOK, A MOMENT ON THE EARTH: THE COMING AGE OF ENVIRONMENTAL OPTIMISM 210 (1995) ("Most environmental initiatives of the past seemed expensive and questionable at the time, and today every one of them appears a bargain in retrospect. Looking back on the present a few decades hence, society will consider every environmental program running now to have been a bargain, and wish more programs had been started sooner."); Frank Ackerman & Lisa Heinzerling, *Pricing the Priceless: Cost-Benefit Analysis of Environmental Protection*, 150 U. PA. L. REV. 1553, 1560–61 (2001) ("Scarcely a congressional hearing on environmental policy occurs in which fantastic estimates of the costs of federal regulation do not figure prominently.").

[165] Goodstein, *supra* note 163 ("[B]asing cost predictions on scenarios that assume no technical evolution is guaranteed to produce gross overestimates.").

statutes, "legislation is never as draconian as it appears on paper."[166] Many observers have acknowledged that the CAA and other environmental statutes have been undeniably successful even by the standards of cost-benefit analysis.[167]

Critics may claim that the CAA could be more efficient or more effective, but it is nearly impossible to deny that overall, the CAA has been a resounding success, symbolism and all. Since 1970, the economy has grown 164%; yet emissions of the six pollutants for which NAAQS have been set have decreased 48%.[168] EPA's 1997 analysis of the CAA estimated that between 1970 and 1990, the total monetized benefits of the CAA were an incredible $22.2 trillion, compared to direct costs of $500 billion.[169] This calculation included only human health benefits and did not estimate less tangible benefits to ecosystems or aesthetics. More recently, the Office of Management and Budget ("OMB") calculated that the annual benefits of the CAA in 2003 alone were at least $120 billion, five to seven times greater than the costs of compliance.[170] The net benefits of the CAA accounted for more than seventy percent of the total net benefits OMB ascribed to all the regulations it analyzed.

D. Implementing an Overstated Mandate: CAA Symbolism and Chevron *Deference*

Even if we understand symbolism as a "thumb on the scale" in favor of regulation, the critics are correct that *American Trucking* did not explain how the CAA's impossible mandates can or should be implemented. That question has been addressed, however, by the doctrine of *Chevron* deference. The CAA creates a functional air pollution control regime because only certain essential elements of the CAA are symbolic and action-forcing. In general, these requirements appear at the front end, triggering the duty to act, as opposed to at the back end, where detailed CAA provisions define precisely how the duty should be performed. While it is not always easy to distinguish the front and back ends of the CAA, the design works by preventing arguments against any action at all, while simultaneously allowing EPA broad discretion in exactly how the CAA is implemented. This sec-

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[166] *Id.*

[167] *See, e.g.*, CASS R. SUNSTEIN, THE COST-BENEFIT STATE: THE FUTURE OF REGULATORY PROTECTION 3–4 (2002); *see also* Statement of Solicitor General Seth Waxman, Transcript of Oral Argument at 37, Am. Trucking Ass'ns, Inc. v. Browner, 530 U.S. 1202 (2000) (No. 99-1426) ("EPA has always done cost estimates at the time that it promulgates the criteria documents . . . . [L]ooking retrospectively, every single one of those cost estimates has vastly overstated the actual cost/benefit analysis of what it took to meet that level.").

[168] EPA 2002 REPORT, *supra* note 117, at 1.

[169] U.S. EPA, BENEFITS AND COSTS OF THE CLEAN AIR ACT, 1970 TO 1990, at Executive Summary 8 (Oct. 1997), *available at* http://www.epa.gov/air/sect812/copy.html (last visited Dec. 1, 2005) (on file with with the Harvard Environmental Law Review).

[170] *See* Eric Pianin, *U.S. Study Finds Environmental Rules Well Worth Their Costs*, ALBANY TIMES UNION, Sept. 27, 2003, at A3.

tion explores how the CAA's symbolism influences the interpretation and enforcement of the CAA's detailed regulatory regime. This section also argues that in *American Trucking* the Court chose not to explain how symbolism works because doing so would weaken the efficacy of the symbolic mandate.

1. Back-End Pragmatism and Chevron *Step Two*

Since *Chevron U.S.A. v. NRDC*, deference has been the defining principle for judicial oversight of administrative agencies.[171] As *Chevron* explained, an agency implementing a given statutory program always engages in policy-making. *Chevron* says that courts reviewing agency implementation of a statute must perform a two-step analysis.[172] Step One asks whether the statute itself clearly answers the question before the court. If so—if the statute is unambiguous and congressional intent is therefore clear—the agency has no discretion to diverge from the choice Congress made.[173] However, if the statute is ambiguous on the issue before the court, the court proceeds to *Chevron* Step Two. In the case of such a gap left open by Congress, an agency will inevitably interpret the statute with policy goals in mind. Under such circumstances the court's job is not to impose its own understanding of the statute on the agency; rather, judicial review involves only asking whether the agency interpreted the law reasonably.[174]

Because EPA's choices as to how the CAA's back end provisions should be implemented will receive deference, CAA symbolism does not prevent pragmatic and flexible implementation of the entire CAA. *Chevron* itself, after all, is a CAA case, and it illustrates the wide latitude the EPA receives on most questions of CAA interpretation. *Chevron* reviewed EPA's definition of "stationary source," a term that the CAA does not define.[175] EPA's "bubble concept" provided that an entire plant could be considered a single stationary source, thereby exempting new equipment from stringent CAA requirements so long as any new emissions were offset by reductions from elsewhere under the "bubble."[176] NRDC challenged the bubble concept as contrary to the overall intent of the CAA to improve air quality as fast and as much as possible, but the Court disagreed.[177] Because the CAA is not clear on the meaning of "stationary source," the Court placed the question in *Chevron* Step Two.[178] *Chevron* found the bubble concept to be

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[171] *See* Chevron U.S.A., Inc. v. NRDC, 467 U.S. 837, 843 (1984).
[172] *Id.* at 842–43.
[173] *Id.*
[174] *Id.*
[175] *Id.* at 840.
[176] *See Chevron*, 467 U.S. at 840.
[177] *Id.* at 845.
[178] *Id.* at 842 ("The basic legal error of the Court of Appeals was to adopt a static judicial definition of the term 'stationary source' when it had decided that Congress itself had not commanded that definition.").

"a permissible construction of the statute which seeks to accommodate progress in reducing air pollution with economic growth."[179]

NRDC lost in *Chevron* because it tried to spin the CAA's symbolism as an overarching requirement that extends to every part of the CAA. This is not how the symbolism is enforced in practice. The CAA would become dysfunctional if its symbolic elements were interpreted as a ubiquitous congressional intent to read all parts of the CAA in favor of the strictest regulation possible. Instead, *Chevron* found that "[t]he general remarks [in the CAA's legislative history] pointed to by respondents were obviously not made with this narrow issue in mind and they cannot be said to demonstrate a Congressional desire" to define "stationary source" to preclude the more flexible bubble concept.[180]

The key role played by the CAA's symbolism, then, is not to prevent all EPA flexibility, nor to instruct courts never to defer to EPA policy-making when EPA implements the CAA. Rather, Congress chose by conscious design to strengthen specific provisions of the CAA by overstating the mandate imposed upon EPA and regulated parties. The CAA's symbolism is intended to prevent a reluctant EPA or other challengers to air pollution control from invoking a predictable short list of excuses, either in order to water down the CAA beyond recognition or to resist acting altogether.

2. *Front-End Symbolism and* Chevron *Step One*

While EPA receives deference when it interprets and implements the back-end provisions of the CAA, EPA receives no deference when it applies the CAA's clear symbolic mandates. In *Chevron* terms, the Court in *American Trucking* placed section 109's symbolic mandate—the unrealistic demand that EPA set standards without regard to cost—firmly within *Chevron* Step One. The Court did not merely reject *requiring* EPA to consider cost when setting NAAQS; it held that EPA *has no discretion* to consider costs. According to the Court, the CAA is clear on the issue of cost and allows no agency flexibility. The Court's choice not only to affirm section 109's cost-free mandate but to find that the provision entitles EPA to no deference is the clearest indication that the Court approved of symbolism as an instrumental tactic. The symbolic mandate in section 109 binds EPA precisely because EPA cannot appeal to *Chevron* deference and shirk its duty through flexible interpretation of the statute.

The Court easily could have upheld both the CAA generally and EPA's ozone and PM standards while placing the question of whether EPA may consider cost when setting NAAQS into *Chevron* Step Two. Such a ruling would have still allowed the Court to approve of EPA's choice to ignore cost if it so chose, and the D.C. Circuit might have come to the same con-

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[179] *Id.* at 866.
[180] *Id*. at 862.

clusion it did on remand, i.e., that the ozone and PM standards at issue were reasonable. Nevertheless, such a ruling would have left room for EPA to consider cost in future standard-settings.[181] This alternative would not have addressed the fundamental impossibility of ignoring cost and therefore still would have involved some degree of obfuscation, but the Court would have opened the door for EPA to be more honest in the future. In its next NAAQS rulemaking, EPA would have had the flexibility to admit that cost entered into its equation and to discuss that consideration more openly.

Had the *American Trucking* Court found the necessary statutory ambiguity to trigger *Chevron* Step Two, it could have deferred to EPA even more fundamentally, admitting openly that the CAA asks for more than EPA can deliver. Such a decision would have admitted that while the CAA text and history might suggest otherwise, considering cost is acceptable because it is inevitable. Speaking frankly about the purpose behind symbolic legislation, the Court then could have explained Congress's desire to write the CAA in such a way as to motivate strong action by EPA. In light of the infeasibility of actually ignoring cost, the Court could have essentially reformulated EPA's NAAQS duty on pragmatic grounds.[182] By explaining the real-world function of the CAA's symbolic fiction, the Court might have steered EPA in turning the symbolic language into a realistic mandate.

This is the approach to the CAA some critics of *American Trucking* were hoping for. Cass Sunstein, for example, called the decision a "remarkably thin and unhelpful discussion of the meaning of the Clean Air Act."[183] According to Sunstein, the Court got the statutory interpretation part right—the CAA clearly tells EPA to ignore cost when setting NAAQS.[184] But the Court should have at least tried to explain how EPA is supposed to do what by the statute's terms is simply impossible.

The weakness of Sunstein's critique is his failure to recognize that the Court's decision not to elaborate more explicitly on the role and purpose of symbolism in the CAA is consistent with symbolism itself. The Court's affirmation of the CAA's symbolism is made emphatic by the Court's very silence. If the *American Trucking* Court acknowledged the role that cost inevitably plays in EPA's standard-setting, it would have risked

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[181] Sunstein, *supra* note 11, at 16 ("At a minimum, the Court might plausibly have said that in deciding what margin of safety is 'adequate,' the EPA is permitted to take account of costs, not merely benefits.").

[182] *See* Dwyer, *supra* note 1, at 306 (calling this approach "instrumental interpretation"); *cf.* Indus. Union Dep't, AFL-CIO v. Am. Petroleum Inst., 448 U.S. 607, 642 (1949) (plurality opinion) ("Benzene Case") (reasoning that despite OSHA's categorical mandate, Congress must have only required regulation to remove "significant risks" as opposed to risks of any size).

[183] Sunstein, *supra* note 11, at 4. Sunstein agreed with the Court that the best interpretation of the CAA is that it forbids EPA from considering cost when setting NAAQS. *Id*. at 16. But he lamented the Court's "formalistic" and "unimaginative" decision for not explaining better how that mandate should be understood. *Id.* at 2, 15.

[184] *See id.* at 16.

diluting at least some of the instrumental value of the CAA's symbolic mandate. At least by implication, such a decision would have opened the door to cost-consideration, weakening the CAA's "thumb on the scale" in favor of regulation. The Court faced an analogous dilemma to that faced by the Congress that enacted the CAA: the fear that a forthright acknowledgement of cost-benefit balancing would undermine Congress's efforts to tilt standard-setting in the direction of greater environmental protection.

The Court seems to have been convinced not only that Congress knowingly intended the CAA to be symbolic, but also that Congress had good reason for making it so and that the arrangement, though evasive, works as-is. Even if *American Trucking* is silent on the matter, comments by individual justices during oral argument suggest that the court knew it was approving the symbolic role of the CAA. Justice Breyer, for example, suggested that the technology-forcing nature of the CAA made it dangerous to consider costs explicitly.[185] Justice Ginsburg protested that including costs explicitly would create "a morass," slowing action and opening clean air regulation to attacks Congress wished to avoid.[186] In response to the contention that the CAA was unworkable, Justice Rehnquist remarked testily, "you say you don't know how we can live with this kind of a regime. Well, we have lived with it for 20 years . . . ."[187] The unique empirical success of the CAA may help explain the Court's reluctance to rock the boat.

Sunstein praises Justice Breyer's concurrence for its pragmatism and calls it an "unambiguous rejection of 1970s environmentalism."[188] But Sunstein reads more into Justice Breyer's concurrence than is actually there. Despite Sunstein's claims to the contrary, Justice Breyer affirmed the CAA's symbolism almost as strongly as the majority, and he did not acknowledge symbolism with the frankness Sunstein would have preferred. Justice Breyer joined most of the majority opinion, and his concurrence provided a parallel reading of the CAA's legislative history, finding that Congress had forcefully rejected any and all cost consideration in section 109. Like the majority, Justice Breyer argued that EPA has no discretion on the cost issue, and he also pretended that such health-only standard setting can be done.[189] The Benzene case that Justice Breyer relied upon for his pragmatic view that "safe does not mean risk-free" is an instructive comparison. In that case, not only did the plurality read OSHA not to require total workplace safety, they found within the OSHA statute the au-

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[185] Transcript of Oral Argument at 11–12, Am. Trucking Ass'ns, Inc. v. Browner, 530 U.S. 1202 (2000) (No. 99-1426) ("What I don't really see is how you [consider costs] if the statute is technology forcing. I mean, because you wouldn't know really what the costs are that are being foreseen with the technology that doesn't yet exist.").

[186] *Id.* at 12–13.

[187] *Id.* at 20.

[188] Sunstein, *supra* note 11, at 4.

[189] *See supra* notes 63–82.

thority for the government to compare costs and benefits when setting safety standards.[190] However, Breyer took the Benzene Case only part way and refused to say openly that EPA must consider costs when it adopts NAAQS.

3. Combining Symbolism and Pragmatism

The CAA is functional because very little of what the CAA requires is impossible or unrealistic; indeed, the Supreme Court has called the CAA "detailed, technical, complex, and comprehensive."[191] The symbolic requirements include EPA's duty to set health-only standards with an adequate margin of safety, the requirement that EPA act regardless of scientific uncertainty, and requirements that EPA and the states adhere to ambitious time tables.[192] In these cases, Congress intended to precommit EPA and regulated parties to act rather than not, hoping to shore up a wall against the usual suspects of challengers arguing against doing anything at all to prevent air pollution. Arguments such as "it's too expensive," "the problem can't be solved," "we need more time," or "the science is too uncertain" are precisely the types of excuses that Congress intended to preempt.

Under *American Trucking*, the CAA requires an unusual approach to judicial review. Explicitly, a court should affirm the CAA's symbolism in a formal and legalistic fashion.[193] The court forces the agency to comply with the symbolic mandate as written, preventing the agency from refusing to act at all. Once the agency attempts to comply with the symbolic mandate, however, a court has to be more flexible, for the simple reason that the agency cannot literally meet the symbolic mandate. In the case of the PM and ozone standards, *American Trucking* forcefully upheld the symbolic mandate, requiring that EPA justify its standards with an exhaustive review of health and welfare and without explicit reference to cost. The Court adhered to the CAA text and its congressional intent, paying no heed to the real world difficulty of implementing section 109 as written. Yet on remand, the D.C. Circuit acted pragmatically by accepting EPA's implementation of the mandate. The court found EPA's methodology reasonable even though it involved some fudging[194]—the court accepted EPA's unrealistic assertion that it had strictly adhered to section 109 and ignored

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[190] Indus. Union Dept., AFL-CIO v. Am. Petroleum Inst., 448 U.S. 607, 644 (1980). Section 6(g) of OSHA provides that "[i]n determining the priority for establishing standards under this section, the Secretary shall give due regard to the urgency of the need for mandatory safety and health standards for particular industries, trades, crafts, occupations, businesses, workplaces or work environments." *Id.* (quoting OSHA § 6(g), 29 U.S.C. § 655(g) (2000)).

[191] Chevron U.S.A., Inc. v. NRDC, 467 U.S. 837, 848 (1984).

[192] These symbolic requirements are explored in greater detail in Part III, *infra*, in the context of how they should be applied to carbon dioxide.

[193] *See* Sunstein, *supra* note 11, at 2–4 (describing the Court's approach in *American Trucking* as such).

[194] *See supra* notes 57–61 and accompanying text.

cost. Nevertheless, by attempting to ignore cost, EPA guaranteed that health and welfare would be its preeminent criteria as intended by section 109. Thus the D.C. Circuit rightly approved of the standards because EPA had set the NAAQS according to the CAA's symbolic mandate—with a "thumb on the scale" in favor of regulation.[195] Where EPA in good faith follows the symbolic mandate as much as possible, courts properly defer to EPA because the agency's deception is the deception Congress tacitly approved by knowingly adopting a symbolic mandate.

Normally, where a particular reading of a statute would require the impossible, a court would interpret the statute to mean something else. The Supreme Court has held, for example, that statutes should not be read to authorize an agency "to impose restrictions that [are] somehow calculated to serve [an] unattainable goal."[196] The CAA is different because it requires the impossible on purpose, by Congressional design. Where Congress has deliberately written a symbolic provision, the Court enforces the mandate as written, allowing the agency to quietly resolve the practical problems symbolism creates.[197] So long as the CAA commands clearly, EPA cannot shirk its duty by protesting that what the CAA commands is not literally possible. Only when the EPA has accepted the duty to act will the court grant EPA deference in its interpretation of specific statutory provisions.

III. Applying a Symbolic CAA to Global Warming

In the more than thirty-five years since the original CAA was enacted, EPA has never invoked the CAA to regulate CO_2, the primary cause of global warming.

In 2003, despite the growing chorus of voices demanding action on global warming, EPA rejected a petition for CO_2 rulemaking. Two years later, the D.C. Circuit approved EPA's decision in *Massachusetts v. EPA*.[198] According to the court, EPA acted within its discretion in making "policy judgments" against CO_2 regulation.[199]

This Part criticizes *Massachusetts v. EPA* as a misapplication of the CAA's symbolic mandates. In electing not to act, EPA relied upon precisely the categories of excuses foreseen and preempted by the symbolic

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[195] *American Trucking* and the D.C. Circuit's decision on remand function much like the presumption in favor of environmental protection advocated by Daniel Farber. Daniel A. Farber, Eco-Pragmatism: Making Sensible Environmental Decisions in an Uncertain World 11–14 (1999) ("[I]n interpreting environmental statutes, courts should follow a 'green' canon of interpretation, constructing ambiguous statutes in favor of as much environmental protection as is reasonably feasible.").

[196] Huffman v. W. Nuclear, Inc., 486 U.S. 663, 673 (1988).

[197] *Cf.* Tenn. Valley Auth. v. Hill, 4347 U.S. 153 (1978) (enforcing the literal mandate of the Endangered Species Act).

[198] 415 F.3d 50 (D.C. Cir. 2005).

[199] *Id.* at 58.

terms of the CAA: the science is uncertain; the cost is too high; the technology does not exist. While the structure of the CAA is imperfect for regulating CO_2, a certain degree of imperfection is inherent in implementing the CAA's overstated mandates. Despite EPA's loud protestations to the contrary, a functional regime to regulate CO_2 under the CAA could feasibly be established. The decision in *Massachusetts v. EPA* undermines the CAA's symbolic intent by permitting EPA to forego regulation of any kind, despite the fact that the threat posed by CO_2 falls well within the CAA's statutory framework.

The intense political resistance to addressing global warming presents an excellent example of the kind of power asymmetries that Congress thought justified the CAA's symbolic mandates. The CAA's symbolism has not proven sufficient to force action. However, because the reasoning in *Massachusetts v. EPA* was sparse and the court was deeply split, the implications of the case remain ambiguous, and the CAA's symbolic elements may yet retain their instrumental value.

A. CAA Authority To Regulate Carbon Dioxide Emissions: 1998 to 2005

EPA has never regulated CO_2, the principal cause of global warming. However, EPA has issued conflicting opinions on whether the CAA grants it authority to act. This section reviews EPA's conflicting opinions on its own authority over CO_2 from 1998 to the present, concluding with the arguments EPA presented to the D.C. Circuit in *Massachusetts v. EPA* and a summary of the holding in that case.

1. The Clinton EPA: Finding Statutory Authority Under the CAA To Regulate Carbon Dioxide Emissions

Both of the CAA's primary mandates—Title I, which addresses stationary sources of air pollution, and Title II, which addresses motor vehicles—offer authority for the regulation of CO_2. In 1998, General Counsel of the EPA Jonathan Cannon stated as much in the first official EPA position on CO_2's CAA status.[200] Gary Guzy, Cannon's successor as EPA General Counsel, elaborated on the "Cannon Memo" in Congressional testimony and in letters to members of Congress.[201] Together, the Cannon memo and Guzy's

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[200] U.S. EPA, EPA's Authority to Regulate Pollutants Emitted by Electric Power Generation Sources, Memorandum from Jonathan Z. Cannon, General Counsel (Apr. 10, 1998) [hereinafter Cannon Memo].

[201] *Is Carbon Dioxide (CO_2) a Pollutant or Does Environmental Protection Agency (EPA) Have Power to Regulate it?: Joint Hearing Before the Subcomm. on National Economic Growth, Natural Res. and Regulatory Affairs of the H. Comm. on Reform and the Subcomm. On Energy and the Env't of the H. Comm. on Science*, 106th Cong. (1999) (statement of Gary Guzy, General Counsel U.S. EPA) [hereinafter Guzy Testimony]; Letter from Gary S. Guzy, EPA General Counsel, to Representatives David M. McIntosh and Ken Calvert (Dec. 1, 1999) (on file with the Harvard Environmental Law Review) [hereinafter Guzy Letter 1];

statements outlined the basic legal argument in favor of finding CO_2 subject to the CAA.

American Trucking and Part II of this Article addressed CAA section 109, the heart of Title I of the CAA. As discussed above, section 109 instructs EPA on how to set NAAQS for the so-called "criteria" pollutants.[202] To trigger section 109's requirements, two conditions must be met: first, EPA would have to find that CO_2 is an "air pollutant;" second, EPA would have to list CO_2 as a "criteria" pollutant.[203] A simple overview of the text of Title I makes it very difficult to see how EPA can decline to list CO_2 on either of these grounds.

On its face, the CAA's expansive definition of "air pollutant" seems easily to encompass CO_2. That definition reads in relevant part that, "The term 'air pollutant' means any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air."[204] As the Cannon memo explained, CO_2 qualifies as an air pollutant because it is a physical and chemical substance emitted by the burning of fossil fuels.[205] CO_2 is clearly emitted "into the ambient air," since "ambient air" is defined as "that portion of the atmosphere, external to buildings, to which the general public has access."[206] Global warming occurs throughout the atmosphere, including at ground level as conceived by the term "ambient air," and CO_2 is clearly emitted at ground level, as required by the regulatory definition.[207]

Once EPA determined that CO_2 was an air pollutant, EPA would have to consider whether to list CO_2 as a "criteria pollutant" pursuant to section 108 of the CAA. That section requires EPA to list as a "criteria pollutant" every air pollutant:

> (A) emissions of which, in [the EPA Administrator's] judgment, cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare;
> (B) the presence of which in the ambient air results from numerous or diverse mobile or stationary sources; and

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Letter from Gary S. Guzy, EPA General Counsel, to Representatives David M. McIntosh and Ken Calvert (Feb. 16, 2000) (on file with the Harvard Environmental Law Review) [hereinafter Guzy Letter 2].

[202] CAA § 109, 42 U.S.C. § 7409 (1977). They are called "criteria" pollutants because the CAA requires EPA to compile a comprehensive review of relevant scientific information, or criteria, concerning each pollutant in a lengthy "criteria" document. *See* CAA § 108(a)(2), 42 U.S.C. § 7408(a)(2) (1988).

[203] Cannon Memo, *supra* note 200, at 2.

[204] CAA § 302(g), 42 U.S.C. § 7602(g) (2005); *see* Cannon Memo, *supra* note 200, at 2.

[205] Cannon Memo, *supra* note 200, at 2. Cannon pointed out that even though CO_2 is naturally present in the air, that fact does not preclude it from being a CAA pollutant; many regulated air pollutants are both emitted by humans and naturally occurring. *Id.*

[206] 40 C.F.R. § 50.1(e) (2005); *see also* Guzy Letter 1, *supra* note 201, at 4.

[207] *See* 40 C.F.R. § 50.1(e) (2005); *see also* Guzy Letter 2, *supra* note 201, at 6–7.

> (C) for which air quality criteria had not been issued before December 31, 1970, but for which [the EPA Administrator] plans to issue air quality criteria under this section.[208]

Despite the rather opaque subsection (C), courts have ruled that section 108's listing requirement is "mandatory if the criteria of subsections A and B are met."[209] No one could seriously dispute that the presence of CO_2 in the ambient air "results from numerous or diverse mobile or stationary sources," including the burning of fossil fuels in power plants, factories, and motor vehicles. Thus the only question would be whether CO_2 warrants what is known as an "endangerment finding," i.e., the finding that CO_2 emissions "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare."

Just as the CAA broadly defines the term "air pollutant," the CAA also offers an expansive definition of "effects on the public welfare." Under the statute, "effects on the public welfare" include "effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, *weather*, visibility, and *climate*, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being."[210] Even given the remaining scientific uncertainty that plagues the global warming debate, it would seem difficult to dispute that CO_2 affects public welfare as conceived by the CAA. As was pointed out by the litigants in *Massachusetts v. EPA*, the Bush administration's own *Climate Action Report* concludes quite forcefully that CO_2 emissions are causing harmful global warming with likely effects on many elements of the public welfare as defined in the CAA.[211] Likewise, a 2001 report by

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[208] CAA § 108(a)(1), 42 U.S.C. § 7408(a)(1) (2005).

[209] NRDC v. Train, 545 F.2d 320, 324 (2d Cir. 1976). In that case, NRDC sued EPA for failing to list lead as a criteria pollutant despite EPA having acknowledged that airborne lead endangered health and welfare. *Id*. EPA reasoned that other means of regulating lead would be preferable and that its decision was a permissible exercise of discretion. The Second Circuit emphatically rejected EPA's position. The court held that once EPA finds that public welfare is endangered by a pollutant emitted from numerous mobile or stationary sources, the CAA requires listing the substance as a criteria pollutant and issuing air quality standards. *Id.* at 324, 328.

[210] CAA § 302(h), 42 U.S.C. § 7602(h) (2005) (emphasis added).

[211] U.S. STATE DEPT., U.S. CLIMATE ACTION REPORT: THE UNITED STATES OF AMERICA'S THIRD NATIONAL COMMUNICATION UNDER THE UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE 89 (2002), *available at* http://yosemite.epa.gov/oar/globalwarming.nsf/content/ResourceCenterPublicationsUSClimateActionReport.html [hereinafter CLIMATE ACTION REPORT] (projecting that global warming will cause sea level rise endangering coastal wetlands, exacerbate water shortages, trigger unpredictable and dangerous weather, damage ecosystems, and increase disease). *See also id.* at 30 (CO_2 represents 82.4% of U.S. greenhouse gas emissions); *id.* at 1 (human emissions of greenhouse gases are causing global warming). *See also* Notice of Intent to Sue Under Clean Air Act § 7604, from Thomas F. Reilly, Massachusetts Attorney General, et al., to Christine Todd Whitman, EPA Administrator (Jan. 30, 2003), at 1, *available at* http://www.ago.state.ma.us/environment/climatechangenoi.pdf; Final Brief for Petitioners at 8–11, Massachusetts v. EPA, 415 F.3d 50 (D.C. Cir. 2005) (Nos. 03-1361-03-1368), *available at* 2005 WL 257460 [hereinafter Petitioners' Brief]. EPA's website catalogues a litany of expected harmful impacts of global

the National Research Council, the advisory arm of the National Academy of Sciences, advised the federal government of extensive public welfare impacts of CO_2-induced global warming.[212]

Title II of the CAA provides an even clearer mandate for EPA to regulate CO_2 emissions from motor vehicles. Unlike Title I, Title II does not require the designation of a "criteria pollutant" in order to trigger regulation. Instead, CAA section 202(a)(1) states only that

> [t]he Administrator [of EPA] shall by regulation prescribe . . . standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.[213]

Thus, Title II would seem to require EPA to devise standards for CO_2 emissions from cars so long as CO_2 is an "air pollutant" for which EPA issues an endangerment finding.

Despite reaching the conclusions summarized above, the Clinton EPA chose not to declare definitively that specific CAA provisions authorize or require EPA regulation of CO_2. The Cannon Memo emphasized that its "general statement of authority is distinct from an EPA determination that a particular air pollutant meets the specific criteria for EPA action under a particular provision of the [CAA]."[214] Guzy was even more careful to avoid the final step to initiating regulation, saying to Republican members of Congress that "I would like to reassure you again that EPA has no plans to use existing authority to regulate CO_2 emissions."[215] Its legal opinions asserting EPA authority never led the Clinton Administration to regulate CO_2, but rather suggested only that the CAA grants EPA the discretion to do

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warming, including impacts on health, water resources, forests, agriculture, fisheries, and National Parks. *See* Global Warming–Impacts, http://yosemite.epa.gov/oar/globalwarming.nsf/content/Impacts.html (last visted Dec. 4, 2005) (on file with the Harvard Environmental Law Review).

[212] National Research Council, Climate Change Science: An Analysis of Some Key Questions (2001), *available at* http://books.nap.edu/html/climatechange/ (last visited Dec. 4, 2005) (on file with the Harvard Environmental Law Review) [hereinafter NRC Report]. *See also* Massachusetts v. EPA, 415 F.3d 50, 62–64 and 78–80 (D.C. Cir. 2005) (Tatel, J., dissenting) (extensively reviewing the NRC Report and concluding that "I have grave difficulty seeing how EPA . . . could possibly fail to conclude that global warming 'may reasonably be anticipated to endanger public health or welfare'") (internal citation and quotations omitted).

[213] CAA § 201(a)(1), 42 U.S.C. § 7521(a)(1) (2005).

[214] Cannon Memo, *supra* note 200, at 3.

[215] Guzy Letter 1, *supra* note 201, at 8; *see also* Guzy Testimony, *supra* note 201, at 11 ("EPA has not made any of the Act's threshold findings that would lead to regulation of CO_2 emissions from electric utilities or, indeed, from any source."); Guzy Letter 2, *supra* note 201, at 9 ("EPA has no current plans to propose regulations for CO_2.").

so. The EPA's policy regarding CO_2 was thus purely declarative until the Bush administration revisited the issue.

2. The Bush EPA's Rejection of CO_2 Regulation

As the above discussion makes clear, the Clinton CO_2 opinions left the most important question unanswered: does the CAA *require* EPA to regulate CO_2? Beginning in the late 1990s, a number of parties argued that the CAA required precisely that in attempts to force EPA to act. In 1999, a collection of public interest groups led by the International Center for Technology Assessment ("ICTA") petitioned EPA to make rules regulating greenhouse gas ("GHG") emissions from new motor vehicles under section 202 of the CAA.[216] In 2002, having received no response from EPA, ICTA sued under the "right to petition for rule-making" provision of the Administrative Procedure Act.[217] In early 2003, a partnership of state attorneys general sued EPA for not listing CO_2 as a CAA air pollutant, as well as for failing to update CAA emissions standards to enforce limits on CO_2.[218] These cases were consolidated to form *Massachusetts v. EPA*,[219] the D.C. Circuit case decided in EPA's favor in July 2005.

Around the time these lawsuits were filed, Robert Fabricant, the first EPA general counsel under President George W. Bush, reexamined the CAA's CO_2 authority and reversed the opinions of the Clinton EPA. On August 28, 2003, EPA issued a new opinion, the "Fabricant memo," formally withdrawing the Cannon memo and spelling out the Bush EPA's opposing view.[220] The next week, EPA formally denied ICTA's petition for rulemaking.[221] After summarizing the Cannon memo and the position of his predecessors,[222] Fabricant relied extensively on a 2000 Supreme Court case, *Food and Drug Administration v. Brown & Williamson Tobacco Corporation*,[223] to conclude that the CAA does not reach CO_2. EPA's new position was not merely that it had the discretion to choose not to regulate CO_2,

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[216] International Center for Technology Assessment, Petition for Rulemaking and Collateral Relief Seeking the Regulation of Greenhouse Gas Emissions from New Motor Vehicles Under § 202 of the Clean Air Act (Oct. 20, 1999), http://www.icta.org/doc/ghgpet2.pdf (on file with the Harvard Environmental Law Review).

[217] 5 U.S.C. § 553(e) (2005). *See* Andrew C. Revkin, *E.P.A. is Sued Over Emissions Classification*, N.Y. TIMES, Dec. 7, 2002, at A17.

[218] Jennifer Lee, *7 States to Sue E.P.A. Over Standards On Air Pollution*, N.Y. TIMES, Feb. 21, 2003, at A25. In response, interest groups such as the National Mining Association have written legal opinions criticizing the idea that the CAA might be invoked to regulate carbon dioxide. NATIONAL MINING ASSOCIATION, CO_2: A POLLUTANT? (1998), *available at* http://www.nma.org/about_us/publications/pub_co2_pollutant.asp [hereinafter NMA Opinion].

[219] 415 F.3d 50 (D.C. Cir. 2005).

[220] Fabricant Memo, *supra* note 5.

[221] Notice of Denial of Petition for CO_2 Rulemaking, 68 Fed. Reg. 52,922 (Sept. 8, 2003).

[222] Fabricant Memo, *supra* note 5, at 1–3.

[223] 529 U.S. 120 (2000).

but also—and principally—that the CAA grants EPA no authority over CO_2 at all.[224]

While defending its decision not to regulate CO_2 before the D.C. Circuit, the EPA made a second argument that did not appear in the Fabricant memo. EPA contended that even assuming it had CAA authority to regulate CO_2, EPA had nonetheless acted within its discretion in denying CO_2 rulemaking.[225] Although EPA called this argument its "fallback" argument, it is the one that persuaded the majority in *Massachusetts v. EPA*.[226]

a. EPA's Claim that It Lacks Authority To Regulate CO_2: Analogizing to Brown & Williamson

EPA's categorical argument that the CAA provides no authority to regulate CO_2 rests on an analogy to *FDA v. Brown & Williamson*, a case denying the Food and Drug Administration ("FDA") authority to regulate tobacco under the federal Food, Drug and Cosmetic Act ("FDCA").[227] The FDCA grants FDA the power to regulate "drugs," "devices" and combinations of the two;[228] all are defined broadly.[229] On the basis of these expansive definitions, FDA concluded that nicotine is a drug and that cigarettes and smokeless tobacco are devices or combinations of drugs and devices.[230] FDA then used these conclusions to justify regulations of tobacco advertising to minors.[231]

In *Brown & Williamson*, however, the Supreme Court ruled against FDA and in favor of tobacco manufacturers, holding that the FDCA conferred to the FDA no authority to regulate tobacco products.[232] The Court marshaled two categories of evidence to conclude that FDA could not regulate tobacco despite the broad language of the FDCA: (a) The poor suitability of the FDCA's regulatory structure to tobacco, and (b) Congress's intent not to ban tobacco use or delegate tobacco regulation to FDA. First, the Court found that if the FDCA really authorized FDA to regulate tobacco products, the FDCA would also force FDA to ban tobacco products outright, since the FDA had itself found that any amount of tobacco use is harmful.[233] The Court argued that banning tobacco products outright was

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[224] Fabricant Memo, *supra* note 5, at 4–10.

[225] Massachusetts v. EPA, 415 F.3d 50, 73 (D.C. Cir. 2005) (Tatel, J., dissenting).

[226] *Id.*; *see* discussion *infra* Part III.A.3.

[227] 529 U.S. 120, 125 (2000).

[228] 21 U.S.C. §§ 321(g)-(h) (2005). *See also Brown & Williamson*, 529 U.S. at 126.

[229] "Drugs" include "articles (other than food) intended to affect the structure or any function of the body . . . ." 21 U.S.C. § 321(g)(1)(C) (2005); 529 U.S. at 126. A "device" is "an instrument, apparatus, implement, machine, contrivance . . . or other similar or related article . . . intended to affect the structure or any function of the body." § 321(h); *see also Brown & Williamson*, 529 U.S. at 126.

[230] 529 U.S. at 126.

[231] *Id.* at 127.

[232] *Id.* at 126.

[233] *Id.* at 137. Two particular the FDCA regulatory requirements led the Court to this con-

impossible: Congress foreclosed that option in tobacco-specific legislation, thus rendering the FDCA completely incapable of addressing tobacco.[234] Second, the Court observed that Congress had rejected repeatedly any delegation of tobacco regulation to FDA, and that until 1995 FDA itself had disavowed explicitly any claim that it had authority to regulate tobacco.[235] The Court concluded that "these actions by Congress over the past thirty-five years preclude an interpretation of the FDCA that grants FDA jurisdiction to regulate tobacco products."[236]

In both the Fabricant memo and its argument to the court in *Massachusetts v. EPA*, EPA relied on the Court's reasoning in *Brown & Williamson* to assert that EPA had no authority to regulate CO_2.[237] Much like the FDCA's definitions of "drugs" and "devices," the CAA's definition of "air pollutant" is broad.[238] Nonetheless, EPA asserted that just as FDA overreached in *Brown & Williamson*, EPA would be overstepping its delegated authority under the CAA were it to regulate CO_2. Analogizing to *Brown & Williamson*, EPA argued both that the CAA's regulatory regime is ill-suited to address CO_2 emissions and that Congress never intended to allow EPA to regulate CO_2.[239]

EPA began by arguing that just as the FDCA's regulatory regime cannot be applied to tobacco, the CAA's regulatory regime is structurally incapable of addressing CO_2. To whatever extent CO_2 is harmful, the harm results from global increases in atmospheric CO_2 concentrations and resultant global climate change.[240] Fabricant argued that because of the global nature of CO_2,

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clusion.

First, the FDCA instructs the FDA to label devices "misbranded" if they are dangerous when used as suggested or if they lack labels explaining how they can be used safely. 21 U.S.C. § 331(a), 352(j) (2005); *Brown & Williamson*, 529 U.S. at 135. Of course, tobacco products are harmful even when used as expected by the manufacturers, a problem no label could cure. *Brown & Williamson*, 529 U.S. at 135. Thus the Court found that if it were applied properly to tobacco, FDCA's regulatory structure would force FDA to find tobacco misbranded and thereby ban its sale altogether. *Id. at* 136–37. Second, FDCA directs FDA to classify every device in one of three categories depending on the device's relative health risks. 21 U.S.C. § 360c(b)(1) (2005); *see also Brown & Williamson*, 529 U.S. at 136. Given tobacco's health consequences, FDA would eventually have to categorize tobacco as a Class III device. 529 U.S. at 136. This would again force FDA to ban tobacco altogether since FDA cannot allow the marketing of a Class III device unless it is shown to be "safe." *Id.*; 21 U.S.C. § 360e(d)(2)(A) (2000); *Brown & Williamson*, 529 U.S. at 136.

[234] *Brown & Williamson*, 529 U.S. at 142–43. Based on the conflict between applying the FDCA and applying tobacco-specific law, the Court held that "[t]he inescapable conclusion is that there is no room for tobacco products within the FDCA's regulatory scheme. If they cannot be used safely for any therapeutic purpose, and yet they cannot be banned, they simply do not fit." *Id.* at 143.

[235] *Id*. at 144, 146.

[236] *Id*. at 155.

[237] *See* Brief of Respondent-Appellee at 18–54, Massachusetts v. EPA, 415 F.3d 50 (D.C Cir. 2005) (Nos. 03-1361 to 03-1368) [hereinafter EPA Brief].

[238] *See supra* notes 204–207 and accompanying text.

[239] *See* EPA Brief, *supra* note 237, at 18–54.

[240] Fabricant Memo, *supra* note 5, at 7; EPA Brief, *supra* note 237, at 33–34.

> [T]he potential for either adverse or beneficial effects in the U.S. from [CO_2] concentrations depends on complicated interactions of many variables on the land, in the oceans, and in the atmosphere, occurring around the world and over long periods of time. Characterization and assessment of such effects to atmospheric concentration of CO_2 in the U.S. would present scientific issues of unprecedented complexity.[241]

In addition to the unique complexity of assessing the likely consequences of increased CO_2 concentrations, EPA argued that the CAA's regulatory structure cannot apply to CO_2 because the CAA is designed to protect local air quality, not to address global air pollution.[242] Atmospheric concentrations of CO_2 do not vary locally, and thus local reductions in CO_2 emissions cannot meaningfully influence local concentrations of CO_2.[243]

EPA contended that the CAA's regulatory framework is thus inappropriate for the management of CO_2 emissions.[244] Listing CO_2 as a criteria pollutant would require EPA to set a CO_2 NAAQS—essentially, EPA would have to declare a nationwide allowable concentration of CO_2.[245] Since CO_2 concentrations are uniform worldwide, a CO_2 NAAQS would instantly place the entire world either in compliance or out of compliance.[246] Moreover, the CAA delegates to the states control of local emissions to meet the national standard.[247] Each state must devise a SIP outlining the regulatory measures the state will enforce to ensure compliance with the NAAQS.[248]

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[241] Fabricant Memo, *supra* note 5, at 7; *see also* Notice of Denial of Petition for CO_2 Rulemaking, 68 Fed. Reg. 52,922, 52,930 (Sept. 8, 2003) ("The science of climate change is extraordinarily complex and still evolving. Although there have been substantial advances in climate change science, there continue to be important uncertainties in our understanding of the factors that may affect future climate change and how it should be addressed.").

[242] Fabricant Memo, *supra* note 5, at 7–8.

[243] *See* EPA Brief, *supra* note 237, at 33–34.

[244] Fabricant Memo, *supra* note 5, at 4; CAA § 109, 42 U.S.C. § 7409; EPA Brief, *supra* note 237, at 33–35.

[245] *See* CAA § 109, 42 U.S.C. § 7409 (2005).

[246] Depending only on whether EPA chose a CO_2 concentration above or below the current atmospheric concentration. Fabricant Memo, *supra* note 5, at 7; EPA Brief, *supra* note 237, at 33–34; *see also* Guzy Letter 2, *supra* note 201, at 8 (quoting letter from Rep. David McIntosh):

> A NAAQS for CO_2 would have to be set either *below, above,* or *at* current atmospheric concentrations. There is no other possibility . . . . As we see it, setting a NAAQS for CO_2 above the current concentrations would put the entire country in attainment, even if U.S. CO_2 production suddenly doubled. Conversely, setting a NAAQS for CO_2 below current concentrations would put the entire country out of attainment, even if all power plants and factories were to shut down . . . . From these considerations we conclude that the NAAQS program is fundamentally unsuited to address the issue of global warming.

[247] *See* CAA § 110, 42 U.S.C. § 7410 (2005).

[248] *Id.*

Yet states would be effectively powerless to reduce their emissions enough to affect global CO_2 concentrations.[249] According to Fabricant, this would create a compliance problem "that fundamentally differs from the kind of environmental problem that the NAAQS system was intended to address and is capable of solving."[250]

With respect to regulating motor vehicle emissions of CO_2, EPA emphasized the technical infeasibility of any hypothetical regulatory scheme, asserting that "[n]o technology currently exists or is under development that can capture and destroy or reduce emissions of CO_2."[251] EPA explained that "the only practical way of making a meaningful reduction in motor vehicle emissions of CO_2 is by increasing fuel economy."[252] Since fuel economy standards are already set by the Department of Transportation under its system of Corporate Average Fuel Economy ("CAFE") standards, EPA argued that it could not invoke CAA authority to regulate CO_2 "without upsetting this statutory scheme."[253]

In addition to arguing that the CAA is structurally incapable of regulating CO_2 in a reasonable fashion, EPA argued that the legislative history of the CAA and Congress's subsequent encounters with global warming demonstrate that Congress never intended for the EPA to regulate CO_2. This finding paralleled *Brown & Williamson*'s conclusion that Congress did not intend to place tobacco under FDA's authority, despite the FDCA's broad terms.

EPA's analysis focused on the language and history of the CAA itself, on failed efforts to enact global warming regulation, and on several other indications of Congress's global warming-related intent. First, EPA highlighted the fact that there are only two references to global warming or CO_2 in the entire CAA. Those provisions do not impose regulatory duties, and in fact explicitly state that they are non-regulatory and should not be viewed as the basis for any additional requirements.[254] Second, EPA reviewed evi-

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[249] Fabricant Memo, *supra* note 5, at 7–8.

[250] *Id.* at 8.

[251] Notice of Denial of Petition for CO_2 Rulemaking, 68 Fed. Reg. 52,922, 52,929 (Sept. 8, 2003).

[252] EPA Brief, *supra* note 237, at 70. EPA is correct that "[f]uel economy is directly related to emissions of greenhouse gases such as carbon dioxide." EPA, *Light-Duty Automotive Technology and Fuel Economy Trends, 1975–2005*, EPA420-R-03-006, at 1–2 (July 2005), *available at* www.epa.gov/otaq/fetrends.htm.

[253] Notice of Denial of Petition for CO_2 Rulemaking, 68 Fed. Reg. 52,922, 52,929 (Sept. 8, 2003). EPA went on to explain that "any EPA effort to set CO_2 tailpipe standards under the CAA would either abrogate EPCA's regime (if the standards were effectively more stringent than the applicable CAFE standard) or be meaningless (if they were effectively less stringent)." *Id.* The Energy Policy and Conservation Act ("EPCA") is the law implementing the CAFE standards, now codified at 49 U.S.C. §§ 32901–32919 (2005).

[254] EPA Brief, *supra* note 237, at 27–28; Fabricant Memo, *supra* note 5, at 5. The two mentions are at CAA § 103(g), 42 U.S.C. § 7403(g), and CAA § 602(e), 42 U.S.C. § 7671a(e). In fact, § 103 reiterates that it does not impose or imply regulatory duties three times. *See* CAA § 103(g), 42 U.S.C. § 7403(g) (2005). A number of commentators note the pains taken in these two sections to avoid imposing a CO_2 regulatory mandate as strong evi-

dence from the legislative history of the 1990 CAA Amendments suggesting that Congress had considered and rejected CO_2 regulation.[255] Third, EPA cited instances unrelated to the CAA in which Congress addressed global warming without mandating regulation. These included statutes funding research and voluntary measures to address climate change as well as instances when Congress had rejected proposals to regulate CO_2.[256]

Finally, EPA argued that given the economic implications of controlling CO_2 emissions, Congress could not have delegated the decision to regulate.[257] Quoting *Brown & Williamson*, the Fabricant memo suggested that Congress would not "delegate a decision of such economic and political significance . . . in so cryptic a fashion."[258] According to Fabricant, regulating CO_2 would require major changes in every sector of the U.S. economy, and could prove an economic catastrophe.[259] EPA particularly stressed these potentially severe economic consequences in its rejection of ICTA's rulemaking petition. The enormous economic significance of regulating CO_2 suggested to EPA that it should be skeptical that Congress ever intended to delegate such power to the agency.[260]

Although it did not repeat the argument before the D.C. Circuit, EPA had earlier questioned whether CO_2 even meets the CAA's definition of "air pollutant."[261] Although claiming not to address this question, Fabricant challenged the Cannon Memo's broad interpretation of "air pollutant," which had focused on the CAA definition's inclusion of "any physical, chemical, biological, [or] radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air."[262] The Fabricant Memo claimed that in finding that CO_2 is an air pollutant, the Clinton EPA had "failed to address, and effectively read out, the 'air pollution agent' language at the core of the [air pollutant] definition."[263] In rejecting ICTA's petition for CO_2

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dence of congressional opposition to regulation of CO_2. *See, e.g.*, NMA Opinion, *supra* note 218; REITZE, *supra* note 15, at 415.

[255] EPA Brief, *supra* note 237, at 29–32; Fabricant Memo, *supra* note 5, at 6; Denial of Petition for CO_2 Rulemaking, 68 Fed. Reg. 52,922, 52,926 (Sept. 8, 2003); *see also* REITZE, *supra* note 15, at 415–16.

[256] Fabricant Memo, *supra* note 5, at 8; EPA Brief, *supra* note 237, at 49–53. For example, EPA mentioned the National Climate Program Act of 1978, 15 U.S.C. § 2901-08 (mandating climate change research, data collection, and information dissemination); the Global Climate Protection Act of 1987, 22 U.S.C. § 2651 (directing EPA to propose a national climate change policy); the Global Change Research Act of 1990, 15 U.S.C. § 2931 (starting a ten-year climate change research program); and the Energy Policy Act of 1992, Pub. L. No. 102-486, 106 Stat. 2776 (providing for voluntary reporting of GHG emissions reductions).

[257] Fabricant Memo, *supra* note 5, at 9–10.

[258] *Id.* at 9 (quoting FDA v. Brown & Williamson Tobacco Corp., 529 U.S. at 160).

[259] *Id.* at 10; *see also* Notice of Denial of Petition for CO_2 Rulemaking, 68 Fed. Reg. 52,922, 52,928 (Sept. 8, 2003).

[260] Denial of Petition for CO_2 Rulemaking, 68 Fed. Reg. 52,922, 52,928 (Sept. 8, 2003).

[261] Fabricant Memo, *supra* note 5, at 10–11 n.9. *See* CAA § 302(g), 42 U.S.C. § 7602(g) (2005) (defining "air pollutant").

[262] CAA § 302(g), 42 U.S.C. § 7602(g) (2005).

[263] Fabricant Memo, *supra* note 5, at 10 n.9.

rulemaking, EPA even more clearly stated that CO_2 fails to qualify as an "air pollutant":

> The root of the definition indicates that for a substance to be an "air pollutant," it must be an "agent" of "air pollution." Because EPA lacks CAA regulatory authority to address global climate change, the term "air pollution" as used in the regulatory provisions cannot be interpreted to encompass global climate change. Thus, CO_2 and other GHGs are not "agents" of air pollution and do not satisfy the CAA section 302(g) definition of "air pollutant" for purposes of those provisions.[264]

b. EPA's "Fallback" Argument that It Has Discretion Not To Regulate

Although EPA's central argument against CO_2 regulation was based on *Brown & Williamson*, the *Massachusetts v. EPA*[265] decision relied on EPA's "fallback" argument: regardless of EPA's authority over CO_2, the CAA grants EPA the discretion to refuse to regulate.[266] EPA argued that the text of the CAA makes clear that EPA's decision to issue an endangerment finding, the threshold determination that triggers regulation of a given pollutant, is discretionary.[267] Before EPA regulates any pollutant, the CAA first requires that EPA issue a finding that the emissions "cause or contribute to air pollution which may be reasonably anticipated to endanger public health or welfare."[268] The explicit text of section 202(a)(1) and other sections triggering regulation place the determination that a pollutant may endanger health or welfare in the judgment of the EPA Administrator.[269]

EPA pointed out that it has never made a formal endangerment finding with respect to CO_2.[270] EPA then asserted that in both the Fabricant memo and the Denial of the Petition for Rulemaking, it had articulated "sound

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[264] Notice of Denial of Petition for CO_2 Rulemaking, 68 Fed. Reg. 52,922, 52,928 (Sept. 8, 2003). This strange explanation for why CO_2 is not an air pollutant is hopelessly circular, as addressed in greater detail in discussion, *infra* Part III.B.4.

[265] 415 F.3d 50 (D.C. Cir. 2005).

[266] Massachusetts v. EPA, 415 F.3d 50, 73 (D.C. Cir. 2005) (Tatel, J., dissenting); EPA Brief, *supra* note 237, at 54.

[267] EPA Brief, *supra* note 237, at 54.

[268] *Id.* at 54–55 (internal quotations omitted); CAA § 202(a)(1), 42 U.S.C. § 7521(a)(1) (2005) ("The Administrator shall by regulation prescribe . . . standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare."). Sections 108 and 111, among others, include almost identical language. CAA § 108(a)(1)(A), 42 U.S.C. § 7408(a)(1)(A) (2005); CAA § 111(b)(1)(A), 42 U.S.C. § 7411(b)(1)(A) (2005).

[269] *See* note 268, *supra*.

[270] EPA Brief, *supra* note 237, at 58.

and appropriate policy grounds" for declining to make an endangerment finding.[271] EPA cited four such grounds: (1) that prior to regulatory intervention, further scientific research was warranted on the relationship between CO_2 emissions and global warming; (2) that the practical options for reducing CO_2 emissions from automobiles are limited; (3) that regulation of CO_2 pursuant to the CAA could have "counterproductive foreign policy implications"; and (4) that EPA and other agencies are pursuing alternative approaches to address global warming.[272]

3. Massachusetts v. EPA*: A Divided D.C. Circuit Approves of EPA's Fallback Argument*

The D.C. Circuit's majority opinion in *Massachusetts v. EPA* did not adopt EPA's preferred argument that the CAA grants no authority over CO_2. Indeed, Judge Randolph's majority opinion relegated *Brown & Williamson* to a single footnote, in which the court stated tersely that "[w]e express no view on the validity of EPA's [*Brown & Williamson*] analysis."[273] This dismissal of EPA's central argument gives the distinct impression that the majority, like the dissenting Judge Tatel, was not persuaded by what Judge Tatel called EPA's "counter-textual position."[274]

Even so, the D.C. Circuit dismissed the petitions for rulemaking on the basis of EPA's fallback argument granting EPA the discretion to refuse to regulate. Citing primarily the scientific uncertainty regarding the causes and impacts of global warming,[275] the majority found that EPA's decision to forego rulemaking on CO_2 falls within the discretion captured by the phrase "in his judgment":

> In requiring the EPA Administrator to make a threshold "judgment" about whether to regulate, § 202(a)(1) gives the Administrator considerable discretion. Congress does not require the Administrator to exercise his discretion solely on the basis of his assessment of scientific evidence. . . . [P]olicy judgments also may be taken into account. By this the court meant the sort of policy judgments Congress makes when it decides whether to enact legislation regulating a particular area.[276]

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[271] *Id.* at 61.

[272] *Id.* at 61–70. With respect to scientific uncertainty, see also Denial of Petition for CO_2 Rulemaking, 68 Fed. Reg. 52,922, 59,230 (Sept. 8, 2003) ("The science of climate change is extraordinarily complex and still evolving . . . . [T]here continue to be important uncertainties in our understanding of the factors that may affect future climate change and how it should be addressed.").

[273] Massachusetts v. EPA, 415 F.3d 50, 56 n.1 (D.C. Cir. 2005).

[274] *Id.* at 68 (Tatel, J., dissenting).

[275] *Id.* at 56–58.

[276] *Id.* at 57–58 (quotations and citations omitted).

After the above quoted passage, the majority spent little more than a paragraph to mention various policy considerations beyond scientific uncertainty which EPA cited as its basis for denying CO_2 rulemaking.[277]

In a two-part opinion, Judge Sentelle dissented in part and concurred in the judgment.[278] In the first part of his opinion, Judge Sentelle argued that the petitioners lacked standing to sue, and that EPA should have won on that basis. In the second part, the concurrence in the judgment, Judge Sentelle analogized the decision in *Massachusetts v. EPA* to a "fragmented opinion" in a recent Supreme Court case, where Justices Souter and Ginsburg joined a plurality opinion in order "to give practical effect to the conclusion of [a majority]" on "terms closest to those" the two justices preferred.[279] Judge Sentelle then explained that

> Although I disagree [with the majority's finding on standing], I will accept the decision of the majority as dictating the law of this case. Having so accepted the law of the case, I will then join Judge Randolph in the issuance of a judgment closest to that which I myself would issue.[280]

In a lengthy dissent Judge Tatel rejected both EPA's primary argument that the CAA confers no authority over CO_2 and its fallback argument that EPA has discretion to refuse to regulate.[281] Judge Tatel asserted that the CAA's "exceedingly broad language plainly covers [greenhouse gases] emitted from motor vehicles."[282] Reviewing both the legislative history and the structure of the CAA, Judge Tatel was unconvinced by EPA's analogy to *Brown & Williamson*, noting that "to disregard the Act's plain text . . . . EPA needs an extraordinarily convincing justification."[283] Judge Tatel then dissented from the majority's conclusion that EPA had acted within its discretion, and asserted that the CAA grants EPA discretion only to determine whether or not an air pollutant causes or contributes to harmful pollution.[284] After an extensive review of the scientific evidence on global warming, Judge Tatel concluded that "the projected consequences of global warming are serious,"[285] that "matters are well within the frontiers of scientific knowledge,"[286] and that "EPA's proffered reasons for refusing to

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[277] *Id.*

[278] Massachusetts v. EPA, 415 F.3d at 59–61 (Sentelle, J., concurring).

[279] *Id.* at 61 (quoting Hamdi v. Rumsfeld, 542 U.S. 507, 553 (2004)) (internal quotation marks omitted).

[280] *Id.*

[281] *Id.* at 61–82 (Tatel, J., dissenting).

[282] *Id.* at 67.

[283] Massachusetts v. EPA, 415 F.3d at 68 (quoting Appalachian Power Co. v. EPA, 249 F.3d 1032, 1041 (D.C. Cir. 2001)).

[284] *Id.* at 74.

[285] *Id.* at 78.

[286] *Id.* at 77.

make an endangerment finding have no connection to the statutory standard."[287]

B. The Flawed Reasoning of Massachusetts v. EPA*: Symbolism as a Basis for an EPA Duty To Regulate* CO_2

Viewed in light of *American Trucking* and the Supreme Court's tacit approval of CAA symbolism, Judge Randolph's majority opinion in *Massachusetts v. EPA* represents a serious misapprehension of the CAA. The D.C. Circuit not only allowed EPA to invoke a transparently weak claim of scientific uncertainty as a basis for total inaction, but also granted EPA inappropriately broad discretion to raise policy objections utterly independent of the harmfulness of a pollutant as rationales for declining to find that the pollutant endangers health and welfare. Moreover, the D.C. Circuit did not resolve the legality of EPA's *Brown & Williamson* argument, a position utterly at odds with the CAA's action-forcing front-end symbolism.

The majority in *Massachusetts v. EPA* chose not to address EPA's central contention that the CAA provides no regulatory authority over CO_2. While the opinion gives the impression that the D.C. Circuit was not persuaded by EPA's analogy to *Brown & Williamson*, the majority gave no guidance as to why the analogy was unconvincing, or to whether it may be invoked again in future CAA disputes. Relying on the *Brown & Williamson* analogy, however, would ignore *American Trucking*'s approach to the CAA's symbolic mandates. In both *American Trucking* and *Brown & Williamson*, the Court had to choose whether to inject practicality into an otherwise overstated mandate. Unlike in *Brown & Williamson*, the *American Trucking* Court enforced the CAA's overstated mandate as written despite its flaws. It is the CAA's intentional symbolism and the Court's approval of that symbolism that distinguishes the two cases and renders EPA's analogy inapt.

1. Symbolism and Scientific Uncertainty

Like the insistence that EPA should consider cost when setting air quality standards, the argument that EPA should delay action on account of scientific uncertainty is a common objection to CAA regulation. In 1976, the D.C. Circuit addressed such an uncertainty argument in the en banc decision *Ethyl Corporation v. EPA*.[288] *Ethyl* resolved industry attempts to vacate EPA's contentious decision to regulate lead emissions based on EPA's finding that lead pollution endangered public health and welfare.[289] The industry petitioners had argued primarily that EPA erred because the

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[287] *Id.*
[288] 541 F.2d 1, 13–20 (D.C. Cir. 1976), cert. denied, 96 S.Ct. 2662 (1976).
[289] *See id.* at 7.

science and data demonstrating the harmfulness of lead were still too uncertain to warrant action.

The D.C. Circuit strongly rejected the petitioner's plea of uncertainty. According to the court, even though "[t]he health effects of [man's alterations of the environment] are often unknown, sometimes unknowable . . . the statutes—and common sense—demand regulatory action to prevent harm, even if the regulator is less than certain that harm is otherwise inevitable."[290] When Congress amended the CAA in 1977, it explicitly approved of the holding in *Ethyl*.[291] According to the House Committee overseeing the 1977 CAA Amendments, Congress altered the language in section 202(a)(1) to demonstrate even more clearly its intent that EPA should not withhold an endangerment finding on account of uncertainty. The committee said that "[i]n order to emphasize the precautionary or preventive purpose of the act (and, therefore, the Administrator's duty to assess risks rather than wait for proof of actual harm), the committee not only retained the concept of endangerment to health; the committee also added the words 'may reasonably be anticipated.'"[292]

The series of appellate court decisions addressing the regulation of lead demonstrate a consistent rejection of uncertainty as a basis for refusing to regulate. In 1976, when the Second Circuit required EPA to list lead as a criteria pollutant, it concluded that "[i]t is irrelevant that the current state of scientific knowledge may make it difficult to set an ambient air quality standard."[293] In 1980, the industry challenged EPA's regulation of lead, this time pursuant to the 1977 CAA Amendments.[294] The D.C. Circuit concluded that "Congress' directive to the Administrator to allow an 'adequate margin of safety' alone plainly refutes any suggestion that the Administrator is only authorized to set primary air quality standards which are designed to protect against health effects that are known to be clearly harmful."[295]

As with section 109's requirement that EPA ignore cost, the requirement that EPA overlook uncertainty is also symbolic. It would be nonsensical for EPA to ignore scientific uncertainty altogether in selecting a regulatory approach to a given threat. The error in *Massachusetts v. EPA* is in allowing EPA to invoke uncertainty as a front-end rationale for total inaction, as opposed to as an important consideration during the back-end design of a specific regulatory approach.[296]

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[290] *Id.* at 24–25.
[291] H.R. REP. NO. 95-294, at 49 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1127.
[292] *Id.* at 51.
[293] NRDC v. Train, 545 F.2d 320, 324 n.5 (2d Cir. 1976).
[294] *See* Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d 1130 (D.C. Cir. 1980).
[295] *Id.* at 1154–55.
[296] *Cf.* Am. Trucking Ass'ns, Inc. v. EPA, 283 F.3d 355 (D.C. Cir. 2002) (approving of uncertainty as EPA's basis for ozone and PM standards).

According to EPA, the "significant and relevant areas of scientific uncertainty . . . counsel against taking regulatory action to control greenhouse gas emissions at this time."[297] EPA's position is contrary to the CAA's symbolic intent. As the Second Circuit explained in rejecting EPA's early resistance to regulating lead, the CAA's text and history demonstrate that "Congress sought to eliminate, not perpetuate, opportunity for administrative foot-dragging."[298]

Scientific uncertainty is an especially poor justification for EPA's decision given the overwhelming evidence of the harmfulness of global warming. Although the science of global warming is beyond the scope of this article, one need only read the scientific reports cited in *Massachusetts v. EPA* to recognize the gross distortion of their content in both EPA's and the majority's invocations of uncertainty. The majority referred principally to a comprehensive report on global warming compiled by the National Academy of Sciences at the request of the U.S. government.[299] While the court claimed the report shows "considerable uncertainty" in scientists' understanding of the greenhouse effect,[300] the majority transparently cherry-picked a few of the lengthy report's statements about remaining scientific uncertainties while disregarding the reports' emphatic and explicit conclusion. As Judge Tatel pointed out in his dissent, the very first sentence on the first page of the report declares with absolutely no qualification that carbon dioxide emissions are causing global warming.[301] Likewise, the majority overlooked the U.S. State Department's Climate Action Report, a comprehensive government review of global warming science documenting extensive evidence supporting an endangerment finding.[302] In reality, EPA presented no scientific evidence that might warrant a delay in an endangerment finding on purely scientific grounds, and the court subjected EPA's uncertainty determination to no judicial review of any kind. As Judge Tatel concluded after reviewing the science in his dissent, "I have grave difficulty seeing how EPA . . . could possibly fail to conclude that global warming 'may reasonably be anticipated to endanger public health or welfare.'"[303]

Massachusetts v. EPA erred by allowing uncertainty to absolve EPA of any duty whatsoever. Every air pollution problem involves incredible scientific complexity. By allowing EPA to invoke a virtually unconstrained set of uncertainty arguments in defense of inaction, *Massachusetts v. EPA* di-

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[297] EPA Brief, *supra* note 237, at 63.

[298] NRDC v. Train, 545 F.2d at 328.

[299] Massachusetts v. EPA, 415 F.3d 50, 56–58 (D.C. Cir. 2005).

[300] *Id.* at 57–58.

[301] *See id.* at 62 (Tatel, J., dissenting). The first sentence of the first page states that "[g]reenhouse gases are accumulating in Earth's atmosphere as a result of human activities, causing surface air temperatures and subsurface ocean temperatures to rise." *Id.*

[302] *See* CLIMATE ACTION REPORT, *supra* note 211 (reciting a long list of likely harmful impacts from global warming).

[303] 415 F.3d at 80 (Tatel, J., dissenting).

luted one of the CAA's key action-forcing mandates in precisely the manner CAA symbolism was designed to preempt.

2. Symbolism as an Answer to EPA's "Policy Judgments"

Ethyl Corporation v. EPA affirmed the CAA's symbolic intent by rejecting a particular brand of excuse-making—appeals to scientific uncertainty. However, Judge Randolph, in his majority opinion in *Massachusetts v. EPA,* asserts that "*Ethyl* supports EPA, not petitioners."[304] The majority reached this conclusion by citing *Ethyl*'s holding that EPA may make "policy judgments" in the course of deciding whether to issue an endangerment finding:

> That petitioners, and their scientists, find a basis to disagree [with EPA's endangerment finding on lead] is hardly surprising, since the results are still uncertain, and will be for some time. But if the statute accords the regulator flexibility to assess risks and make essentially legislative policy judgments, as we believe it does, preventive regulation based on conflicting and inconclusive evidence may be sustained.[305]

In *Massachusetts v. EPA*, the majority reasoned that the "policy judgments" endorsed in *Ethyl* include "the sort of policy judgments Congress makes when it decides whether to enact legislation regulating a particular area."[306] The court then explained that "[i]n addition to the scientific uncertainty about the causal effects of greenhouse gases on the future climate of the earth, the Administrator relied upon many 'policy' considerations that, in his judgment, warranted regulatory forbearance at this time."[307] The court briefly mentioned with approval a number of these policy considerations, including EPA's view that such regulation would be inefficient and piecemeal, that unilateral action would conflict with foreign policy efforts to persuade developing nations to reduce emissions, and that ongoing scientific research and voluntary efforts were preferable to regulatory intervention.[308]

This reliance on *Ethyl* turns symbolism on its head. Although the *Ethyl* court appeared to grant broad discretion to EPA, that discretion was approved in the context of affirming EPA action, not in the context of affirming EPA foot-dragging. When the *Ethyl* court approved of "policy judgments," it was referring to EPA's decision to err on the side of action, not a decision to make excuses. *Ethyl* instructs that EPA has authority to issue an endangerment finding even where the harm of a given pollutant may be "un-

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[304] *Id.* at 57.
[305] Ethyl Corp. v. EPA, 541 F.2d 1, 26 (D.C. Cir. 1976).
[306] Massachusetts v. EPA, 415 F.3d at 58.
[307] *Id.*
[308] *Id.*

knowable."[309] This holding is illogical unless it is read not as a grant of limitless discretion to EPA, but as an attempt to express and enforce Congress's symbolic intent to "err on the side of action."[310] If there were any doubt after *Ethyl* that policy judgments are permissible only in the service of overcoming uncertainty and as a mechanism for biasing decisions in favor of regulating, that doubt was removed by the 1977 amendments to the CAA, which strengthened and gave congressional approval to the holding of *Ethyl*.[311]

Massachusetts v. EPA is especially troubling for its finding that the phrase "in his judgment" constitutes a grant of nearly unlimited discretion to EPA to consider anything at all as a rationale for withholding an endangerment finding. As Judge Tatel observed in his dissent, the "policy judgments" permitted by *Ethyl* were quite obviously limited to EPA's assessment of the risk and harmfulness of the pollution at issue, and did not encompass far-flung considerations of the advisability of regulation itself.[312] Not only is the text of the CAA straightforward on this point, the legislative history of the CAA also makes clear that Congress intended to limit the discretion afforded the Administrator to the questions of whether particular emissions "cause or contribute" to pollution that may "reasonably be anticipated" to harm public health or welfare.[313] The *Ethyl* decision itself emphasized that Congress did not leave the Administrator "free to set policy on his own terms," but rather set "policy guidelines" to constrain EPA's policy considerations through "the statutory term 'will endanger' and the relationship of that term to other sections of the Clean Air Act."[314] In effect, EPA's argument and the majority's holding "transformed the limited discretion given to the Administrator under section 202—the discretion to determine whether or not an air pollutant causes or contributes to pollution which may reasonably be anticipated to endanger public health or welfare—into the discretion to withhold regulation because it thinks such regulation bad policy."[315]

The implication of *Massachusetts v. EPA* is thus that the words "in his judgment" afford EPA the discretion to refuse to act on the basis of efficiency, cost,[316] or any other practical concern entirely beyond the narrow

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[309] Ethyl Corp. v. EPA, 541 F.2d at 25.

[310] *See* Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d 1130, 1153–54 (D.C. Cir. 1980).

[311] *See supra* notes 291–295 and accompanying text.

[312] Massachusetts v. EPA, 415 F.3d at 76 (Tatel, J., dissenting) ("*Ethyl* makes quite clear that the Administrator's policy-based discretion is limited to the terms of the statute.").

[313] H.R. REP. NO. 294, 95-294, at 49, 51 (1977), *reprinted in* 1977 U.S.C.C.A.N. 1077, 1127, 1129.

[314] Massachusetts v. EPA, 415 F.3d at 76 (Tatel, J., dissenting) (quoting Ethyl Corp. v. EPA, 541 F.2d at 29).

[315] *Id* at 74.

[316] Although the costs of regulating CO_2 were not discussed in *Massachusetts v. EPA*, EPA had sprinkled its CO_2 opinions with assertions that regulating CO_2 would precipitate economic disaster. According to the Fabricant Memo, such regulation would "threaten [the nation's] overall economic health." Fabricant Memo, *supra* note 5, at 10. Likewise, EPA's

endangerment finding.[317] For example, in its brief before the D.C. Circuit, EPA declared that regulating CO_2 "could give rise to counterproductive foreign policy implications."[318] EPA hypothesized that unilateral regulation of motor vehicle emissions by the United States might "reduce the incentives for other nations—particularly in the developing world—to reduce their emissions of greenhouse gases."[319] The *Massachusetts v. EPA* majority cited this argument as one of the policy judgments justifying EPA's decision to reject rulemaking.[320] Of course, the idea that an agency has discretion to decline to implement a federal statute on the basis of a self-serving, non-specific declaration that implementation would impede foreign policy finds no support in the law, and EPA provided none.

3. American Trucking *as the Basis for Rejecting the* Brown & Williamson *Analogy*

Brown & Williamson and *American Trucking* address analogous problems: how to interpret a statute that says something unambiguous but problematic. Under the FDCA, a "drug" is an article intended to affect any structure or function of the body.[321] Surely tobacco qualifies as a drug under this definition. Yet reading the FDCA literally and applying its regulatory provisions honestly to tobacco would require something Congress could not have intended: the banning of all tobacco products. The non-threshold pollutant problem under the CAA is similar. CAA section 109 requires EPA to set NAAQS without regard to cost. Yet reading section 109 literally and applying it honestly to non-threshold pollutants would also require something absurd: setting air quality standards at zero, effectively requiring the end of industrialized society.

Aside from requiring this absurd result and effectively forcing Congress to rewrite the statute, there are only two ways the Court could resolve this kind of statutory conundrum. The first option would entail injecting pragmatism at the "front end" to remove or water down the agency's initial authority or duty—fudging the broad, triggering provisions of the statute. In effect, the Court could use the impossibility of implementing the rest

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rejection of the petition for rulemaking declared that CO_2 regulation would "require a wholesale transformation of our methods for producing power and transporting goods and people," and that "[i]t is hard to overstate the economic significance of making these kinds of fundamental and widespread changes in basic methods of producing and using energy." Denial of Petition for CO_2 Rulemaking, 68 Fed. Reg. 52,922, 52,928 (Sept. 8, 2003). The Fabricant Memo and the Federal Register announcement together assert four times that CO_2 regulation would require a "wholesale" overhaul of the nation's economy.

[317] *See* NRDC v. Train, 545 F.2d 320, 324–25 (2nd Cir. 1976) (rejecting EPA's attempt to avoid listing lead as a criteria pollutant on the basis that other CAA provisions offered preferable regulatory options for lead).

[318] EPA Brief, *supra* note 237, at 68.

[319] *Id.* at 69.

[320] Massachusetts v. EPA, 415 F.3d 50, 58 (D.C. Cir. 2005).

[321] *See supra* note 229 and accompanying text.

of the statute to justify an interpretion of the broad triggering provision contrary to its plain meaning. This was the approach taken in *Brown & Williamson*. The irrationality of honestly applying the rest of FDCA's regulatory structure to tobacco products supported the Court's understanding of legislative intent and therefore of the statute itself. Because the FDCA just does not work for regulating tobacco, the Court concluded that Congress could not have intended to subject tobacco to the FDCA at all.[322]

The second possible option would be to fudge not the agency's authority or duty, but the manner in which the statute requires the agency to carry it out. This solution amounts to injecting pragmatism at the "back end"—affirming the agency's authority but interpreting other provisions of the statute flexibly so as to avoid the absurd result. This was the solution adopted in *American Trucking*. *American Trucking* emphatically enforced section 109's cost-ignoring mandate as written, despite its flaws. Yet the Court entrusted EPA with adopting reasonable air quality standards, implicitly blessing the obfuscation EPA would employ to avoid the absurd result. As the Court expected, EPA did not follow section 109 literally and did not set ozone and PM standards at zero. EPA instead took it upon itself to find some (but not complete) flexibility in the mandate, and it injected that flexibility quietly, ostensibly following the literal mandate. On remand, the D.C. Circuit in *American Trucking* accepted EPA's somewhat dishonest approach, but it did so for good reason: because *American Trucking* blessed this approach to the CAA as the one intended by Congress.[323]

It is the CAA's symbolic intent which differentiates the holdings in *Brown & Williamson* and *American Trucking*. In both cases, the overstated statute, read literally, would lead to an impractical result. In *Brown & Williamson*, the Court did not view the FDCA's broadly worded definitions of "drug" and "device" to have been designed for the instrumental purpose of forcing action in the face of excuses. The Court reasoned that despite the FDCA's broad statutory language, the history of tobacco-specific legislation, and the structure of the FDCA together demonstrated that the FDCA's apparent application to tobacco was unintentional. In contrast, *American Trucking* came out the way it did because the CAA intentionally asks EPA to do the impossible. The Court therefore upheld the CAA's symbolic mandate as written, unanimously and emphatically.

Just as section 109 clearly commands that EPA ignore cost, the definitions and duties of the CAA apply to CO_2 unambiguously. CO_2 is most defi-

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[322] FDA v. Brown & Williamson Tobacco Corp., 529 U.S. 120, 131–33 (2000) ("We need not resolve [whether the definitions of drugs and devices reach tobacco products], however, because assuming *arguendo* [that they do] . . . the FDA's claim to jurisdiction contravenes the clear intent of Congress.") (discussing FDA's justification for its regulation in light of the FDCA's statutory terms). *See supra* notes 234–236 and accompanying text.

[323] *See supra* notes 58–61 and accompanying text.

nitely an air pollutant,[324] and CO_2 most definitely harms health and welfare. The terms of the CAA reach CO_2, and EPA therefore has a duty to act.

4. Carbon Dioxide's Status as an Air Pollutant

EPA's most forceful justification for inaction was the argument that CO_2 is not an air pollutant. EPA did not emphasize this point before the D.C. Circuit, but both the Fabricant Memo and EPA's formal rejection of ICTA's petition for rulemaking asserted this argument.[325] Although on its face EPA's claim focused on statutory construction, it was really a kind of policy argument, since it was founded on EPA's contention that CO_2 cannot be regulated successfully under the CAA. EPA's contention that CO_2 is not a pollutant was founded entirely on EPA's "policy judgment" that CO_2 cannot be regulated successfully under the CAA. According to EPA, since CO_2 does not trigger CAA's regulatory provisions (in light of *Brown & Williamson*), CO_2 must not be an "agent" of "air pollution," and thus must not be an "air pollutant."[326]

EPA likely chose not to rehash this position in *Massachusetts v. EPA* because the argument fails as a matter of straightforward statutory construction. EPA's approach to the term "air pollutant" is hopelessly circular, nonsensically rolling the more complex inquiry about the applicability of the CAA's regulatory duties into what should be a preliminary definitional question.[327] CO_2 qualifies as an "air pollutant," as it is most certainly a "physical" and "chemical" substance emitted into the air.[328] Moreover, section 103's explicit statement that CO_2 is an air pollutant eliminates any reasonable doubt about CO_2's status as an "air pollutant."[329]

Moreover, the CAA's definition for air pollutant is itself a kind of symbolic mandate. CAA section 302(g) provides a definition of "air pollutant" that is not only broad, it is absurdly broad.[330] An air pollutant is defined as "any air pollution agent or combination of such agents, including any physical, chemical, biological, [or] radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air."[331] To say

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[324] *See infra* Part III.B.4.

[325] *See supra* notes 261–264 and accompanying text.

[326] *Id.*

[327] In fact, under Fabricant's approach, an interpreter of the CAA has to assess the entire *Brown & Williamson* issue just to determine whether something is an "air pollutant." Fabricant only finds that CO_2 is not an air pollutant in a footnote at the very end of his memo. Fabricant Memo, *supra* note 5, at 10–11.

[328] CAA § 302(g), 42 U.S.C. § 7602(g) (2005).

[329] CAA § 103(g), 42 U.S.C. § 7403(g) (2005). Section 103 directs EPA to study nonregulatory methods for reducing a number of air pollutants, including CO_2. *Id.* Although the provision emphasizes that it

that an air pollutant is "any air pollution agent" is tautological. The rest of the definition, which establishes what the term air pollutant "includes," classifies nearly everything in the known universe that enters the air a CAA air pollutant. This otherwise uninformative definition makes sense when viewed as a statement of symbolic intent. The definition is broad enough to prevent EPA from claiming that a substance is not an "air pollutant" in order to shirk the CAA altogether. Since CAA regulation will only be triggered when a pollutant is shown to harm health or welfare, the absurd definition does not lead to absurd results.

EPA's definitional argument, though couched as a legal claim, is really a policy argument. The President and the EPA Administrator have repeated the claim that CO_2 is not a pollutant; it is an easy explanation for inaction that no doubt sells well with a certain segment of the public.[332] By making the argument in a legal opinion, EPA gives added credence to the otherwise absurd contention that CO_2 cannot be bad since it is a natural part of the air and we breathe it every day.[333] Indignant opponents of the CAA dutifully aped EPA: an Alliance of Automobile Manufacturers spokesman, for example, said after the Fabricant Memo was issued, "[w]hy would you regulate a pollutant that is an inert gas that is vital to plant photosynthesis and that people exhale when they breathe? That's not a pollutant."[334] The broad definition of "air pollution" was one of many statutory steps Congress took to prevent excuse-making from delaying or preventing implementation of the CAA. However, under *Massachusetts v. EPA*, it is not entirely clear why EPA's position does not qualify as a "policy judgment" that EPA is free to employ as a rationale for resisting action altogether.

C. Back-End Pragmatism as a Response to EPA's Legislative History and Structural Infirmity Arguments: Making CO_2 Regulation Work

EPA's contention that the CAA does not authorize CO_2 regulation was founded on both legislative history and on the CAA's alleged structural incapacity to address CO_2 and global warming rationally. As in *Brown & Williamson*, EPA employed a structural argument as evidence of congressional intent: given how poorly suited the CAA's detailed provisions would be at addressing CO_2, Congress must not have wanted CO_2 to fall under the statute.

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[332] Jennifer Lee, *7 States Sue EPA Over Standards on Air Pollution*, N.Y. TIMES, Feb. 21, 2003, at A25 (quoting EPA official stating that "[b]oth [EPA] Administrator Whitman and the president have been clear that carbon dioxide is not a pollutant under the Clean Air Act . . . . We have in place all the federal air quality standards required by the Clean Air Act.").

[333] Actually, as the Clinton EPA noted, many air pollutants are also naturally occurring. Cannon Memo, *supra* note 200, at 3.

[334] Seth Borenstein, *Bush Administration Says It Won't Regulate Carbon Dioxide*, KNIGHT RIDDER/TRIB. NEWS SERVICE, Aug. 29, 2003.

As Judge Tatel argued in his dissent in *Massachusetts v. EPA*, EPA's equation of the legislative history of tobacco regulation with global warming-related legislative history does not withstand scrutiny.[335] *Brown & Williamson* built a formidable case for the proposition that Congress never intended to allow FDA to regulate tobacco. The Court marshaled a wide range of evidence of legislative intent to bolster its argument, including the detailed tobacco regulatory regime outside of FDA: FDA's repeated denials of tobacco jurisdiction, spanning seven decades; the conflict between FDCA's core purpose to ensure the safety of therapeutic drugs and FDA regulation of a non-therapeutic product like tobacco; and numerous occasions when Congress rejected proposals to grant FDA explicit tobacco authority. In the case of CO_2, EPA mustered nothing but the last category of evidence, that is, evidence that Congress has repeatedly rejected proposals to regulate CO_2 explicitly. EPA's legislative history argument is really founded on congressional silence, generally considered one of the weakest indicators of congressional intent.[336]

Thus, EPA's analogy to *Brown & Williamson* depends on the contention that EPA simply cannot be adapt the CAA to regulate a pollutant like CO_2 or a uniquely non-local problem like global warming.[337] While this impossibility argument should be rejected as contrary to the CAA's symbolic intent, it is also important to consider how the CAA might be adapted to devise a CO_2 regulatory regime. EPA is not wrong about the CAA structure per se; the CAA's NAAQS provisions have in mind local air pollution, and many CAA provisions are less than ideal for addressing global warming. Even so, the structure of the CAA could be functionally applied to global warming, just as it is functionally applied in other circumstances despite its flaws. In the Fabricant Memo and in its arguments before the D.C. Circuit, EPA overstated the difficulty of applying the CAA's structural requirements to CO_2. EPA then used its own over-estimation of the unworkability of the CAA as a reason not to act at all. CAA symbolism is designed to preempt this very strategy. Despite EPA's protestations to the contrary, CAA back-end pragmatism can rationalize a duty to regulate CO_2 at the front end of the CAA.

1. Carbon Dioxide Under NAAQS

EPA's CO_2 impossibility argument focuses on the interaction between a hypothetical CO_2 NAAQS and the SIPs that such a standard would trig-

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[335] Massachusetts v. EPA, 415 F.3d 50, 67–73 (D.C. Cir. 2005) (Tatel, J., dissenting).

[336] *See, e.g.*, Scripps-Howard Radio, Inc. v. FCC, 316 U.S. 4, 11 (1942) (congressional silence generally an unreliable indication of legislative intent).

[337] Massachusetts v. EPA, 415 F.3d at 69–71 (Tatel, J., dissenting). Even Judge Tatel's dissent does not address EPA's unfeasibility arguments in great detail because these arguments focus primarily on NAAQS and Title I, whereas *Massachusetts v. EPA* concerned EPA's Title II details. *See id.* at 70.

ger. Once EPA sets NAAQS for the criteria pollutants, the standards are implemented by the states through the adoption of SIPs that must be approved by EPA.[338] The CAA forbids EPA from approving a SIP submitted by a state if the SIP is "substantially inadequate to attain or maintain the relevant" NAAQS.[339] When EPA finds a SIP inadequate, it must reject the SIP and demand that the state revise the SIP until it does guarantee attainment of the national standards.[340]

EPA argues that despite the habit of giving SIPs the benefit of the doubt it would have no authority to approve any CO_2 SIPs since CO_2 concentrations are globally uniform.[341] EPA could provide no straight-faced explanation for approving a SIP as if it would attain a CO_2 NAAQS. A single state's emissions controls would barely make a dent in global emissions of CO_2; even all SIPs combined would not reduce the global concentration of CO_2, since that concentration is constantly rising as a result of emissions from outside the United States. EPA apparently believes this quandary means that if applied to CO_2, the CAA's structure would break down immediately and force a congressional rewrite.

Congress, however, has already provided, within the CAA, a means to escape this dilemma. CAA section 179B states that notwithstanding any other requirements, the EPA shall approve of any SIP where "the submitting State establishes to the satisfaction of the Administrator that the implementation plan of such State would be adequate to attain and maintain the relevant national ambient air quality standards by the attainment date . . . but for emissions emanating from outside the United States."[342] Section 179B explicitly allows EPA to approve SIPs under the circumstances EPA claims would make CO_2 regulation unworkable. States would submit CO_2 SIPs to EPA, mandating emissions controls and other required measures. The states would be able to admit that their SIPs were insufficient to guarantee attainment, because global emissions of CO_2 intermingle with emissions from within their state. EPA could approve the SIPs pursuant to section 179B, since the failure to attain is caused by emissions from outside the United States.

A precise reader of section 179B might protest that it does not resolve the CAA quandary. Even in an imaginary world in which CO_2 emissions from outside the United States suddenly cease, SIPs would still be insufficient to comply with a hypothetical NAAQS. This is because U.S. emissions themselves are enough to ensure that the global CO_2 concentration

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[338] *See* REITZE, *supra* note 15, at 58–61 (describing SIP process).

[339] CAA § 7410(k)(5), 42 U.S.C. § 7410(k)(5) (2005).

[340] *Id.*

[341] EPA Brief, *supra* note 237, at 33–34.

[342] CAA § 179B(a), 42 U.S.C. § 7509a(a)(2) (2005). *See also* Guzy Letter 1, *supra* note 201, at 6 (suggesting § 179B as a solution to the attainment quandary); Massachusetts v. EPA, 415 F.3d at 70 (Tatel, J., dissenting) (citing 42 U.S.C. § 7509a(a) as a possible solution to the NAAQS problem but without further discussion).

continues to rise.[343] No single state's SIP could reduce emissions enough to change this fact. Such a critic would argue that it is not really appropriate to apply 179B to CO_2, since it is not really true that a CO_2 SIP fails to attain NAAQS because of "emissions emanating from outside the United States."

This argument should fail because we have reached the stage of CAA implementation where back-end pragmatism should kick in. Strictly interpreting and applying section 179B might prove impossible, but it would be an easy matter for a court to sanction EPA's approval of CO_2 SIPs on the basis of the section 179B safety valve. If it is a stretch of 179B to apply to CO_2, it is not much of a stretch, and it is the same kind of back-end deception approved in *American Trucking*. At the front end—the imposition of a duty to regulate CO_2—the CAA should be read literally and the symbolic mandate enforced. At the back end—as the states and EPA put that mandate into practice—the states and EPA would receive deference and flexibility.

Once the attainment quandary is resolved, EPA could design and implement a NAAQS for CO_2. The remainder of the NAAQS structure, though admittedly designed with local air pollution in mind, would work reasonably well to control CO_2. It would not require EPA to ban all CO_2 emissions the way the FDCA would require such nonsensical regulation of tobacco. On the contrary, even though state actions could not guarantee compliance with the NAAQS, the regulatory steps taken by EPA and the states would all be both useful and reasonable. A brief review of the rules governing NAAQS demonstrates this point.

If EPA were to declare CO_2 a criteria pollutant under CAA section 108, EPA would first be required to engage in a comprehensive synthesis of the existing science and research on CO_2 and develop a CO_2 "criteria document."[344] This duty would arise even before EPA set the NAAQS for CO_2. EPA, in collaboration with an independent committee of experts, would create the criteria document that assesses all the health and welfare impacts of CO_2.[345] The creation of this criteria document is a substantial undertaking with intrinsic value in assessing the effects of a given pollutant and strategies for its abatement.[346] The fact that CO_2 emissions diffuse through-

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[343] CO_2 stays in the atmosphere for about a hundred years. Thus, if the entire world stopped emitting CO_2 entirely, global concentrations would go down only very slowly. The total U.S. emissions on their own exceed the rate of natural dissipation of CO_2.

[344] CAA § 108(a)(1)-(2), CAA § 109(d); 42 U.S.C. § 7408(a)(1)-(2) (2005), 42 U.S.C. § 7409(d) (2005).

[345] *Id.*; *see also* Lead Indus. Ass'n, Inc. v. EPA, 647 F.2d 1130, 1137 (D.C. Cir. 1980) (criteria document must "accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health or welfare which may be expected from the presence of such pollutant in the ambient air, in varying quantities") (quoting CAA § 108(a)(2), 42 U.S.C. § 7408(a)(2) (2005)).

[346] Recent criteria documents for ozone and particulate matter were 2400 and 1500 pages, respectively. Coglianese & Marchant, *supra* note 9, at 1267 n.49. *See also Lead Indus.*, 647 F.2d at 1137 (describing the "rigorous scientific and public review" leading to the criteria document's completion).

out the atmosphere would not render useless this systematic collection of information about CO_2.

Next, EPA would have to set the CO_2 NAAQS. Because section 179B would allow states to adopt SIPs that admit their inability to attain this standard, the standard-setting stage would diminish in importance. However, EPA would have an important choice to make as to whether or not the CO_2 standard should exceed current global concentrations of CO_2. A standard above the current global concentration would place the entire nation in attainment, thereby relaxing the requirements imposed upon states during the SIP process.[347] States in areas that already attain the standard—in this case, all states—would still submit SIPs to EPA, following less stringent emissions control. These SIPs prominently include PSDs, which, for example, would require that stationary sources impose the best possible emissions control technologies.[348] Such controls at the source would make perfect sense applied to CO_2.

As evidenced by EPA's 2002 Climate Action Report, current global warming science strongly suggests that harmful global warming impacts will occur even were CO_2 concentrations to be frozen where they are now.[349] According to *American Trucking*, EPA would have to justify whatever standard it chose based on the current scientific assessment of CO_2's health and welfare impacts and without reference to economic cost.[350] The science of global warming is sufficiently clear to warrant a NAAQS below current concentrations. Nevertheless, EPA would still enjoy a lot of flexibility. Cost would be of minimal import since the content of state SIPs would not depend as much as they usually do on the standard EPA chose. And EPA would not be required to set a standard equal to pre-industrial concentrations of CO_2, since that would amount to an absolutist standard just like the zero-standards for ozone and PM not required under *American Trucking*. Conceivably EPA could even justify a standard above current concentrations by arguing that current global warming science only demonstrates that CO_2 will harm health and welfare once it exceeds the CO_2 level chosen in the NAAQS.[351]

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[347] It should be noted that even apart from section 179B, setting the CO_2 NAAQS above current global concentrations would be another way for EPA to avoid the NAAQS quandary. Since such a NAAQS would mean all states already attain the standard, EPA would not have to reject SIPs on the basis of not conforming with NAAQS.

[348] *See generally* Alaska Dep't of Envtl. Conservation v. EPA, 124 S.Ct. 983 (2004) (resolving a PSD dispute and explaining the PSD requirements in detail).

[349] *See* CLIMATE ACTION REPORT, *supra* note 211, at 82 (stating that even if emissions decline, "the long lifetimes of greenhouse gases already in the atmosphere and the momentum of the climate system are projected to cause climate to continue to change for more than a century.").

[350] *See Lead Indus.*, 647 F.2d at 1153. ("Congress made it abundantly clear that considerations of economic or technological feasibility are to be subordinated to the goal of protecting health by prohibiting any consideration of such factors.").

[351] *Cf.* Am. Trucking Ass'ns, Inc. v. EPA, 283 F.3d 355, 379 (D.C. Cir. 2002) (accepting EPA's decision to set NAAQS for ground-level ozone above zero, because, although

Assuming a NAAQS were in place that left the whole nation out of attainment, the full SIP requirements would be triggered. What is remarkable is that these requirements do make sense applied to CO_2. The CAA requires each SIP to (1) "include enforceable emission limitations and other control measures, means, or techniques . . . as may be necessary or appropriate" to meet the statutory attainment deadline; (2) provide for monitoring and data collection on air quality; (3) prohibit activities altogether if they will significantly deteriorate air quality; (4) provide the necessary state resources to enforce the SIP; (5) require owners and operators of stationary sources to monitor emissions and provide reports to the state; and (6) allow for SIP revision if necessary when NAAQS are revised or when improved methods of emissions control are developed.[352] All of these requirements could clearly be part of a rational state-federal cooperative regime to reduce CO_2 emissions.

Unique characteristics of CO_2 emissions undoubtedly would make application of certain CAA requirements awkward. For example, the CAA currently defines a "major stationary source" of an air pollutant as a source emitting, or capable of emitting, more than 100 tons of the pollutant per year.[353] While that is a large amount for most air pollutants, it is a very modest emission of CO_2. Such a definition would subject many small businesses and commercial office buildings to stationary source permit requirements.[354] Back-end pragmatism can solve difficulties like these. For example, EPA might allow state SIPs to issue universal permits to small sources, thus meeting the literal requirement flexibly. Imperfections in the detailed CAA regime are inevitable given the broad symbolic mandates that trigger its duties and the incredibly detailed mandates at the back end. However, the NAAQS system could work for CO_2: a CO_2 NAAQS would inspire substantial reductions in emissions without contorting the CAA's requirements beyond recognition or in ways categorically different from those always required by the statute's symbolic provisions.

2. Regulating Carbon Dioxide Under New Source Performance Standards

EPA's argument against regulating CO_2 focused on the NAAQS regime, but there are other regulatory provisions of Title I that could also apply to CO_2. In particular, section 111's New Source Performance Standard ("NSPS") regulations could be tailored to CO_2 in a rational and functional manner. Indeed, since NSPS is triggered whether or not CO_2 is listed as a

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ozone might be harmful at any concentration, impacts below the standard EPA chose were "less certain").

[352] CAA § 110(a)(2), 42 U.S.C. § 7410(a)(2) (2005).

[353] CAA § 302(j), 42 U.S.C. § 7602(j) (2005); *see also* Guzy Letter 1, *supra* note 201, at 7.

[354] Guzy Letter 1, *supra* note 201, at 7.

criteria pollutant and whether or not EPA sets a CO_2 NAAQS, the presence of such mandates within the CAA makes EPA's structural argument against all action look even weaker.[355]

NSPSs are emissions control standards for stationary sources of emissions of any air pollutant.[356] NSPSs apply to sources rather than the air itself, requiring specific industries to implement direct emissions limitations regardless of the level of pollutants in the air. Prior to setting NSPS standards under CAA section 111(b)(1)(A), "the Administrator shall" list each category of stationary sources that "in his judgment causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare."[357] As with the NAAQS requirement, the trigger for section 111 is anticipated harm to the public health or welfare; but while NSPS works in tandem with the NAAQS program, it does not depend on it. In fact, the D.C. Circuit has held that NSPS applies to pollutants whether or not they are listed as criteria pollutants subject to NAAQS.[358] NSPS would make perfect sense if applied to CO_2, as was argued by the state attorneys-general petitioners in *Massachusetts v. EPA*.[359]

Unlike when setting air quality standards, EPA is required to consider cost when setting NSPS, ensuring that CO_2 NSPS would be rational and achievable.[360] Some critics have alleged that NSPS cannot apply to CO_2 because there are no cost-effective, commercially available systems of controlling CO_2 emissions.[361] This argument is premised on the fact that CO_2 emissions are an inevitable by-product of the burning of CO_2; removing it from the emissions stream requires either not burning the fuel or employing capture technology not currently available. Yet this is a feeble argument against setting CO_2 standards of performance. The CAA allows EPA to

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[355] *See* Massachusetts v. EPA, 415 F.3d 50, 70 (D.C. Cir. 2005) (Tatel, J., dissenting) (arguing that even assuming the NAAQS provisions were unworkable with respect to CO_2, "the absurd-results canon would justify at most an exception limited to the particular unworkable provision").

[356] CAA § 111(a)(1)-(2), (b)(1)(a), 42 U.S.C. § 7411(a)(1)-(2), (b)(1)(a) (2005). Despite the term "New Source Performance Standards," NSPS applies to existing sources as well. *See* CAA § 111(d), 42 U.S.C. § 7411(d) (2005).

[357] CAA § 111(b)(1)(A), 42 U.S.C. § 7411(b)(1)(A) (2005).

[358] Ala. Power Co. v. Costle, 636 F.2d 323, 370 n.134 (D.C. Cir. 1979).

[359] Notice of Intent to Sue Under Clean Air Act § 304(b)(2), at 2.

[360] CAA § 111(a)(1), 42 U.S.C. § 7411(a)(1) (2005) (NSPS should "reflect[ ] the degree of emission limitation *achievable*" through the best available technology that "has been *adequately demonstrated.*") (emphasis added). The CAA explicitly prevents EPA from setting NSPSs that require infeasible control measures. CAA § 111(h)(1), 42 U.S.C. § 7411(h)(1) (2005).

[361] NMA Opinion, *supra* note 218, at section II(C)(2). Critics also point out that the D.C. Circuit has applied a "rigorous standard of review under section 111" and that "to be achievable . . . a uniform standard must be capable of being met under most adverse conditions which can reasonably be expected to recur and which are not or cannot be taken into account in determining the 'costs' of compliance. The statutory standard is one of achievability, given costs." Nat'l Lime Ass'n v. EPA, 627 F.2d 416, 429, 431 n.46 (D.C. Cir. 1980). But this rigorous standard was applied pre-*Chevron* and has little bearing on the unarguable feasibility of many potential CO_2 standards that could be adopted under NSPS.

contemplate a wide array of regulation under NSPS, stating that if "it is not feasible to prescribe or enforce a standard of performance, [the Administrator] may instead promulgate a design, equipment, work practice, or operational standard, or combination thereof, which reflects the best technological system of continuous emission reduction."[362] Plenty of possible regulations can be imagined that would conform to the NSPS clauses of the CAA while simultaneously addressing the unique emissions-control challenges presented by CO_2. EPA could require energy efficiency standards for fossil fuel burning sources, thereby decreasing CO_2 output per unit of useful energy generated. Other promising options exist in offsets or emissions trading and in emerging carbon sequestration technologies.

3. Regulating Carbon Dioxide Under CAA Title II

The CAA's motor vehicle provisions were the primary target of the petitioners in *Massachusetts v. EPA* precisely because they outline an avenue for regulating CO_2 emissions that is more straightforward and less problematic than the NAAQS regime. Like NSPS, the motor vehicle emissions regulations under Title II of the CAA do not depend on the NAAQS program or suffer from its particular weaknesses; a pollutant need not be designated a "criteria pollutant" to be subject to Title II regulation. CAA section 202(a)(1) directs only that "[t]he Administrator shall by regulation prescribe . . . standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles . . . which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare."[363] Again like NSPS, CAA section 202 stipulates that motor vehicle emission standards must be technologically achievable before being enforced.[364]

EPA's impossibility arguments with respect to regulation of vehicular CO_2 emissions are exceedingly weak. EPA rightly stated that the Department of Transportation already sets fuel economy standards through the CAFE program. But EPA wrongly inferred that Congress has made clear CAFE and CAFE alone should set fuel economy standards.[365] As Judge Tatel pointed out in his dissent, "the fact that DOT sets fuel economy standards pursuant to the EPCA in no way prevents EPA from setting standards pursuant to the CAA."[366] The legislative history of EPCA makes quite clear that Congress was aware of the inevitable interplay between emissions standards under the CAA and fuel economy standards under EPCA,

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[362] CAA § 111(h)(1), 42 U.S.C. § 7411(h)(1) (2005).
[363] CAA § 202(a)(1), 42 U.S.C. § 7521(a)(1) (2005).
[364] CAA § 202(a)(2), 42 U.S.C. § 7521(a)(2) (2005).
[365] *See supra* note 253 and accompanying text*; see also* EPA Brief, *supra* note 237, at 72–74.
[366] Massachusetts v. EPA, 415 F.3d 50, 80 (D.C. Cir. 2005) (Tatel, J., dissenting).

and did not explicitly prevent EPA from setting standards related to fuel economy.[367]

EPA was correct that "CO_2 tailpipe standards" under section 202 would either "abrogate [CAFE's] regime (if the standards were effectively more stringent than the applicable CAFE standard) or be meaningless (if they were effectively less stringent)."[368] This argument, however, relies on the faulty premise that the only "standards" EPA could set to address CO_2 under the CAA would be CAFE-style fuel efficiency standards. Actually, a pragmatic and flexible approach to implementing CAA § 202 might allow EPA to consider a wide range of standards not in conflict with CAFE, such as requirements for installing specific fuel saving technologies, standards influencing or regulating the use of motor vehicles, or at the very least standards that require monitoring and calculation of vehicular CO_2. EPA's argument is especially ironic given that just months after EPA's CO_2 opinions were released, the Administration made what would appear the opposite argument before the Supreme Court, declaring that the term "standard" in CAA Title II "embraces . . . a broad range of regulations" that are "not limited to quantitative measures of tailpipe emissions for particular vehicles."[369]

EPA's contention that CO_2 standards for cars might cause tension with CAFE has some merit, and would have to be addressed. But it is another example of a challenge that could be resolved through back-end pragmatism and without shirking the CAA mandate to initiate regulation in the first place.

D. Some Final Thoughts on Massachusetts v. EPA

In *Massachusetts v. EPA*,[370] the D.C. Circuit failed to enforce the CAA according to its symbolic intent. The decision has an odd tone of resignation. Despite the complexity and importance of the dispute, Judge Randolph's majority opinion devotes fewer than four full pages to discussing the merits. The merits discussion cites only one previous CAA decision, and misrepresents its holding.[371] The opinion does not discuss *American*

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[367] *Id.* at 72–73 ("Congress acknowledged, and indeed accepted, the possibility of regulatory overlap."); *see also* Christopher T. Giovinazzo, *California's Global Warming Bill*, 30 ECOL. L.Q. 893, 906 (2003) (discussing Congressional awareness that CAA emissions standards would affect fuel economy under EPCA).

[368] Notice of Denial of Petition for CO_2 Rulemaking, 68 Fed. Reg. 52,922, 52,929 (Sept. 8, 2003).

[369] Brief for the United States as Amicus Curiae Supporting Reversal at 11, 15 n.3, Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist., 541 U.S. 246 (2004) (No. 02-1343). The United States argued that a rule requiring the purchase of low emission vehicles was a CAA emissions standard. This argument was successful; the Court held that the purchasing rules constituted emissions standards. Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist., 541 U.S. 246, 255 (2004).

[370] 415 F.3d 50 (D.C. Cir. 2005).

[371] *Id.* at 56–59. The one case is Ethyl Corp. v. EPA, 541 F.2d 1 (D.C. Cir. 1976), dis-

Trucking or make a single reference to the CAA's legislative history. The opinion includes only a cursory overview of EPA's uncertainty argument, and devotes even less space—a single paragraph—to EPA's many other "policy judgments."[372] The opinion makes no attempt to assess whether these policy judgments were reasonable or supported by evidence in the record, and makes no reference to the Administrative Procedure Act's "arbitrary and capricious" standard of review.

Judge Sentelle's opinion, dissenting in part and concurring in the judgment, renders *Massachusetts v. EPA* even weaker. Judge Sentelle strongly implies that he did not support the majority opinion's reasoning, only its denial of relief for petitioners.[373] His opinion further declares that although he would rule against petitioners, "[t]his is not to say that petitioners' complaints are wrong," but rather that "[t]here are two other branches of government. It is to those other branches that the petitioners should repair."[374]

Together, the opinions of Judge Randolph and Judge Sentelle create a very weak and unhelpful CAA precedent. This may be the decision's only saving grace. Hopefully, the majority's sparse reasoning and tepid support may mute the possibility that unconstrained "policy judgments" will weaken the CAA's symbolic mandates in the future. Even apart from the CAA's symbolic intent, as a matter of traditional administrative law, it simply cannot be the law that an agency may invoke any of the "policy judgments Congress makes when it decides whether to enact legislation"[375] as a basis for declining to regulate in accordance with a statute's specific mandates. Such a holding represents a crude oversimplification of *Chevron* deference, and opens the door to excuses and delays that the drafters of the CAA clearly tried to preempt.

Had the D.C. Circuit granted the petitions for review and forced EPA to regulate CO_2, it is quite possible that in the current political climate, Congress would have immediately decried that decision and legislated to prevent regulation. Though such a result might not have produced a coherent national policy responding to global warming, it would at least have forced Congress to address the issue head-on. Given the broad public support for action on global warming,[376] more faithful judicial enforcement

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cussed above. The opinion also cites one Clean Water Act precedent, Envtl. Def. Fund v. EPA, 598 F.2d 62, 82 (D.C. Cir. 1978), ostensibly to support the position that EPA may make "policy judgments" in choosing whether to regulate. Ironically, as in *Ethyl*, the *Environmental Defense Fund* court approved of "policy judgments" made by EPA in order to justify regulation, not policy judgments leading EPA to abstain from regulating.

[372] Massachusetts v. EPA, 415 F.3d at 57–58.

[373] *Id.* at 59–61 (Sentelle, J., dissenting in part and concurring in the judgment).

[374] *Id.* at 60.

[375] *Id.* at 58.

[376] In a July 2005 poll, ninety-four percent of Americans said the United States should make efforts to limit greenhouse gas emissions, with seventy-three percent supporting U.S. participation in the Kyoto protocol, the international agreement on global warming. Scott Heiser, *U.S. Citizens Back Action to Curb Greenhouse Gas Emissions*, FT.COM, July 5, 2005, *available at* 2005 WLNR 10707814.

of the CAA might have helped spur the very action that the CAA's symbolic provisions were designed to force.

The opinions by Judges Randolph and Sentelle give the impression that both preferred to dispense with a difficult case quickly and with as little discussion as possible. It is a shame that the impulse to avoid the political firestorm of global warming policy seems now to have overcome all three branches of the federal government. As Judge Tatel concluded in his dissent, "[a]lthough this case comes to us in the context of a highly controversial question—global warming—it actually presents a quite traditional legal issue: has the Environmental Protection Agency complied with the Clean Air Act?"[377] A faithful reading of Congress's symbolic intent in enacting the CAA proves that the right answer was "no."

IV. Conclusion

The Clean Air Act is a symbolic law: it intentionally mandates more than can be done. Because the law is symbolic, it cannot be read and implemented literally; EPA must inject pragmatism to rationalize the CAA's otherwise absurd literal results. Yet because the statute's language is unequivocal, EPA must inject that pragmatism quietly.

Symbolism opens the CAA to obvious lines of criticism. Many argue that the CAA is draconian, since it demands extreme regulation that is too costly to justify. Indeed, more than thirty-five years after the original CAA was enacted, much of the nation still fails to comply with its strictures. Other critics complain that the CAA is deceptive, since it drives the debate over how to enforce the law underground. This lack of transparency distorts and disguises agency policy-making, undermining public participation and accountability.

Despite these criticisms, in *American Trucking* the Supreme Court resoundingly affirmed the CAA's symbolism. Like the Congresses that adopted the CAA's unequivocal terms, the Court did not declare explicitly that complying with the literal requirements of the CAA would be functionally impossible. Because the approval of symbolism was not explicit, this aspect of the *American Trucking* decision has been viewed mostly as a flaw or has not been noticed at all. Yet paradoxically, the Court affirmed CAA symbolism more forcefully by accepting symbolism silently than it could have with a more transparent opinion. *American Trucking*'s silent approval of CAA symbolism got Congress's intent precisely right.

CAA symbolism has instrumental value, and overall it works as envisioned by Congress. Because symbolism preempts excuses that might halt regulation entirely, symbolism precommits EPA and regulated parties to expending resources on action rather than resistance. On the front end, where the CAA triggers the duty to act, the CAA's unequivocal language

[377] Massachusetts v. EPA, 415 F.3d at 82 (Tatel, J., dissenting).

prevents EPA from escaping its duties. On the back end, where EPA interprets and implements the law in detail, courts permit EPA a healthy dose of pragmatism to account for the infeasibility of literal enforcement. Back-end pragmatism prevents the CAA from becoming dysfunctional. Front-end symbolism creates a powerful bias in favor of action that wards off categorical challenges to any kind of pollution control.

In 2003, EPA decided that the CAA imposes no duty or responsibility to address global warming or CO_2, its principal cause. EPA's opinion amounted to little more than a series of predictable rationalizations—the precise arguments Congress knew would be made over and over again as reasons not to clean the air. "It's too expensive." "The science is too uncertain." "The requirements just won't work." Unfortunately, the D.C. Circuit in *Massachusetts v. EPA* lacked either the political courage or the comprehension of the CAA to apply the CAA according to its symbolic intent.

Despite EPA's lamentations to the contrary, and despite the imperfections of the CAA, EPA can create a workable regime for regulating CO_2. Although *Massachusetts v. EPA* failed to command EPA to devise such a regulatory regime, EPA retains the authority under the existing CAA to address CO_2 in the near future. Yes, it would be hard, uncertain, expensive and contentious. The CAA has a simple answer to those complaints: do something anyway.