No. 99-1426

In the Supreme Court of the United States

AMERICAN TRUCKING ASSOCIATIONS, INC., ET AL., CROSS-PETITIONERS

v.

CAROL M. BROWNER, ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY, ET AL.

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

BRIEF FOR THE FEDERAL RESPONDENTS

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QUESTION PRESENTED

Whether the court of appeals properly reaffirmed the longstanding principle that the Environmental Protection Agency is to set and revise National Ambient Air Quality Standards (NAAQS) based on consideration of the effects on public health and public welfare posed by a pollutant's presence in the ambient air, and not on consideration of the technological feasibility, cost, or other alleged effects of implementing measures to attain NAAQS.

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OPINIONS BELOW

The opinion of the court of appeals (Pet. App. 1a-69a) is reported at 175 F.3d 1027.[1] The opinion on petitions for rehearing and dissenting statements on denial of rehearing en banc (Pet. App. 70a-101a) are reported at 195 F.3d 4.

JURISDICTION

The decision of the court of appeals was entered on May 14, 1999. Petitions for rehearing were granted in part and denied in part on October 29, 1999. The federal government's petition for a writ of certiorari in No. 99-1257 was filed on January 27, 2000, and was granted on May 22, 2000. The conditional cross-petition of American Trucking Association, *et al.*, was filed on February 28, 2000, and was granted on May 30, 2000. The jurisdiction of this Court rests on 28 U.S.C. 1254(1).

[1] "Pet. App." refers to the petition appendix in *Browner* v. *American Trucking Ass'ns,* No. 99-1257.

STATUTORY AND REGULATORY PROVISIONS INVOLVED

Relevant portions of Sections 101, 108, 109, and 110 of the Clean Air Act, 42 U.S.C. 7401, 7408, 7409, 7410, are set forth at App., *infra*, 1a-8a. Other sections of the Clean Air Act are set forth at Pet. App. 105a-126a.

The EPA rules at issue in this case are set forth at Pet. App. 102a-104a.

STATEMENT

Section 109 of the Clean Air Act (CAA), 42 U.S.C. 7409, requires EPA to establish and periodically revise primary National Ambient Air Quality Standards (NAAQS) "requisite to protect" public health with "an adequate margin of safety," and secondary NAAQS "requisite to protect" public welfare. EPA is to set NAAQS "based on" the "air quality criteria" that EPA must prepare under Section 108. 42 U.S.C. 7409(b). Section 108 of the Act further specifies that the air quality criteria for each pollutant subject to the NAAQS requirement must "accurately" reflect "the latest scientific knowledge" on the effects on public health and public welfare posed by "the presence of such pollutant in the ambient air, in varying quantities." 42 U.S.C. 7408(a)(2).

In the thirty years since enactment of these provisions, EPA has consistently recognized that the plain language of Sections 108 and 109 requires the agency to set and revise NAAQS based solely on consideration of the effects of ambient air pollutants on public health and public welfare, and not on the feasibility or effects of measures designed to attain the NAAQS. In an unbroken line of cases beginning with *Lead Industries Ass'n* v. *EPA*, 647 F.2d 1130, 1148, cert. denied, 449 U.S. 1042 (1980), the District of Columbia Circuit has repeatedly, and "emphatically," affirmed this principle. *NRDC* v. *EPA*, 902 F.2d 962, 973 (D.C. Cir. 1990), cert. denied, 498 U.S. 1082 (1991); see Pet. App. 19a-21a; *American Lung Ass'n* v. *EPA*, 134 F.3d 388, 389 (D.C. Cir.

1998); *American Petroleum Inst.* v. *Costle*, 665 F.2d 1176, 1185 (D.C. Cir. 1981), cert. denied, 455 U.S. 1034 (1982); see also *NRDC* v. *EPA*, 824 F.2d 1146, 1158-1159 (D.C. Cir. 1987) (en banc) (*Vinyl Chloride*) (Section 109 "on its face does not allow consideration of technological or economic feasibility").

In their cross-petition seeking review of this longstanding interpretation, American Trucking Associations, *et al.* (ATA) have asked this Court to overturn a principle on which three decades of federal and state air quality regulation have rested. ATA would have EPA expand the range of factors that it considers in setting the NAAQS. Under ATA's approach, EPA would not only consider the health and welfare effects associated with the presence of a criteria pollutant in the ambient air, but would be required additionally to consider the feasibility, costs, and other effects of measures to *remove* the pollutant from the air.

As we explain in the Argument section of this brief, ATA's construction of the Act is inconsistent with the statutory text, with the overall scheme of the NAAQS program, and with other indicia of congressional intent. But it is important to emphasize at the outset a point that ATA, other industry groups, and their amici largely ignore: The CAA provides for consideration of economic and technological feasibility, but at *later stages* of the regulatory process. One might suppose from their submissions that setting the NAAQS is the sole component of the CAA's detailed process for improving air quality or that economic and technological feasibility are never considered in any other step of the CAA's elaborate process. That is simply not so.

The NAAQS serve as air quality targets for certain "criteria" pollutants based on the aggregate concentration of each in the ambient air; but the NAAQS are not, themselves, directly enforceable against regulated entities that emit those pollutants. See Pet. App. 26a-31a. Rather, the States seek to achieve the NAAQS through state implementation

plans (SIPs), which impose enforceable emission limitations and other pollution controls. See CAA § 110, 42 U.S.C. 7410. Economic and technological feasibility are taken into account at *that* stage of the regulatory program, when the States determine, in concrete form, what pollution controls are appropriate. See *Union Elec. Co.* v. *EPA*, 427 U.S. 246, 266-269 (1976).

As this Court has recognized, Congress provided "ample opportunity" for consideration of economic and technological feasibility at the implementation stage of the regulatory process. *Union Elec.*, 427 U.S. at 268. Moreover, if EPA or the States conclude at that later stage, when control alternatives receive detailed consideration, that they cannot accommodate the regulated community's concerns consistent with their statutory obligations, then the regulated community can—and regularly does—present its concerns to Congress. Congress has reserved to itself the responsibility for adjusting the CAA as necessary to accommodate concerns regarding societal costs, and Congress has taken legislative action when *it* has concluded that such action is warranted. See, *e.g.*, Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399 (imposing new requirements for nonattainment areas).

In our opening brief in No. 99-1257, we have provided the Court with a description of the CAA provisions governing the initial promulgation, revision, and implementation of NAAQS, Pet. Br. 2-8, as well as a summary of the extensive explanations for the Administrator's 1997 decisions to revise the NAAQS for particulate matter (PM) and ozone, *id.* at 8-15. We accordingly will provide here only a brief discussion of the statutory provisions put at issue by ATA's cross-petition. We will also clarify a few additional key points regarding the record basis for EPA's decisions to revise the PM and ozone NAAQS.

I. The Clean Air Act's NAAQS Provisions

Sections 108 and 109 of the CAA, which govern EPA's development of air quality criteria and NAAQS, were enacted in 1970. 84 Stat. 1678-1679.[2] Since then, the CAA has required EPA to set and periodically revise "primary" and "secondary" NAAQS for certain ubiquitous air pollutants, known as criteria pollutants. 42 U.S.C. 7409(a)(1) and (d)(1). EPA must set "primary" standards at levels that, "in the judgment of the Administrator," are "requisite to protect the public health" with "an adequate margin of safety." 42 U.S.C. 7409(b)(1). EPA must set "secondary" standards at levels that are "requisite to protect the public welfare" from any "known or anticipated adverse effects." 42 U.S.C. 7409(b)(2).

Section 109 requires both primary and secondary NAAQS to be "based on * * * criteria" that EPA develops under Section 108. Under that Section, EPA must identify, and develop "air quality criteria" for, pollutants that are emitted from "numerous or diverse" sources and that "may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. 7408(a)(1). Section 108 specifies that the "air quality

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[2] Congress first addressed the problem of air pollution through the Air Pollution Control Act of 1955, ch. 360, 69 Stat. 322, which authorized the Secretary of Health, Education, and Welfare (HEW) to conduct research activities. Congress later expanded HEW's authority to include, among other things, compiling and publishing air quality criteria based on scientific studies, Clean Air Act of 1963, Pub. L. No. 88-206, § 3(c), 77 Stat. 395. Congress later directed States to develop regionally based ambient air quality standards and provided mechanisms for enforcement, Air Quality Act of 1967, Pub. L. No. 90-148, § 108(c), 81 Stat. 492-494. Congress substantially revised that program through the Clean Air Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676, which provided for national ambient air quality standards and for state implementation. See 84 Stat. 1679. Congress continued to build on that program through the Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685, and the Clean Air Act Amendments of 1990, Pub. L. No. 101-549, 104 Stat. 2399. See text at pp. 21-25, *infra*.

criteria" shall reflect the effects on public health and public welfare associated with the "presence" of a criteria pollutant "in the ambient air":

> Air quality criteria for an air pollutant shall 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.

42 U.S.C. 7408(a)(2). The CAA then specifies three types of information—each of which falls within the general definition set forth above—that, "to the extent practicable," the criteria shall "include":

> (A) those variable factors (including atmospheric conditions) which of themselves or in combination with other factors may alter the effects on public health or welfare of such air pollutant;
>
> (B) the types of air pollutants which, when present in the atmosphere, may interact with such pollutant to produce an adverse effect on public health or welfare; and
>
> (C) any known or anticipated adverse effects on welfare.

42 U.S.C. 7408(a)(2)(A)-(C).

As we have previously explained in more detail (see 99-1257 Pet. Br. 5-8), the CAA sets out an elaborate process, resting on principles of federal-state cooperation, to ensure that the air throughout the Nation "attains" the NAAQS. Under the CAA, the primary mechanisms for implementing the NAAQS are the SIPs, which set forth the pollution control measures necessary to attain all NAAQS by statutorily required dates. The States are expressly authorized under Section 110 to consider the economic and technological feasibility of the pollution control measures they include in their

SIPs. *Union Elec.*, 427 U.S. at 256-269. As this Court has explained (*id.* at 266):

> Perhaps the most important forum for consideration of claims of economic and technological infeasibility is before the state agency formulating the implementation plan. So long as the national standards are met, the State may select whatever mix of control devices it desires * * * and industries with particular economic or technological problems may seek special treatment in the plan itself.

In addition, EPA itself has responsibility under the Act for taking various actions to implement the NAAQS. Just as the States may consider economic and technological feasibility in developing their SIPs, the Act generally grants EPA discretion to consider those factors when it acts to implement the NAAQS it has promulgated. For example, under Section 183 ("Federal ozone measures"), EPA is to issue control techniques guidelines, taking cost into account. 42 U.S.C. 7511b(a) and (e)(1)(A). Similarly, under Section 202(i)(2)(A)(i), EPA is to determine whether additional regulations for light-duty trucks are required to attain or maintain the NAAQS and, if so, to promulgate cost-effective regulations. 42 U.S.C. 7521(i)(2)(A)(i).[3]

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[3] See also, *e.g.*, CAA § 211(k)(1), 42 U.S.C. 7545(k)(1) (requiring EPA to promulgate standards for reformulated gas to be used in nonattainment areas, taking cost into account); CAA § 211(h)(1), 42 U.S.C. 7545(h)(1) (requiring EPA to set standards for gasoline volatility in nonattainment areas, taking cost into account); CAA § 213(a)(3), 42 U.S.C. 7547(a)(3) (requiring EPA to determine whether emissions from nonroad engines contribute significantly to ozone concentrations in more than one nonattainment area and to promulgate appropriate nonroad regulations, considering costs); CAA § 202(a), 42 U.S.C. 7521(a) (authorizing EPA to set engine standards for pollutants that may "reasonably be anticipated to endanger public health or welfare," taking the cost of compliance into account).

II. The Particulate Matter and Ozone Rules

ATA's cross-petition presents a straightforward issue of statutory construction that may be resolved without consideration of the records in the underlying rulemaking proceedings. Nevertheless, we must briefly respond to the characterization of those rulemaking records by ATA and its supporters. Contrary to that portrayal, those records show an extensive body of newly available scientific information, in both the PM and ozone rulemakings, that called for revision of the existing standards to address a wide range of adverse health effects.

1. EPA's revised PM and ozone NAAQS address real and significant effects, not merely hypothetical risks. EPA was confronted with consistent and persuasive evidence, from study after study, that as PM levels rise the number of people who actually die or enter hospitals—especially due to cardiovascular and respiratory disease—rises correspondingly. 61 Fed. Reg. 65,641-65,643 (1996); 97-1440 CA App. (PM App.) 1375-1778, 1801-1845.[4] In addition to similar epidemiological evidence linking ozone to increased hospital admissions in real populations, the ozone record contains numerous clinical studies that demonstrate ozone's deleterious effects on the human respiratory system. 61 Fed. Reg. at 65,719-65,720. In those studies, researchers measured respiratory effects in human volunteers exposed to ozone under controlled laboratory conditions. 97-1441 CA App. (Ozone App.) 1461-1462.

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[4] Indeed, the court of appeals considered and rejected ATA's assertion (see ATA Br. 13) that EPA should not have revised the PM standard because of uncertainty as to the biological mechanism by which PM may cause the health effects shown in more than 60 epidemiological studies. Pet. App. 55a-56a. The court found that the record "amply justifie[d] establishment of new fine particle standards." *Id.* at 56a. No party sought review of this portion of the court of appeals' decision.

In providing a thorough and objective explanation of its decisions, EPA did identify areas of scientific uncertainty, on which ATA and Respondent Appalachian Power Company, *et al.* (APC) have focused so singularly in their statements of the case. *E.g.*, ATA Br. 15; APC Br. 13. As EPA explained in response to comments on the PM rule, "uncertainty and controversy on scientific issues are inherent in the statutory scheme, which in effect requires decisions 'at the very "frontiers of scientific knowledge'" where 'disagreement among the experts is inevitable.'" PM App. 266 (quoting *Lead Indus.*, 647 F.2d at 1160); see also 62 Fed. Reg. 38,880-38,881 (1997). Those inherent uncertainties do not transform the observed adverse health effects addressed by the revised standards into merely theoretical or hypothetical risks.

2. EPA did not revise the PM and ozone NAAQS simply to change its method for "management of predicted risks addressed by the then-current standards" (APC Br. 14). EPA acted because new scientific evidence revealed that adverse health effects are associated with lower concentrations of PM and ozone than had been indicated by the evidence available in prior NAAQS reviews. Congress has required that EPA periodically review the air quality criteria and NAAQS in light of new scientific knowledge and revise them as appropriate. 42 U.S.C. 7409(d)(1). When the Administrator reviewed and revised the PM and ozone NAAQS, she did so based on "the latest scientific knowledge" of the effects associated with the presence of these two pollutants in the ambient air. 42 U.S.C. 7408(a)(2).

The evidence available in 1997 differed significantly from that available earlier, reflecting refinements in analytical techniques, substantial new research, and new information on the kind and severity of health effects associated with the two pollutants.[5] For example, when EPA promulgated the

[5] The Administrator noted that the science underlying the 1997 decisions was more extensive and of higher quality than that underlying

PM_{10} standards in 1987, only "a small number" of epidemiological studies were available for determining the concentrations at which PM is likely to affect public health. 52 Fed. Reg. 24,641 (1987). EPA set the 1987 PM_{10} standards at levels that reasonably appeared to provide an adequate margin of safety against the health effects identified in the studies then available. See *NRDC*, 902 F.2d at 971-972 (summarizing basis for 1987 PM standards).

By the time of the most recent review, however, a large body of new evidence on the health effects of the two pollutants was available. More than 60 epidemiological studies showed that PM concentrations below the level of the 1987 standards are the likely cause of premature death and other serious adverse health effects. See 99-1257 Pet. Br. 9-10.[6] Similarly, new research demonstrated that adverse health effects are caused by exposure to ozone at lower concentrations, over longer periods, and at more moderate levels of exertion than had been shown by studies available during previous ozone reviews. See *id.* at 11-12. Accordingly, the Administrator's decision to revise the standards did not reflect merely a different judgment about how to manage the same risks her predecessors had considered.

3. CASAC unambiguously advised the Administrator that the PM and ozone NAAQS should be revised, unanimously recommending that EPA replace the one-hour ozone

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the previous PM and ozone standards, which had been upheld on judicial review. 62 Fed. Reg. at 38,881 n. 53; see *NRDC*, 902 F.2d 962 (1987 PM NAAQS); *American Petroleum Inst.*, 665 F.2d 1176 (1979 ozone NAAQS).

[6] The final chapter of the PM Criteria Document, which the Clean Air Scientific Advisory Committee (CASAC) characterized as the "best ever example of a true integrative summary of the state of knowledge about the health effects of airborne PM" (PM App. 3150), concluded that the available evidence "provide[s] ample reason to be concerned that there are detectable human health effects attributable to PM at levels *below* the current NAAQS." *Id.* at 1870 (emphasis added). See 99-1257 Pet. Br. 4 (describing CASAC's role).

NAAQS with an eight-hour standard (Ozone App. 236-238), and almost unanimously (19 of 21 panel members) recommending that EPA establish $PM_{2.5}$ standards (PM App. 3162). Cf. ATA Br. 6-7, 14-15; APC Br. 12-13. Moreover, CASAC concluded that EPA's Criteria Documents and Staff Papers, which recommended a range of NAAQS levels that encompassed the levels actually chosen, provided "an adequate scientific basis for regulatory decisions." PM App. 3151, 3162; Ozone App. 235, 236. CASAC followed its traditional practice of declining to provide a consensus recommendation on specific levels for the revised NAAQS, but that did not relieve the Administrator of her duty to reach decisions on specific NAAQS levels. Once the Administrator had concluded that the NAAQS required revision, she—unlike CASAC—had to resolve the uncertainties associated with those decisions. See PM App. 265-269.[7]

Similarly, CASAC's observation that no "bright line" distinguished the alternative levels EPA considered for the revised ozone NAAQS did not mean that CASAC disagreed with EPA's decision to revise the ozone NAAQS. CASAC's observation reflects the unexceptional fact that, like other common air pollutants, ozone lacks a demonstrated "threshold," 62 Fed. Reg. at 38,863; *i.e.*, there is no "bright line" below which scientists have observed a cessation of physiological or biological effects. See *American Petroleum Inst.*, 665

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[7] CASAC has typically acknowledged, as it did in those reviews, that final NAAQS decisions require the Administrator to make public health policy judgments as well as determinations of a strictly scientific nature. *E.g.*, PM App. 3164. Since CASAC began advising EPA in the late 1970s, it has generally stopped short of offering consensus recommendations on specific NAAQS levels and has instead advised on the ranges of levels that the science supports. *Id.* at 266. Nevertheless, CASAC panel members may express individual views. For example, the level of protection afforded by the revised PM NAAQS falls toward the mid-portion of the range of protection afforded by the PM standards recommended by those CASAC panel members who chose to express individual views. See *id.* at 265-269.

F.2d at 1185; *Lead Indus.*, 647 F.2d at 1152-1153 & n.43; *NRDC*, 902 F.2d at 969; see *Casarett & Doull's Toxicology: The Basic Science of Poisons* 19, 79-80 (5th ed. 1996). The evidence showed a continuum of risk within the range considered, with statistically significant decreases in risk and corresponding increases in public health protection for successively more stringent eight-hour ozone standards, 62 Fed. Reg. at 38,864. CASAC clearly understood that observed phenomenon. Ozone App. 297-298; 62 Fed. Reg. at 38,863.[8]

4. EPA and CASAC agreed that additional research into the health effects of PM pollution is warranted, but that conclusion did not affect the timetable for implementation of the revised PM standards. Cf. APC Br. 13. Instead, EPA recognized that, for practical reasons, it would take at least five years to begin implementation. 62 Fed. Reg. at 38,427-38,428. Prior to implementation, a nationwide network of $PM_{2.5}$ monitors has to be installed. *Id.* at 38,427. In addition, because the $PM_{2.5}$ NAAQS are based on an average of concentrations over three years, a prolonged monitoring effort is necessary before the States can begin to propose designations of areas as attainment or nonattainment for the $PM_{2.5}$ NAAQS. *Id.* at 38,427-38,428.[9]

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[8] The scientific community's inability to detect an effects threshold for a pollutant does not mean that medically significant effects are actually known or thought to occur at very low levels. Indeed, there may be little or no evidence supporting that possibility. See, *e.g.*, 62 Fed. Reg. at 38,676; *Casarett & Doull's Toxicology*, *supra*, at 20 (it is "difficult to establish a true 'no effects' threshold for any chemical" and "impossible to scientifically prove the absence of a threshold, as one can never prove a negative").

[9] Implementation of the revised ozone standard has been delayed due to uncertainty arising from the court of appeals' ruling on EPA's authority to implement the standard, which is under review by this Court in No. 99-1257. EPA is also in the process of responding to the court of appeals' remand of the ozone standard for consideration of alleged potential "beneficial" effects associated with the presence of ground-level ozone in the ambient air. Pet. App. 44a-49a. That aspect of the remand, which

III. Proceedings Below

The court of appeals' decision reaffirms the long-settled principle that, "in setting NAAQS under § 109(b) of the Clean Air Act, the EPA is not permitted to consider the cost of implementing those standards." Pet. App. 19a. The court of appeals has consistently held that EPA must set NAAQS based on the "health effects relating to pollutants in the air" and not on alleged costs or any other effects that may result from implementation of the NAAQS. *E.g.*, *NRDC*, 902 F.2d at 973 (EPA may not consider alleged health effects of unemployment petitioners predicted would flow from implementation of 1987 PM NAAQS); see *Lead Indus.*, 647 F.2d at 1148; see also pp. 2-3, *supra*.

The court of appeals expressly rejected ATA's argument that it should reconsider its decision in *Lead Industries* because that case was decided prior to *Chevron U.S.A. Inc.* v. *NRDC*, 467 U.S. 837 (1984). The court explained (Pet. App. 19a-20a):

> The *Lead Industries* decision was made in *Chevron* step one terms, * * * as the post-*Chevron* progeny of *Lead Industries* have made clear. See *NRDC*, 902 F.2d at 973 ("Consideration of costs . . . would be flatly inconsistent with the statute, legislative history and case law on this point"); *NRDC* v. *EPA*, 824 F.2d 1146, 1158-59 (D.C. Cir. 1987) (in banc) ("*Vinyl Chloride*") ("[S]tatute on its face does not allow consideration of technological or economic feasibility. . . . Congress considered the alternatives and chose to close down sources or even industries rather than to allow risks to health.").

The court of appeals also rejected the argument that, even if, in initially setting NAAQS, EPA cannot consider costs

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EPA has not challenged, has nothing to do with the question posed by ATA's cross-petition, despite ATA's suggestions to the contrary. See ATA Br. 8-9.

and other effects of implementation, it may do so when revising NAAQS. Pet. App. 20a. Finally, the court rejected the argument that Congress's direction that CASAC advise EPA on, among other things, "any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance" of NAAQS, CAA § 109(d)(2)(C)(iv), 42 U.S.C. 7409(d)(2)(C)(iv), signals that EPA should consider those factors in revising NAAQS. Pet. App. 21a. Instead, the court of appeals held that the Act directs CASAC to provide that advice in light of EPA's separate duty to inform the States on control strategies. *Ibid.*

SUMMARY OF ARGUMENT

When Congress enacted Section 109 as part of the Clean Air Amendments of 1970, it made a policy choice that EPA should set NAAQS at levels requisite to protect public health and public welfare. The text, structure, and context of Section 109 establish that Congress intended EPA to set and revise NAAQS based on the health and welfare effects posed by the presence of criteria pollutants in the ambient air, and not on the feasibility, costs, or other effects of implementing the NAAQS. Congress decided that consideration of the latter should instead await the process of *implementation*, where those factors will be manifested in concrete terms. The Clean Air Act makes clear that the States and EPA may give appropriate consideration to such factors at various stages of the implementation process.

Section 109(b)(1) directs EPA to set primary NAAQS at levels "requisite" to protect "public health" with "an adequate margin of safety." 42 U.S.C. 7409(b)(1). There is no ambiguity in that command. EPA must set primary NAAQS at levels necessary to ensure that the general population is protected, with a reasonable degree of certainty, against the risk of adverse health effects. Similarly, Section 109(b)(2) directs EPA to set secondary NAAQS at levels "requisite to

protect the public welfare." 42 U.S.C. 7409(b)(2). Congress spoke directly to the issue of what factors EPA may consider when it sets and revises NAAQS. Section 109 states that both primary and secondary NAAQS are to be based on the air quality criteria that EPA develops under Section 108. Section 108, in turn, directs that air quality criteria are to "accurately reflect" the "latest scientific knowledge" on the effects on public health and public welfare that may be associated with "the presence of" a criteria pollutant "in the ambient air." 42 U.S.C. 7408(a)(2).

The evolution of the 1970 Act confirms that Congress did not intend EPA to base NAAQS on consideration of any effects except those posed by the presence of the pollutant in the ambient air. Under the Air Quality Act of 1967, the States were to set regional ambient air quality standards consistent with two pieces of information prepared by the Department of Health, Education, and Welfare: air quality criteria (defined in the same manner as in the 1970 Act) and information regarding pollution control techniques (including information on the technological feasibility and cost-effectiveness of those techniques). When Congress determined in 1970 that uniform national standards were necessary, it retained the requirement that EPA prepare and provide the States with information on pollution control techniques, but specified that NAAQS should be based on the air quality criteria alone.

The court of appeals' and EPA's shared understanding of Congress's intent is consistent with what this Court has described as the "technology-forcing" character of the Clean Air Act. See *Union Elec. Co.* v. *EPA*, 427 U.S. 246, 257 (1976). Congress understood that setting NAAQS on the basis of health and welfare considerations would give industry an incentive, at the implementation stage, to develop innovative and cost-effective control strategies. Congress's actions since 1970 confirm that Congress reserved to itself the responsibility for determining whether to adjust the

NAAQS process in response to industry complaints about the costs, technological challenges, or other burdens of compliance. Since 1970, Congress has repeatedly been confronted with evidence of widespread failure to attain NAAQS by applicable statutory deadlines. Each time, Congress has heard complaints regarding the economic and technological feasibility of attaining the standards. Yet, each time, Congress has addressed the problem by amending the timetable or manner of implementing the NAAQS and not by amending the legal standard that governs EPA's decisions to set and revise them.

ATA and its amici offer no persuasive arguments that Congress intended NAAQS to be based on feasibility or costs of implementation. They are unable to identify any statutory provision directing EPA to consider such factors. To the contrary, ATA relies on statutory provisions that confirm Congress's intent that EPA and the States consider such factors in the NAAQS-implementation process, but not in the NAAQS-setting process. The amici supporting ATA urge this Court to apply cost-benefit principles in setting NAAQS, because, in their view, it would represent a better policy choice. But the wisdom and utility of basing measures to protect public health on cost-benefit analysis are a subject of robust public debate. Congress has chosen not to apply that regulatory approach in setting NAAQS, and any decision to depart from Congress's 30-year course should come from Congress itself and not from the courts.

As we explain in our opening brief in the related case, No. 99-1257, Section 109 of the Clean Air Act does not violate the nondelegation doctrine. Moreover, because the meaning of Section 109 is clear, the canon that the Court should construe ambiguous terms of legislation to avoid reaching constitutional issues has no place in this case. But even if the court of appeals' analysis of the constitutional issue were correct, allowing EPA to consider factors such as economic and technological feasibility when it sets and revises NAAQS

would not resolve or avoid the constitutional issue. ATA's proposed approach would *expand*, rather than narrow, the range of factors EPA must consider. Injecting those factors into EPA's NAAQS decision-making process would not provide the "determinate criterion" that the court of appeals believed was necessary under the nondelegation doctrine.

ARGUMENT

I. CONGRESS HAS DIRECTED EPA TO ESTABLISH NAAQS BASED SOLELY ON CONSIDERATION OF THE EFFECTS ON PUBLIC HEALTH AND PUBLIC WELFARE CAUSED BY THE PRESENCE OF CRITERIA POLLUTANTS IN THE AMBIENT AIR

Congress introduced the NAAQS concept through the Clean Air Amendments of 1970. See *Train* v. *NRDC*, 421 U.S. 60, 63-65 (1975); note 2, *supra*; see also *Union Elec.*, 427 U.S. at 256-257. Since then, EPA has consistently applied Section 109 according to its terms, which require NAAQS to be set at levels "requisite to protect" public health and public welfare. 42 U.S.C. 7409(b). Congress prescribed that NAAQS are to be "based on" the air quality criteria EPA develops under Section 108 and that those criteria are to provide an accurate scientific assessment of the effects on public health and public welfare posed by "the presence of [the] pollutant in the ambient air, in varying quantities." 42 U.S.C. 7408(a)(2). Accordingly, for the last three decades, EPA has understood that, when promulgating NAAQS, it may not consider technological feasibility, costs, or other alleged effects flowing from implementation of the standards. Instead, Congress intended those factors to be considered when the States and EPA decide how NAAQS should be implemented.[10]

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[10] When promulgating the first NAAQS, Administrator Ruckelshaus responded to comments questioning their feasibility by stating that the CAA "does not permit any factors other than health to be taken into

ATA asks this Court to overturn, not only 30 years of agency practice, but 20 years of court of appeals precedent decided in the course of reviewing prior NAAQS. See Pet. App 19a; pp. 2-3, *supra*. That extraordinary action is unwarranted. Congress has unambiguously indicated its intent that NAAQS should be based on scientific evidence regarding the health and welfare effects of ambient pollution, and not on the technological feasibility, costs, or other effects of measures to reduce pollution levels.

A. The Text And Context Of Sections 108 And 109 Require EPA To Set NAAQS Based Solely On The Health And Welfare Effects Of The Criteria Pollutants' Presence In The Ambient Air

The court of appeals and EPA have correctly concluded that Congress "has directly spoken to the precise question at issue" by specifying precisely what factors EPA is to consider when it sets and revises NAAQS. *Chevron*, 467 U.S. at 842. Section 109(b)(1) of the Act directs EPA to set primary NAAQS at a level "requisite to protect the public health" and to set secondary NAAQS at a level "requisite to protect the public welfare." See 42 U.S.C. 7409(b)(1) and (2). The language of the 1970 Act demonstrates that Congress conceived of NAAQS as the means to identify, as the first step of the CAA regulatory program, the ambient air quality standards that are necessary to protect public health and public welfare. Neither Section 108, which specifies the kinds of factual information upon which NAAQS must be based, nor Section 109, which contains the legal test NAAQS

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account in setting the primary standards." 36 Fed. Reg. 8186 (1971). See also, *e.g.*, 62 Fed. Reg. at 38,683-38,688, 38,878-38,883 (detailed response to comments on this issue in the PM and ozone rulemakings); *Hearings on Clean Air Act: Ozone and Particulate Matter Standards Before the Subcomm. on Clean Air, Wetlands, Private Property and Nuclear Safety and the Senate Comm. on Env't and Pub. Works*, 105th Cong., 1st Sess. 276, 282 (1997) (*1997 Hearings*) (testimony of Administrator Browner).

must meet, directs EPA to consider economic or technological feasibility, or similar factors, when promulgating NAAQS. See *Lead Indus.*, 647 F.2d at 1149; *NRDC*, 824 F.2d at 1158.

Section 109's command that NAAQS be set at levels "requisite" to protect health and welfare unambiguously directs that the levels to be set achieve that objective, regardless of cost or other considerations. 42 U.S.C. 7409(b). The plain language of the Act also specifies the factors that EPA may consider. Section 109(b)(1) expressly requires NAAQS to be "based on" the air quality "criteria" that EPA issues under Section 108. 42 U.S.C. 7409(b)(1). Section 108(a)(2), in turn, limits the kind of information to be included in the "criteria" to "the latest scientific knowledge" about effects on public health and public welfare "which may be expected from the presence of such pollutant in the ambient air." 42 U.S.C. 7408(a)(2); see pp. 5-6, *supra*. Section 108(a)(2) makes no mention whatsoever of effects from, or the feasibility of, achieving the NAAQS. Congress expressly directed the focus on health and welfare effects from the *presence* of a criteria pollutant in the air and not on economic or other effects of measures to *remove* that pollutant from the air.[11]

The context in which Sections 108 and 109 appear also confirms that reading. Congress has indicated expressly when and to what extent costs and implementation effects shall be considered in the NAAQS regulatory process. See *Union Elec.*, *supra*. Those factors can play a role in the States' and EPA's decisions on how to *attain* the NAAQS. For example, the States are charged with developing SIPs

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[11] This Court has recognized that, "[w]hen a statute limits a thing to be done in a particular mode, it includes the negative of any other mode." *National R.R. Passenger Corp.* v. *National Ass'n of R.R. Passengers*, 414 U.S. 453, 458 (1974) (quoting *Botany Worsted Mills* v. *United States*, 278 U.S. 282, 289 (1929)).

governing how NAAQS will be implemented within their borders. See CAA § 110, 42 U.S.C. 7410. States may properly consider the technological feasibility and costs of implementation when formulating the SIPs, and EPA may not override those judgments so long as the SIPs will achieve attainment of the NAAQS. See *Union Elec.*, 427 U.S. at 256-269. *Union Electric* recognizes that the CAA does not allow a State to rely on cost and feasibility considerations to excuse failure to meet the CAA's deadlines for attaining the national health-based standards. *Id.* at 266-269. Nevertheless, the Court concluded that "the [Clean Air Amendments of 1970] offer ample opportunity for consideration of claims of technological and economic infeasibility." *Id.* at 268.[12]

In telling contrast to the provisions governing NAAQS promulgation, Congress included provisions in the 1970 Act expressly directing EPA to consider costs and similar factors when making other decisions. See *Union Elec.*, 427 U.S. at 257 n.5 (noting latter sections of 1970 Act).[13] This Court "generally presume[s]" that, "[w]here Congress includes

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[12] Section 110 of the 1970 Act, which was construed in *Union Electric*, has since been revised, but the principles discussed in that case remain fully applicable. See *Virginia* v. *EPA*, 108 F.3d 1397, 1407-1409 (D.C. Cir. 1997); 42 U.S.C. 7410(k).

[13] In Sections 111(a)(1), 202(a)(2) and 231(b) of the 1970 Act, for example, Congress directed that EPA consider economic and technological feasibility in establishing, respectively, standards of performance for new stationary sources of air pollution, standards for new motor vehicles (except those subject to statutory standards under Section 202 (b)), and aircraft emission standards. See 84 Stat. 1683, 1690, 1704. In Section 202(b)(5)(A), it provided for one-year suspensions, on feasibility grounds, of the statutory motor vehicle standards and for interim standards based on the availability and cost of control technology. See *id.* at 1691. Similarly, in Sections 110(e)(1), 110(f), and 112(c)(1) and (2) of the 1970 Act, Congress authorized EPA to grant temporary postponements, on feasibility grounds, of NAAQS attainment dates and applicable control requirements. See *id.* at 1682-1683, 1685-1686.

particular language in one section of a statute but omits it in another section of the same Act, * * * Congress acts intentionally and purposely in the disparate inclusion or exclusion." *Brown* v. *Gardner*, 513 U.S. 115, 120 (1994) (quoting *Russello* v. *United States*, 464 U.S. 16, 23 (1983)). See also *United States* v. *Shabani*, 513 U.S. 10, 14 (1994).

In sum, the plain language of the CAA shows that Congress itself considered the costs and other effects that might flow from implementing the NAAQS and chose to have EPA set standards at levels that will protect public health and public welfare. As in *American Textile Manufacturers Institute* v. *Donovan*, 452 U.S. 490 (1981), "Congress itself defined the basic relationship between costs and benefits, by placing the 'benefit' of [public] health above all other considerations." *Id.* at 509. Neither EPA nor the courts are free to overrule that choice.

B. The Evolution Of The 1970 NAAQS Provisions Confirms That Congress Made A Policy Choice Not To Base NAAQS On Consideration Of The Technological Feasibility Or Cost-Effectiveness Of Pollution Control Measures

The CAA provisions at issue here are an outgrowth of congressional action that began in 1963. See note 2, *supra*. The legislative evolution of those provisions leaves no doubt that Congress meant what the plain language says.

Congress introduced the concept of air quality criteria in the Clean Air Act of 1963, Pub. L. No. 88-206, 77 Stat. 392, which expanded a federally funded program of air pollution research. Section 3(c)(2) of that Act required the Secretary of HEW to "compile and publish criteria" when he determined that any particular "air pollution agent" was "producing effects harmful to the health or welfare of persons." 77 Stat. 395. The 1963 Act defined air quality criteria much as the term is defined today: the criteria were to "reflec[t] accurately the latest scientific knowledge useful

in indicating the kind and extent of such effects which may be expected from the presence of such air pollution agent (or combination of agents) in the air in varying quantities." *Ibid.* Accord, S. Rep. No. 638, 88th Cong., 1st Sess. 7 (1963).

The Air Quality Act of 1967, Pub. L. No. 90-148, 81 Stat. 485, retained the requirement that the Secretary of HEW develop air quality criteria. § 107, 81 Stat. 490-491. But the Act also introduced into federal law the concept of air quality standards. Those standards, however, differed from NAAQS in two respects. First, Congress envisioned that the *States* would develop those standards, with federal assistance, and apply them on a *regional* basis within each State's borders. Second, Congress encouraged the States to adopt regional ambient air quality standards "consistent with" both (a) the air quality criteria *and* (b) information on pollution control techniques. § 108(c), 81 Stat. 492-494.

The 1967 Act preserved the 1963 Act's conception of air quality criteria, providing that they should "accurately reflect the latest scientific knowledge" on the health and welfare effects "which may be expected from the presence of an air pollution agent, or combination of agents in the ambient air, in varying quantities." § 107(b)(2), 81 Stat. 491.[14] The 1967 Act went beyond the 1963 Act, however, by

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[14] The 1967 Act's definition of air quality criteria was thus virtually identical to the definition carried forward into the 1970 Act. Section 107(b)(3) of the 1967 Act provided that the criteria "shall include" the same information that is required today under Section 108(a)(2)(A) to (C). See 42 U.S.C. 7408(a)(2)(A)-(C). See pp. 5-6, *supra*. The criteria were to set forth "an honest appraisal of the available knowledge relating to the health and welfare hazards of air pollution," not influenced by economic and technical considerations:

> [Air quality criteria] define the health and welfare considerations that must be taken into account in the development of standards and regulations. *Economic and technical considerations have a place in the pattern of control activity but not in the development of criteria.*

H.R. Rep. No. 728, 90th Cong., 1st Sess. 16 (1967) (emphasis added); accord S. Rep. No. 403, 90th Cong., 1st Sess. 26-27 (1967).

directing the Secretary of HEW to provide the States with a separate body of information on recommended pollution control techniques, including information on the "economic feasibility" and "cost-effectiveness" of the control techniques. § 107(c), 81 Stat. 491; see H.R. Rep. No. 728, 90th Cong., 1st Sess. 9-13 (1967).

The 1967 Act directed the Secretary to provide information on both air quality criteria and control techniques in order to create incentives for States to develop their own air quality standards that were "at a minimum adequate for the protection of public health and which can be achieved through the application of feasible control techniques." H.R. Rep. No. 728, *supra*, at 18; see also S. Rep. No. 403, 90th Cong., 1st Sess. 26, 28 (1967) (standards would be "influenced not only by a concern for the protection of health or welfare, but also by economic, social, and technological considerations"). Congress accordingly provided that those standards would "be the air quality standards applicable to such State" if the Secretary of HEW determined that the State standards were "consistent with the air quality criteria *and* recommended control techniques issued pursuant to section 107." § 108(c), 81 Stat. 492 (emphasis added).

Three years later, Congress determined that the "response of the States * * * was disappointing," and it enacted the 1970 Clean Air Amendments to "sharply increase[] federal authority." *Train*, 421 U.S. at 64-65. Congress directed EPA to develop nationally uniform federal standards—the NAAQS—and it deliberately narrowed the basis for setting the standards. Congress retained the distinction between air quality criteria and information on pollution control techniques that it had made in the 1967 Act. See 42 U.S.C. 7408(a)(2) (defining air quality criteria); 42 U.S.C. 7408(b) (requiring issuance of information on air pollution control techniques). Congress specified, however, that the NAAQS would be "based on" the "criteria" alone. 42 U.S.C. 7409(b)(1) and (2). Congress consciously provided for consid-

eration of the feasibility and effects of implementing the standards during later stages in the regulatory process. See pp. 20-21, *supra*. Those changes clearly reflected a deliberate legislative decision to narrow the basis on which EPA, as HEW's successor, would establish the national ambient air quality standards.[15]

Viewed in historical context, Congress's intent is thus clear. Since 1963, Congress has conceived of air quality criteria as scientific information on the effects on public health and public welfare posed by the presence of a pollutant in the ambient air. In 1967, Congress experimented with a federal program in which States would set regional air quality standards based on air quality criteria and information regarding the economic and technological feasibility of measures to reduce pollution. In 1970, Congress concluded that the experiment was a failure and replaced it with a program in which EPA would set national air quality standards based on air quality criteria alone, see *Train*, 421 U.S. at 63-65, while preserving the ability of EPA

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[15] In hearings that preceded the 1970 Act, the HEW official responsible for implementation of the 1967 Act testified that the intent of the 1967 Act was to achieve regional air quality standards that were sufficient to protect health, but that the regional standards that had been adopted in fact "reflect[ed] the desired socio-economic status of those particular regions." *Hearings on Air Pollution Before the Subcomm. on Air and Water Pollution of the Senate Comm. on Pub. Works*, 91st Cong., 2d Sess. Pt. 4, at 1488, 1489 (1970), (*Air Pollution Hearings*) *reprinted in* 2 Staff of Senate Comm. on Pub. Works, 93d Cong., 2d Sess., *A Legislative History of the Clean Air Amendments of 1970* at 1183-1184 (Comm. Print 1974) (hereinafter 1970 Leg. Hist.). He therefore advocated national standards "to be sure * * * throughout the Nation, that no area can be any worse than a level of air quality that will be protective of health." *Id.* at 1184. Congress adopted that approach. Senator Muskie, the primary architect of the Clean Air Amendments of 1970, explained that changes in the law were necessary precisely because experience under the 1967 Act had revealed that economic and technological considerations had been used "to compromise the public health." See 116 Cong. Rec. 32,901 (1970) (1 1970 Leg. Hist. 226-227).

and the States to consider costs and feasibility in the implementation stage of the regulatory process, where specific emission limitations and control requirements are imposed, see *Union Elec.*, 427 U.S. at 266-269.

C. Congress's Direction That EPA Set NAAQS Based Solely On Health And Welfare Effects Is Consistent With The Clean Air Act's "Technology-Forcing" Objectives

As this Court has recognized, Congress's decision to set NAAQS at levels "requisite" to protect public health and public welfare—and to postpone questions of feasibility to the implementation stage—rests on a deliberate policy judgment that the NAAQS would have a "technology-forcing character." *Union Elec.*, 427 U.S. at 257; *Train*, 421 U.S. at 91. Congress knew that setting the NAAQS based on health and welfare considerations could, at the implementation stage, "force regulated sources to develop pollution control devices that might at the time appear to be economically or technologically infeasible." *Union Elec.*, 427 U.S. at 257. It also knew that technology forcing "necessarily entails certain risks." *Id.* at 269. "Congress considered those risks in passing the 1970 Amendments and decided that the dangers posed by uncontrolled air pollution made them worth taking." *Ibid.*[16]

The Court's understanding of the CAA's "technology-forcing character" is well founded. See *NRDC*, 824 F.2d at 1158; *Lead Indus.*, 647 F.2d at 1149. For example, the Senate Report accompanying the 1970 Amendments recog-

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[16] Since 1970, industry has largely met the challenge of technological innovation with the result that, historically, EPA has overestimated, at the time of promulgation, the cost of attaining NAAQS. PM App. 3471-3473; see also E. Goodstein & H. Hodges, *Polluted Data*, The American Prospect, No. 35, at 64-69 (Nov.-Dec. 1997) ("In every case we have found where researchers have calculated actual regulatory costs and then compared them to *ex ante* estimates, the estimate exceeded the actual cost by at least 30 percent and generally by more than 100 percent.").

nized that attaining the new standards would "require major investments in new technology and new processes" and that some facilities might even close. S. Rep. No. 1196, 91st Cong., 2d Sess. 2-3 (1970) (1 1970 Leg. Hist. 402-403). Nevertheless, the Report emphasized (*ibid.*):

> In the Committee discussions, considerable concern was expressed regarding the use of the concept of technical feasibility as the basis of ambient air standards. The Committee determined that 1) the health of people is more important than the question of whether the early achievement of ambient air quality standards protective of health is technically feasible; and, 2) the growth of pollution load in many areas, even with application of available technology, would still be deleterious to public health.
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> Therefore, the Committee determined that existing sources of pollutants either should meet the standard of the law or be closed down * * *.

Senator Muskie, the Act's principal sponsor, while acknowledging the need to provide States with information on the economics and feasibility of pollution control technologies, "reemphasize[d] that the concept of this bill as it relates to national ambient air quality standards * * * is not keyed to any condition that the Secretary finds technically and economically feasible." 116 Cong. Rec. 33,099 (1970) (1 1970 Leg. Hist. 342). Instead, "the concept is of public health, and the standards are uncompromiseble in that connection." *Ibid.* See also *id.* at 32,902 (1 1970 Leg. Hist. 227).[17]

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[17] Senator Muskie's understanding was shared by others. For example, Senator Cooper stated:

> [T]he philosophy of the bill abandons the old assumption of requiring the use of only whatever technology is already proven and at hand and of permitting pollution to continue when it is not economically feasible to control it. The bill proceeds instead to set out what is to be

The CAA is "technology forcing" precisely because it dictates that NAAQS shall be based on public health and public welfare considerations and not on supposed "feasibility" constraints. The CAA was designed to stimulate the regulated community to find innovative ways, at the implementation stage, to meet the NAAQS. See 116 Cong. Rec. 32,902 (1970) (1 1970 Leg. Hist. 227) (Sen. Muskie) ("Our responsibility in Congress is to say that the requirements of this bill are what the health of the Nation requires, and to challenge polluters to meet them."). Congress clearly understood that the feasibility, costs, and other effects of implementing measures to attain the NAAQS would be considered only following promulgation of NAAQS, when the States and EPA could consider those factors in deciding how to attain the standards. See 116 Cong. Rec. at 32,918 (1 1970 Leg. Hist. 259-260) (Sen. Cooper).

D. Congress's Actions Since 1970 Confirm That EPA Has Correctly Discerned Congressional Intent

As this Court recognized in *Union Electric*, Congress ensured that considerations of economic and technological feasibility could be factored into the implementation process. 427 U.S. at 266-269. Congress also retained the prerogative of deciding—after the States and affected parties had explored both conventional and innovative control measures under the technology-forcing pressure of the Act—whether and how to alter the statutory scheme if the NAAQS could not realistically be attained within the prescribed time frames. See *Lead Indus.*, 647 F.2d at 1150; Pet. App. 68a-69a

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> achieved, and places its reliance on a great effort to develop technology, to train and put to work the manpower to accomplish that purpose, and it assumes a readiness by industry and the people or the country to pay the costs of pollution control.

116 Cong. Rec. at 32,919 (1 1970 Leg. Hist. 262); see also S. Rep. No. 1196, *supra*, at 9 (1 1970 Leg. Hist. 409) (providing control techniques information to the States should not "lock in existing technology").

(Tatel, J., dissenting). Congress has since exercised that prerogative a number of times. In doing so, it has confirmed that EPA is to set and revise NAAQS based on health and welfare considerations, and not on the effects of implementing the standards.[18]

For example, when Congress amended the Act in 1977, it addressed the difficulty that many areas had experienced with attaining the NAAQS. But Congress did so by changing how the NAAQS are implemented rather than changing how NAAQS are set. See 62 Fed. Reg. at 38,685. Congress was well aware that some areas of the country had been unable to attain some of the NAAQS. See, *e.g.*, H.R. Rep. No. 294, 95th Cong., 1st Sess. 207-217 (1977). Congress was also aware that significant scientific uncertainties are inherent in setting health-based standards. See *id.* at 43-51, 110-112. Furthermore, EPA had emphasized, in a memorandum responding to criticism in oversight hearings, that the original NAAQS were set without considering costs or feasibility,[19] and industrial groups had urged Congress specifically to revise Section 109 to allow consideration of "social and economic factors" in setting NAAQS.[20] In response, Congress made significant changes in the CAA's provisions for

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[18] Indeed, Congress had anticipated that it would conduct continuing oversight over disputes respecting economic and technological feasibility. See, *e.g.*, *Air Pollution Hearings* 1491 (2 1970 Leg. Hist. 1186) (Sen. Baker); 116 Cong. Rec. at 32,905 (1 1970 Leg. Hist. 236) (Sen. Muskie). Congress has been vitally involved in both "setting up the machinery on the one hand and making it work on the other." *Air Pollution Hearings* 1491 (2 1970 Leg. Hist. 1186) (Sen. Baker).

[19] *Hearings on Implementation of the Clean Air Amendments of 1970 Before the Subcomm. on Air and Water Pollution of the Senate Comm. on Pub. Works*, 92d Cong., 2d Sess., Pt. 1, at 311, 312 (1972) (memorandum from Robert L. Baum, Assistant General Counsel, to the Administrator).

[20] See, *e.g.*, *Hearings on the Clean Air Amendments of 1977 Before the Subcomm. on Envtl. Pollution of the Senate Comm. on Env't and Pub. Works*, 95th Cong., 1st Sess., Pt. 2, at 1077, 1085 (1977) (Manufacturing Chemists Ass'n and Dow Chemical Company).

implementing NAAQS, including, for example, an extension of the deadline for attaining the ozone NAAQS. See 91 Stat. 746-747. It also amended Section 109 of the Act to require periodic review and revision of NAAQS and to establish CASAC. See 91 Stat. 691. Congress made no change, however, in the substantive criteria for setting and revising NAAQS. See 62 Fed. Reg. at 38,685 & n.66 (describing the 1977 Amendments).

Congress also exercised its prerogative, several times during the 1980s, to adjust the NAAQS implementation scheme based on considerations of economic and technological feasibility. In 1981, it enacted legislation that gave the steel industry three additional years to meet the NAAQS attainment date of 1982 established by the 1977 Act. See Steel Industry Compliance Extension Act of 1981, Pub. L. No. 97-23, 95 Stat. 139. In 1983, when 218 areas had failed to meet the 1982 attainment date and could thus be sanctioned, Congress enacted a one-year moratorium on sanctions. See Department of Housing and Urban Development–Independent Agencies Appropriation Act, 1983, Pub. L. No. 98-45, 97 Stat. 219. In addition, Congress extended the time for compliance with the carbon monoxide and ozone NAAQS from December 31, 1987, to August 31, 1988. See H.R. J. Res. 395, 100th Cong., 1st Sess. (1987).

In 1990, Congress again made adjustments in the scheme for implementing NAAQS. The Clean Air Act Amendments of 1990 were an ambitious undertaking that almost doubled the size of the CAA in the United States Code. Congress responded, through detailed amendments, to problems that areas of the country continued to encounter in attaining the NAAQS. But Congress once again did so by adjusting the implementation scheme rather than by changing the way that NAAQS are set. See, *e.g.*, CAA §§ 181-192, 42 U.S.C. 7511-7514a (1994 & Supp. IV 1998). The 1990 Amendments are particularly instructive because Congress acted with full

knowledge of how NAAQS had been promulgated over the previous 20 years.

First, Congress had before it the final report of the National Commission on Air Quality (NCAQ), prepared pursuant to Section 323 of the 1977 Act, which charged the NCAQ with examining, among other things, "the economic, technology, and environmental consequences of achieving or not achieving" the Act's goals. Pub. L. No. 95-95, § 323(a), 91 Stat. 785. The NCAQ report discussed the long-standing principle that NAAQS are set based solely on health and welfare considerations and recommended that this principle remain unchanged.[21] Second, Congress indicated its awareness of the court of appeals' decision in *Vinyl Chloride*, which had expressly reaffirmed that EPA may not take into account economic or technological feasibility when setting NAAQS (824 F.2d at 1158-1159), by enacting amendments addressing other aspects of the en banc court's decision. See 104 Stat. 2531 (extensively amending Section 112 of the CAA, 42 U.S.C. 7412, governing the regulation of especially hazardous pollutants). Third, the House and Senate Reports accompanying the 1990 Amendments expressly reflected the understanding that primary NAAQS are to be "set at a level that 'protects the public health with an adequate margin of safety,' *without regard to the economic or technical feasibility of attainment*." H.R. Rep. No. 490, 101st Cong.,

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[21] National Comm'n on Air Quality Report 7, 55, 70 (Mar. 1981). The NCAQ report was the subject of joint hearings in 1981 and an important source for Congress's 1990 deliberations. See, *e.g.*, *Joint Hearing on Reports of the Nat'l Comm'n on Air Quality and the Nat'l Academy of Sciences Before the Senate Comm. on Env't and Pub. Works and the Subcomm. on Health and the Env't of the House Comm. on Energy and Commerce*, 97th Cong., lst Sess. 2-3 (1981) (remarks of Senators Stafford and Chafee); H.R. Rep. No. 490, 101st Cong., 2d Sess., Pt. 1, at 213 (1990).

2d Sess., Pt. 1, at 145 (1990) (emphasis added); accord S. Rep. No. 228, 101st Cong., 1st Sess. 5 (1989).[22]

This Court recently recognized that, when Congress enacts legislation "against the backdrop" of an agency's "consistent and repeated statements" of the agency's authority, the legislation may effectively ratify the agency's position. See *FDA* v. *Brown & Williamson Tobacco Corp.*, 120 S. Ct. 1291, 1313 (2000).[23] This case, however, does not depend on an inference that Congress ratified EPA's interpretation of its authority. Congress has revisited the CAA numerous times over the past 30 years, and it has consistently adhered to its plainly stated original intention—long followed by EPA and the court of appeals—that NAAQS are to be set at levels requisite to protect public health and public welfare, without regard to the economic or technological feasibility of implementing those standards. Congress has itself thus directly and repeatedly *reaffirmed* that it meant what it originally said. See *Chevron*, 467 U.S. at 842-843 ("[i]f the intent of Congress is clear, that is the end of the matter").[24]

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[22] After enactment of the 1977 Clean Air Act Amendments, various parties had continued to urge Congress to amend Section 109 to allow consideration of compliance costs. See, *e.g.*, *Hearings on Clean Air Act Oversight Before the Senate Comm. on Env't and Pub. Works*, 97th Cong., lst Sess., Pt. 3, at 199, 238 (1981); *Hearings on Health Standards for Air Pollutants Before the Subcomm. on Health and the Env't of the House Comm. on Energy and Commerce*, 97th Cong., 1st Sess. 86-87, 214 (1981). Congress again declined to do so.

[23] See also *Bob Jones Univ.* v. *United States*, 461 U.S. 574, 600-602 (1983); *Lorillard* v. *Pons*, 434 U.S. 575, 581 (1978); *NLRB* v. *Bell Aerospace Co.*, 416 U.S. 267, 274 (1974) (according "great weight" to longstanding interpretation "where Congress has re-enacted the statute without pertinent change"); *Red Lion Broad. Co.* v. *FCC*, 395 U.S. 367, 381 (1969).

[24] Even if there were any ambiguity in Congress's pronouncements, EPA's interpretation of the Act would be a reasonable one entitled to deference. See *Chevron*, 467 U.S. at 843-845.

II. ATA IS MISTAKEN IN INSISTING THAT THE CLEAN AIR ACT REQUIRES EPA TO CONSIDER NON-HEALTH FACTORS IN SETTING PRIMARY NAAQS

Notwithstanding the foregoing, ATA and its supporters mistakenly argue that the CAA's "text, structure, and purpose show that EPA must consider non-health factors in setting NAAQS." ATA Br. 32-47. They also argue that EPA should, as a matter of policy, employ cost-benefit analysis in setting NAAQS. See, *e.g.*, ATA Br. 35-36; APC Br. 30-31; AEI-Brookings Inst. Amici Br. This Court's responsibility, however, is to determine Congress's intent. Congress has deliberately rejected the cost-benefit approach that ATA and its supporters espouse, and Congress's determination is dispositive.

A. ATA's Supposed "Trilemma" Does Not Exist

ATA argues at the outset that setting primary NAAQS for non-threshold pollutants based on health considerations creates a "trilemma" in which EPA has only three regulatory options: (1) to set NAAQS at zero; (2) to set NAAQS at a non-zero level that cannot survive review under the arbitrary or capricious standard; or (3) to reject the court of appeals' ruling and employ cost-benefit analysis to set and revise NAAQS. ATA Br. 25, 29-30. ATA's supposed trilemma rests on a false trichotomy.

ATA's first prong presents no real difficulty. EPA has never encountered (and does not expect ever to encounter) the theoretical situation in which complete elimination of a criteria pollutant—including a so-called non-threshold pollutant—would be "requisite" to protect public health or public welfare. 42 U.S.C. 7409(b). ATA overlooks that scientists characterize a pollutant as "non-threshold" if they have not been able to identify a level below which there is no risk that exposure will cause a physiological or biological effect, *however small or fleeting*. See, *e.g.*, 61 Fed. Reg. at

65,727; *Casarett & Doull's Toxicology*, *supra*, at 19 (describing a "threshold" as "[a] dose below which the probability of an individual responding is zero"). Characterizing a pollutant as "non-threshold" does not mean that any group of persons, including sensitive persons, will actually suffer adverse health effects if exposed to a non-zero concentration of that pollutant. See, *e.g.*, 61 Fed. Reg. at 65,721-65,723; see also *Casarett's & Doull's Toxicology*, *supra*, at 80 (distinguishing between, *e.g.*, the "no observed effect level" and the "no observed adverse effect level"). Accordingly, EPA's characterization of a pollutant as "non-threshold" does not require EPA to set the NAAQS for that pollutant at zero.

ATA's second prong also presents no real problem. The CAA requires EPA to set primary NAAQS at levels that protect against "adverse" health effects—not every physiological effect that can be detected—and it requires EPA to protect the health of sensitive population groups rather than that of every sensitive individual. 42 U.S.C. 7409(b)(1); S. Rep. No. 1196, *supra*, at 10 (1 1970 Leg. Hist. 410). Moreover, EPA has consistently adhered to the principle that NAAQS must provide "a *reasonable degree of protection* * * * against hazards which research has not yet identified." *Ibid.* (emphasis added). See *Lead Indus.*, 647 F.2d at 1150. EPA therefore sets primary NAAQS at levels that provide protection from medically significant risks and *not* at levels that protect against any and all risks, or any and all effects. See, *e.g.*, *id.* at 1144, 1155 n.51.[25] ATA is accordingly mistaken in suggesting (ATA Br. 25, 29-30) that setting a non-zero NAAQS for a non-threshold pollutant is necessarily arbitrary and capricious. Indeed, EPA has

[25] ATA is wrong in contending (ATA Br. 30) that the court of appeals' decision in *Lead Industries* bars EPA from engaging in a "systematic weighing of pros and cons" when promulgating primary NAAQS. That decision recognized that EPA must weigh factors that are relevant in deciding what level of protection is "requisite" to protect public health and public welfare. See 647 F.2d at 1146-1147.

properly established non-zero NAAQS for pollutants that are or may be non-threshold pollutants, and the court of appeals, applying the familiar arbitrary or capricious standard, has repeatedly rejected judicial challenges to those NAAQS.[26]

The only truly problematic option is the third prong of ATA's supposed trilemma. ATA's suggestion that EPA should ignore *Lead Industries* and set NAAQS on the basis of cost-benefit analysis (ATA Br. 30, 32) would require EPA to ignore 30 years of agency practice, 20 years of court of appeals precedent, and—most importantly—Congress's clearly stated contrary intent. See A. Scalia, *Responsibilities of Regulatory Agencies Under Environmental Laws*, 24 Hous. L. Rev. 97, 102 (1987) (noting that "primary [NAAQS] are to be established not in light of what is 'feasible' or 'reasonable' (a formulation that would enable counterbalancing costs to be offset against the benefit of clean air) but rather on the sole basis of what is 'requisite to protect the public health'").

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[26] *NRDC*, 902 F.2d 962 (1987 PM NAAQS); *American Petroleum Inst.*, 665 F.2d 1176 (1979 ozone NAAQS); *Lead Indus.*, 647 F.2d 1130 (lead NAAQS). ATA's assertion that a non-zero NAAQS must be arbitrary (ATA Br. 31) also misconceives the arbitrary or capricious standard of judicial review. Under that standard, "a reviewing court may not set aside an agency rule that is rational, based on consideration of the relevant factors, and within the scope of the authority delegated to the agency by the statute." *Motor Vehicle Mfrs. Ass'n* v. *State Farm Mut. Auto. Ins. Co.* 463 U.S. 29, 42 (1983). When a court reviews a NAAQS, it accordingly examines whether EPA has set an air quality standard that is reasonable in light of the pertinent record evidence. See *NRDC*, 902 F.2d at 972; *American Petroleum Inst.*, 665 F.2d at 1187; see also 99-1257 Pet. Br. 26-31. The court of appeals below did not reach the question whether EPA's revised PM and ozone rules satisfy that standard. Pet. App. 4a-5a. But as we have explained in the companion case, EPA's revisions are plainly rational and rest on comprehensive analyses of the evidence respecting the public health and public welfare effects of PM and ozone. See 99-1257 Pet. Br. 8-15, 31-34 (describing EPA's PM and ozone rulemakings.

B. The Clean Air Act's Express Language Refutes ATA's View Of EPA's Obligations In Promulgating NAAQS

ATA and its supporters argue that the CAA requires EPA to consider "non-health factors," including "compliance costs," in promulgating NAAQS. See, *e.g.*, ATA Br. 33, 34; APC Br. 32. The statutory language on which they rely, however, does not support their contentions. Indeed, as we show below, their arguments depend heavily on extrapolating from isolated phrases, giving words unnatural definitions, and overlooking context. That approach is fundamentally unsound: statutes should not "be read as a series of unrelated and isolated provisions." *Gustafson* v. *Alloyd Co.*, 513 U.S. 561, 570 (1995). "Statutory construction is not an exercise in picking apart a complex statute and piecing the parts back together in a manner to effect a particular end." *Michigan* v. *EPA*, 213 F.3d 663, 673 (D.C. Cir. 2000).

1. *Section 109(b)(1): The term "public health."* ATA contends that EPA must take compliance costs into account when setting primary NAAQS at a level "requisite to protect the public health" (CAA § 109(b)(1), 42 U.S.C. 7409(b)(1)) because the term "public health" "has long connoted a sensitivity to comparative costs and benefits." ATA Br. 36; see also APC Br. 26; Ohio Br. 12. ATA derives that conclusion by extrapolating from a definition of the *vocation* of "public health" that appeared in a 1951 book entitled "The Cost of Sickness and the Price of Health." ATA Br. 34. That book defined "public health" as "the science and the art of preventing disease, prolonging life, and promoting physical health and efficiency" through various means. See *id.* at 34-36; APC Br. 26 n.57. A definition of "public health" drawn from the vocational context, however, is inapt in the context presented here. Congress surely did not intend that NAAQS would be set at a level "requisite to protect [the science and art of preventing disease]" (42 U.S.C. 7409(b)(1)). See, *e.g.*, *Textron Lycoming Reciprocating Engine Div.* v.

Automobile Workers, 523 U.S. 653, 657 (1998)("the meaning of a word cannot be determined in isolation, but must be drawn from the context in which it is used").[27]

The phrase "public health" should be given its ordinary or natural dictionary meaning in light of the context in which it is used. See, *e.g.*, *Walters* v. *Metropolitan Educ. Enters., Inc.*, 519 U.S. 202, 207 (1997). Viewed in that light, Section 109(b)(2) clearly directs that EPA must set NAAQS at levels requisite to protect the general population, or identifiable groups within communities, from medically significant effects.[28] Nothing in the language of Section 109(b)(1) directs—or even allows—EPA to set NAAQS at levels inadequate to protect the public from adverse medical effects because of the costs of compliance or other effects of implementation. See Scalia, *supra*, 24 Hous. L. Rev. at 102. See, *e.g.*, *Bates* v. *United States*, 522 U.S. 23, 29 (1997) ("[w]e

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[27] ATA's reference to the vocation of public health is pertinent in this limited sense: Numerous public health professional associations commented favorably on EPA's proposed health-based PM and ozone NAAQS revisions. For example, the American Public Health Association (APHA), the oldest and largest such association, endorsed "the process by which the standards were developed" as "public health practice at its best—good science, good judgment, and active public participation." Letter from M. Akhter, M.D., M.P.H.., Executive Director, APHA, to C. Browner, Administrator, EPA, Docket IV-G-1826, at 1 (June 27, 1997).

[28] The word "public," in the context presented here, means "of, relating to, or affecting the people as an organized community." *Webster's Third New International Dictionary* 1836 (1976). Congress used that word to make clear that NAAQS protect the "health" of the general population, or of population groups, rather than of any specific individual. The word "health," in the context presented here, means "the state of being sound in body or mind." *Id.* at 1043. Congress used that term to denote the absence of medically significant adverse reactions to pollution exposure, in contrast to inconsequential physiological responses that would not impair the "soundness" of body or mind. Consistent with those definitions, the phrase "public health" means the "health of the community at large." *Black's Law Dictionary* 724 (7th ed. 1999).

ordinarily resist reading words or elements into a statute that do not appear on its face").

2. *Section 109(b)(2): The term "public welfare."* ATA also argues that the CAA's references to protecting "public welfare" must include protecting industry from "compliance costs." ATA Br. 37-39. Section 109(b)(2) expressly directs EPA, however, to set secondary NAAQS for criteria pollutants at a level "requisite to protect the public welfare from any known or anticipated adverse effects *associated with the presence of such air pollutant in the ambient air*." 42 U.S.C. 7409(b)(2) (emphasis added). Congress plainly indicated that the public welfare effects of concern are those posed by exposure to air pollutants rather than the effects of measures to implement the NAAQS.[29]

3. *Section 108(a)(2): The contents of air quality criteria.* Similarly, ATA and others contend that, in prescribing the content of air quality criteria in Section 108(a)(2), Congress did not preclude other types of information. *E.g.*, ATA Br. 38-40; Ohio Br. 11. Section 108(a)(2) specifies, however, that air quality criteria shall provide information on "all identifiable effects on public health or welfare *which may be*

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[29] The CAA's definition of "effects on welfare" further reinforces that conclusion. Section 302(h) states that reference to "effects on welfare" includes, but is not limited to, "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, *whether caused by transformation, conversion, or combination with other air pollution*." 42 U.S.C. 7602(h) (emphasis added). Although that definition includes "effects on economic values," the context plainly shows that the "effects" of concern are those caused by the pollution itself. See *Lead Indus.*, 647 F.2d at 1148 n.36 (definition of "welfare" does not include the cost of compliance with NAAQS; it "only refers to the economic costs of pollution"); see generally *Babbitt* v. *Sweet Home Chapter of Communities*, 515 U.S. 687, 702 (1995) ("a word 'gathers meaning from the words around it' "); *Jarecki* v. *G.D. Searle & Co.*, 367 U.S. 303, 307 (1961) (the canon of *noscitur a sociis* is applied to avoid giving "unintended breadth to the Acts of Congress").

expected from the presence of such pollutant in the ambient air." 42 U.S.C. 7408(a)(2) (emphasis added). Congress plainly indicated in Section 108(a)(2), that the effects of concern are those posed by the presence of the pollutant in the ambient air rather than compliance costs and other effects that arise from implementing the NAAQS.[30]

4. *Section 108(b)(1): Dissemination of pollution control information to States.* ATA and others contend that Section 108(b)(1)'s direction that EPA provide States with information on air pollution control techniques, 42 U.S.C. 7408(b)(1), indicates that Congress intended EPA to consider those matters in promulgating NAAQS. ATA Br. 40; APC Br. 38-39. But, as we have explained, Congress had directed HEW to provide the States with pollution control information under the 1967 Act, which called on States to develop regional air quality standards. See pp. 22-23, *supra*. Congress directed EPA to continue to provide States with that information under the 1970 Act, but expressly separated it from the newly created NAAQS promulgation process. Congress did so precisely because it decided that NAAQS should be health-based standards. See pp. 23-24, *supra*. Congress has nevertheless continued to ensure that

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[30] ATA and Ohio emphasize the last sentence of Section 108(a)(2), which specifies air quality criteria shall include, "to the extent practicable," information on (A) variable factors (such as atmospheric conditions) which may alter the effects of a pollutant; (B) pollutants that may interact to produce adverse effects; and (C) any known or anticipated adverse effects on welfare. 42 U.S.C. 7408(a)(2). Those three categories of information, however, are all encompassed within, and limited by, Section 108(a)(2)'s general directive that "air quality criteria" shall provide information on the health and welfare effects posed by "the presence of such pollutant in the ambient air." 42 U.S.C. 7408(a)(2). Section 108(a)(2)'s additional directive to include the three specific types of information "to the extent practicable" does not expand the content of the criteria, but instead further refines it. 42 U.S.C. 7408(a)(2). See pp. 5-6, 21-22 and note 14, *supra*.

States have pollution control information so that the States can be prepared to implement the NAAQS. See *ibid.*

5. *Section 109(d)(2): CASAC's advice to EPA on effects of implementation.* ATA and others also contend that Section 109(d)(2)'s direction that CASAC provide EPA with advice on implementation effects, 42 U.S.C. 7409(d)(2)(C)(iv), indicates that Congress intended EPA to consider those matters in promulgating NAAQS. ATA Br. 41; APC Br. 41; Hatch Amicus Br. 22. The text of Section 109(d)(2), read as a whole, indicates that this is not so. Section 109(d)(2)(B) directs that CASAC periodically review the air quality criteria and NAAQS and make recommendations to the Administrator on new or revised standards or criteria. 42 U.S.C. 7409(d)(2)(B). Section 109(d)(2)(C) further provides that CASAC "shall *also*" advise the Administrator on various matters, including "any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of [NAAQS]." 42 U.S.C. 7409(d)(2)(C) (emphasis added). As the CAA's text indicates, CASAC's advice on implementation effects under Section 109(d)(2)(C) is in addition to, and separate from, any recommendations on criteria and NAAQS that CASAC provides under Section 109(d)(2)(B). See Pet. App. 21a.[31]

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[31] Congress plainly drew a distinction between effects that are relevant for purposes of promulgating a NAAQS—*viz.*, effects associated with "the presence of [a] pollutant in the ambient air" (42 U.S.C. 7408(a)(2))—and effects that are the subject of CASAC's advice-providing role under Section 109(d)(2)(C)—*viz.*, effects "which may result from various strategies for attainment" (42 U.S.C. 7409(d)(2)(C)(iv)). If Congress had not wished to draw that distinction, it would not have employed the distinctively different language. Indeed, the House Report that described the purpose of Section 109(d)(2)(C)(iv) suggests that CASAC's advice under that provision plays a limited role, even in the implementation process. It states that the information is not "to be used as a basis for the Administrator to disapprove any [SIP]," but "may be of interest and assistance to the

6. *Section 109(b)(1): Allowance for an adequate margin of safety.* ATA and its supporters also contend (ATA Br. 47; APC Br. 35-36; Ohio Br. 12-13, 15) that EPA has discretion to consider compliance costs because, when EPA sets primary NAAQS at a level "requisite to protect public health," it must "allow[] an adequate margin of safety." CAA § 109(b)(1), 42 U.S.C. 7409(b)(1). The court of appeals has twice rejected that argument. See *Lead Indus.*, 647 F.2d at 1148-1150; *Vinyl Chloride*, 824 F.2d at 1158-1159. In context, Section 109(b)(1) plainly directs EPA to set primary NAAQS with an "adequate margin of safety" to ensure that those health-based standards will be set at a sufficiently stringent level to achieve Section 109(b)(1)'s objective of protecting public health. See S. Rep. No. 1196, *supra*, at 10 (1 1970 Leg. Hist. 410); 116 Cong. Rec. at 33,099 (1 1970 Leg. Hist. 342) (Sen. Muskie).[32]

7. *Section 110(a)(2): Consideration of costs in the implementation program.* ATA also argues (Br. at 45-47) that EPA's longstanding interpretation of Section 109 is inconsis-

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States and to Congress in fashioning future legislation." H.R. Rep. No. 294, *supra*, at 183.

[32] ATA mistakenly relies on the court of appeals' decision in *Vinyl Chloride*, which ruled that EPA may consider economic and technological feasibility when setting emission standards for especially hazardous pollutants under the 1970 version of Section 112. See pp. 3, 30-31, *supra*. The court concluded that Section 112 permitted EPA first to determine a "safe" level for a hazardous air pollutant—based solely on health factors—and then to consider cost and technological feasibility for the purpose of determining whether additional protection should be afforded by, for example, setting a standard at "the lowest feasible level." 824 F.2d at 1165-1166. The court expressly distinguished, however, the standard for promulgating NAAQS under Section 109. Writing for the en banc court, Judge Bork explained that the language and structure of the CAA showed that "Congress simply did not intend the economics of pollution control to be considered in [Section 109's] scheme of ambient air regulations." *Id.* at 1159. Congress has since amended Section 112, essentially creating a new scheme for setting emission standards for especially hazardous air pollutants. 42 U.S.C. 7412. See pp. 30-31, *supra*.

tent with its interpretation of other provisions of the CAA, where EPA does consider compliance costs in making regulatory decisions. ATA overlooks, however, that those other provisions involve different statutory language, subject matter, and policy choices. The cases ATA cites simply demonstrate that EPA may have discretion to consider costs in situations—unlike the situation posed by NAAQS promulgation—where Congress has not expressly prescribed what factors it should consider in making regulatory determinations.

For example, in *Michigan* v. *EPA*, *supra*, various States challenged EPA's determination, under Section 110(a)(2)(D), that certain "upwind" States were making a "significant contribution" to NAAQS-nonattainment problems in "downwind" States. 42 U.S.C. 7410(a)(2)(D). EPA identified 23 States that were "significant" contributors, and it required those States to reduce emissions to a level that could be achieved by employing "highly cost-effective controls." See 213 F.3d at 675. The court of appeals rejected various challenges to EPA's consideration of cost effectiveness. *Id.* at 675-678. The court concluded that the term "significant" was inherently ambiguous, that it had been construed in other contexts to include consideration of costs, and there was not—as under Section 109—"clear congressional intent to preclude consideration of costs." *Id.* at 678 (quoting *Vinyl Chloride*).[33]

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[33] The other cases on which ATA relies (Br. 45-47) also involved provisions of the CAA that do not specify what factors EPA is to consider and that present no evidence of congressional intent to exclude costs. See *George E. Warren Corp.* v. *EPA*, 159 F.3d 616, 624 (D.C. Cir. 1998) (consideration of cost "appears to be congruent with both the congressional purpose not to disrupt the market for imported gasoline and the Supreme Court's instruction to avoid an interpretation that would put a law of the United States into conflict with a treaty obligation of the United States"); *NRDC* v. *EPA*, 937 F.2d 641, 645-646 (D.C. Cir. 1991) (text of provisions governing "prevention of significant deterioration" supports inference

8. *Section 109(d)(1): Revision of NAAQS.* APC, but not ATA, contends that Section 109(d)(1)'s directive that EPA revise the NAAQS "as may be appropriate" (42 U.S.C. 7409(d)(1)) expands the range of factors that EPA may consider when it revises NAAQS. APC Br. 39-40. The court of appeals correctly rejected the argument. Pet. App. 20a-21a. As that court noted, Section 109(d)(1) directs EPA to "make such revisions in such criteria and standards * * * as may be appropriate in accordance with section 7408 of this title and subsection (b) of this section." 42 U.S.C. 7409(d)(1). Accordingly, the legal standard governing a decision to revise a NAAQS, and the factors that bear on the decision, are exactly the same as those for an initial decision to set a NAAQS.[34]

9. *Section 101(b)(1): Goals of the CAA.* ATA and others suggest that one of the CAA's general goals set out in Section 101(b) – to promote "the productive capacity" of the Nation's population, 42 U.S.C. 7401(b)(1)—should take precedence over the CAA's specific language in Sections 108 and 109 prescribing how NAAQS should be promulgated. *E.g.*, ATA Br. 42-43; APC Br. 23, 29-30. They essentially contend that Section 101(b)(1) should be read to impose a requirement to consider economic factors in all decision-making under the Act. Section 101(b)(1) simply states, however, that one of the purposes of the Act is "to protect and enhance the quality of the Nation's air resources *so as* to promote the public health and welfare and the productive capacity of its population." 42 U.S.C. 7401(b)(1) (emphasis

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that Congress meant to "balance the values of clean air, on the one hand, and economic development and productivity, on the other.").

[34] APC's argument that EPA faces a higher burden to revise a standard than to set an initial standard is also wrong. APC mistakenly relies upon inapposite case law regarding an agency's obligation to explain a change in policy. See APC Br. 42. When EPA revises a NAAQS, it is not changing policy, but carrying out a specific duty imposed by the CAA to review NAAQS at least once every five years. 42 U.S.C. 7409(d)(1).

added). The provision expresses Congress's belief that improved air quality would enhance the Nation's productive capacity by reducing the harm that air pollution causes.[35] It does not alter the specific statutory directions that Congress set out in Sections 108 and 109 to achieve that goal. Cf. *American Textile Mfrs.*, 452 U.S. at 510 ("When Congress has intended that an agency engage in cost-benefit analysis, it has clearly indicated such intent on the face of the statute.").

10. *The UMRA and the RFA.* There is no merit to the suggestion (ATA Br. 48; Amici Hatch Br. 25) that two later-enacted statutes, the Unfunded Mandates Reform Act, 2 U.S.C. 1501 *et seq.* (UMRA), and the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.* (RFA), require EPA to consider costs in promulgating NAAQS. Those Acts encourage agencies to consider the economic effects of agency actions, but each Act also provides that its specific requirements do not apply if those requirements would be inconsistent with the statute under which the agency is taking action. 2 U.S.C. 1535(b)(2) (Supp. IV 1998); 5 U.S.C. 604(a)(5) (1994 & Supp. IV 1998). There is a "clear inconsistency" (see Hatch Br. 25) between the requirements of the UMRA and the RFA and the requirement of Section 109 that NAAQS be based on the effects of ambient pollution on health and welfare. The UMRA and the RFA are pertinent in only one sense: They show that Congress is well aware that there are regulatory statutes that preclude consideration of costs. See generally Pet. App. 25a-31a.

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[35] See, *e.g.*, 116 Cong. Rec. at 42,522 (1 1970 Leg. Hist. 118) (remarks of Rep. Anderson) ("[a]ir pollution costs the United States over $12 billion annually," through ruined crops, aging of buildings and clothing, deterioration of steel in bridges, rails and ships); 116 Cong. Rec. at 32,901 (1 1970 Leg. Hist. 224) (remarks of Sen. Muskie) ("The costs of air pollution can be * * * measured in the billions of dollars of property losses.").

C. The Administrator Did Not Base Her NAAQS Decisions On Consideration Of Compliance Costs

After arguing that EPA has improperly construed Sections 108 and 109 to preclude consideration of non-health effects (ATA Br. 32-43), ATA reverses course and contends that EPA "may actually be considering non-health factors in setting NAAQS" (ATA Br. 43-45). That contention is without merit. Throughout the rulemaking proceedings, EPA was confronted with comments urging it to consider the technological feasibility, costs, and other alleged effects of implementing any new PM or ozone standards. EPA responded by explaining that the CAA requires that NAAQS be based on consideration of the health and welfare effects posed by "the presence of the pollutant in the air," rather than on consideration of the feasibility or effects of implementing the standards. See 62 Fed. Reg. at 38,683-38,689; *id.* at 38,878-38,883.[36] And while it is a matter of no relevance to this case, there is no evidence to support ATA's claim (ATA Br. 43-44) that previous EPA Administrators secretly based their NAAQS decisions on impermissible factors.[37]

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[36] Pursuant to executive order, EPA prepared a Regulatory Impact Analysis (RIA) for the two rules at issue here, as it must for any significant regulatory action. 62 Fed. Reg. at 38,702. EPA explained, however, that the RIA was for informational and implementation planning purposes only and could not play a part in the Administrator's decision on standard-setting. See *id.* at 38,703 (PM); *id.* at 38,887 (ozone); see also PM App. 3461-3462. An RIA is normally not a part of the record for judicial review of a NAAQS decision. Compare 42 U.S.C. 7607(d)(7)(A) with 42 U.S.C. 7607(d)(4)(B)(ii). EPA nevertheless elected to include the RIA in these rulemakings because it was potentially relevant to judicial review of issues arising under the RFA, 5 U.S.C. 601 *et seq.* See 5 U.S.C. 611 (1994 & Supp. IV 1998) (judicial review provisions). The court of appeals rejected the RFA challenges, Pet. App. 26a-31a, and they are not before this Court.

[37] ATA claims (ATA Br. 43-44), on the basis of a highly speculative reconstruction of the 1979 ozone rulemaking, that Administrator Douglas

D. Congress Has Resolved The Public Policy Question Of Whether Cost-Benefit Analysis Should Be Used In Setting NAAQS

ATA and its supporters argue that EPA should set NAAQS through cost-benefit analysis, balancing the benefits of clean air against the resulting economic costs of achieving that goal, because that technique, in their view, would improve EPA's decisionmaking process. *E.g.*, ATA Br. 30, 35-36; APC Br. 30-31. The question here, however, is whether Congress sanctioned that approach. The CAA's specific provisions show that Congress directed EPA to set NAAQS based on public health and public welfare objectives rather than on the cost-benefit methodology that ATA would prefer. Congress was entitled to make that choice.[38]

Congress has had sound reasons for adhering to that decision. Quantifying the nationwide environmental benefits

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Costle "admitted" that he considered costs in reaching his 1979 decision to revise the ozone NAAQS. See M. Landy, M. Roberts & S. Thomas, *The Environmental Protection Agency: Asking the Wrong Questions from Nixon to Clinton* 66-70 (Oxford Univ. Press 1994); see also W. Wagner, *The Science Charade in Toxic Regulation*, 95 Colum. L. Rev. 1613, 1641-1643 (1995) (relying on Landy, *et al.*). That claim is not accurate. Costle understood that the statute required him to reach a decision based solely on the scientific evidence regarding health effects, and he ultimately made his decision on that basis. See Landy, *et al.*, *supra*, at 70-74; see also *American Petroleum Inst.*, 665 F.2d at 1185 (upholding 1979 ozone standard and specifically rejecting the claim that the Administrator should have considered the cost of implementing the standard).

[38] Congress's decision reflects what economists readily acknowledge: cost-benefit analysis can frequently play an important role in environmental regulation, but that methodology does not provide an appropriate basis for making decisions in every regulatory context. See AEI-Brookings Inst. Amici Br. 9-10 (noting that "[a]gencies should not be bound by a strict benefit-cost test," that "[n]ot all impacts of a decision can be quantified or expressed in dollar terms," and that decisionmakers must "give due consideration to factors that defy quantification"). Congress has made the legislative judgment that the methodology is not the appropriate one for EPA to use in setting NAAQS. See note 42, *infra*.

of NAAQS in monetary terms creates a deceptive appearance of certainty, but is fraught with difficulties, such as placing a monetary value on preventing a senior citizen's premature death or a child's asthma attack.[39] Quantifying the costs associated with implementing NAAQS is a no less uncertain undertaking. Because NAAQS are set on a national level, because States have broad latitude in the SIP process to select local pollution control strategies, and because the time period from promulgation to full implementation can span many years and produce unforeseen technological innovation, estimates of implementation costs are inherently—and often extraordinarily—speculative.[40] Indeed, EPA's attempt to estimate the costs and benefits of the ozone and PM NAAQS at issue in this case, for informational purposes only (see note 36, *supra*), has itself become a source of debate.[41] Congress's decision to confine the use of cost-benefit techniques to implementation efforts, which typically involve assessment of near-term

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[39] See, *e.g.*, L. Heinzerling, *Regulatory Costs of Mythic Proportions*, 107 Yale L.J. 1981, 2044, 2065-2068 (1998); T. McGarity, *A Cost-Benefit State*, 50 Admin. L. Rev. 24-25 (1998); S. Shapiro & T. McGarity, *Not So Paradoxical: The Rationale for Technology-Based Regulation*, 1991 Duke L.J. 729, 732; H. Latin, *Good Science, Bad Regulation and Toxic Risk Assessment*, 5 Yale J. on Reg. 89, 92 (1988).

[40] See note 16, *supra*; see also, *e.g.*, W. Harrington, R. Morgenstern & P. Nelson, *On the Accuracy of Regulatory Cost Estimates*, Resources for the Future Discussion Paper 99-18, at 10 (1999); T. McGarity, *supra*, 50 Admin. L. Rev. at 7, 55, 76.

[41] ATA argues (ATA Br. 9-11) that EPA's RIA shows that costs exceed benefits. In fact, the RIA, which did not quantify many "nonmonetizable benefits categories" (ES-3, ES-15 to ES-16), estimated that the benefits of the revised PM standards would far outweigh their costs and that the costs and benefits of the revised ozone standard would be roughly commensurate. See ES-1 to ES-22; 13-2. The RIA necessarily had to rely on highly uncertain data. See ES-3 to ES-5. The fact that the parties do not agree on the conclusions that can be drawn from the economic analysis in this case illustrates the difficulties that ATA's position entails.

requirements for specific control measures on specific industries in specific locations, is entirely understandable.[42]

In any event, it is not for this Court to rescind Congress's legislative judgment on what is quintessentially a matter of public policy. *Central Bank of Denver, N.A.* v. *First Interstate Bank of Denver, N.A.*, 511 U.S. 164, 188 (1994). Congress has made its policy determination, and "it is up to Congress, not this Court, to revise the determination if it so chooses." *United States* v. *Noland*, 517 U.S. 535, 541-542 n. 3 (1996).

III. EXPANDING THE RANGE OF FACTORS THAT EPA MAY CONSIDER IN SETTING NAAQS WOULD NEITHER RESOLVE NOR AVOID THE CONSTITUTIONAL ISSUE PERCEIVED BY THE COURT OF APPEALS

Perhaps ATA will address in its reply brief the question that it has presented in its cross-petition but fails to develop in its opening brief—whether this Court should interpret Section 109 as allowing consideration of "non-health factors" to "avoid confronting constitutional nondelegation issues" (ATA Br. i). Because we will have no opportunity to respond to ATA's reply brief, we address that matter in the first instance.

As we explain in the companion case, No. 99-1257, Section 109 is clearly constitutional under this Court's nondelegation doctrine jurisprudence. See 99-1257 Pet. Br. 22-26. Because

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[42] In effect, Congress has defined the CAA's goals in terms of a public health and welfare objective, while recognizing the validity of the view of economists that "[e]conomic analysis can be useful in designing regulatory strategies that achieve a desired goal at the lowest possible cost." AEI-Brookings Amici Br. 10. EPA's Administrator has made that point in explaining why cost-benefit analysis is not appropriate in setting the NAAQS: "While cost-benefit analysis is a tool that can be helpful in developing strategies to *implement* our nation's air quality standards, we believe it is inappropriate for use to *set* the standards themselves." See *1997 Hearings* 282 (prepared testimony of Administrator Browner).

Congress has provided sufficient guidance "to meet any delegation doctrine attack," this Court has no occasion to give Section 109 a narrowing construction to avoid an alleged "serious question of unconstitutional delegation of legislative power." *Federal Energy Administration* v. *Algonquin SNG, Inc.*, 426 U.S. 548, 559 (1976).[43]

In any event, ATA's proposed construction would not solve the supposed constitutional infirmity under the non-delegation doctrine. To the contrary, it would actually grant EPA broader discretion than Section 109's plain language confers. See Scalia, *supra*, 24 Hous. L. Rev. at 102. Under ATA's suggested approach, EPA would have discretion to set NAAQS—and courts would be required to review them—based on an open-ended inquiry into any conceivable costs or benefits that might result from promulgation of the NAAQS. Contrary to the court of appeals' suppositions, Pet. App. 14a-18a, consideration of costs and other effects of implementation would not provide a "determinate criterion" for EPA in setting NAAQS.[44] Accordingly, while we do not disagree with the court of appeals' and ATA's implication

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[43] The principle that a statute must be construed so as to avoid doubts as to its constitutionality applies only when the statute's meaning is unclear. See, *e.g.*, *Miller* v. *French*, 120 S. Ct. 2246, 2255 (2000). Here, Congress has made unmistakably clear its intent that EPA should base its NAAQS decisions solely on the health and welfare effects posed by the presence of the pollutant in the ambient air. See, *e.g.*, *CFTC* v. *Schor*, 478 U.S. 833, 841 (1986) (the canon of constitutional doubt "does not give a court the prerogative to ignore the legislative will").

[44] Casting the NAAQS decision in cost-benefit terms would not resolve the underlying scientific uncertainties that EPA must face in setting NAAQS. See pp. 9, 11, *supra*. At the same time, it would introduce new uncertainties respecting the quantification of costs and benefits that would result from implementing the NAAQS. See pp. 45-47, *supra*. Economists readily admit that, in cases where information on costs and benefits is uncertain, "benefit-cost analysis cannot be used to prove that the economic benefits of a decision will exceed or fall short of costs." AEI-Brookings Inst. Amici Br. 9.

that Section 109 would not be unconstitutional if construed as ATA proposes, we believe that it follows *a fortiori* that Section 109 is also constitutional as it has been construed and applied throughout its 30-year existence.

In sum, Congress fulfilled its responsibility under the nondelegation doctrine and made the fundamental policy choice. Congress concluded that NAAQS should be set for criteria pollutants on the basis of what is necessary to protect public health and public welfare. Cf. *American Textile Mfrs.*, 452 U.S. at 509. Congress "itself determined that the economic effects of any necessary actions to meet the goals of [the NAAQS program] were acceptable." See NCAQ Report, *supra*, at 273; pp. 25-32, *supra*. It did not authorize EPA to set NAAQS on the basis of the agency's projection of compliance costs. Cf. *American Textile Mfrs.*, 452 U.S. at 545 (Rehnquist, C.J., dissenting) (health-based standards authorize an agency "to set exposure standards without regard to any kind of cost-benefit analysis"). ATA and its supporters can continue to ask Congress to reconsider that policy choice, notwithstanding the substantial benefits that the CAA has provided to the American public. See, *e.g.*, EPA, *The Benefits and Costs of the Clean Air Act, 1970 to 1990* (Oct. 1997). But unless and until Congress elects to change the law that has been in place since 1970, Congress's legislative judgment should be given effect.

CONCLUSION

This Court should affirm the court of appeals' ruling that the Clean Air Act requires EPA to establish NAAQS based solely on consideration of the effects on public health and public welfare caused by the presence of criteria pollutants in the ambient air.

Respectfully submitted.

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APPENDIX

Section 101 of the Clean Air Act provides in relevant part:

§ 7401. Congressional findings and declaration of purpose

* * * * *

(b) Declaration

The purposes of this subchapter are—

(1) to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population.

* * * * *

42 U.S.C. 7401.

Section 108 of the Clean Air Act provides in relevant part:

§ 7408. Air quality criteria and control techniques

(a) Air pollutant list; publication and revision by Administrator; issuance of air quality criteria for air pollutants

(1) For the purpose of establishing national primary and secondary ambient air quality standards, the Administrator shall within 30 days after December 31, 1970, publish, and shall from time to time thereafter revise, a list which includes each air pollutant—

(A) emissions of which, in his 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

(C) for which air quality criteria had not been issued before December 31, 1970 but for which he plans to issue air quality criteria under this section.

(2) The Administrator shall issue air quality criteria for an air pollutant within 12 months after he has included such pollutant in a list under paragraph (1). Air quality criteria for an air pollutant shall 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. The criteria for an air pollutant, to the extent practicable, shall include information on–

(A) those variable factors (including atmospheric conditions) which of themselves or in combination with other factors may alter the effects on public health or welfare of such air pollutant;

(B) the types of air pollutants which, when present in the atmosphere, may interact with such pollutant to produce an adverse effect on public health or welfare; and

(C) any known or anticipated adverse effects on welfare.

(b) Issuance by Administrator of information on air pollution control techniques; standing consulting committees for air pollutants; establishment; membership

(1) Simultaneously with the issuance of criteria under subsection (a) of this section, the Administrator shall, after consultation with appropriate advisory committees and Federal departments and agencies, issue to the States and appropriate air pollution control agencies information on air pollution control techniques, which information shall include data relating to the cost of installation and operation, energy requirements, emission reduction benefits, and environmental impact of the emission control technology. Such information shall include such data as are available on available technology and alternative methods of prevention and control of air pollution. Such information shall also include data on alternative fuels, processes, and operating methods which will result in elimination or significant reduction of emissions.

(2) In order to assist in the development of information on pollution control techniques, the Administrator may establish a standing consulting committee for each air pollutant included in a list published pursuant to subsection (a)(1) of this section, which shall be comprised of technically qualified individuals representative of State and local governments, industry, and the academic community. Each such committee shall submit, as appropriate, to the Administrator information related to that required by paragraph (1).

(c) Review, modification, and reissuance of criteria or information

The Administrator shall from time to time review, and, as appropriate, modify, and reissue any criteria or information on control techniques issued pursuant to this section. * * *

(d) Publication in Federal Register; availability of copies for general public

The issuance of air quality criteria and information on air pollution control techniques shall be announced in the Federal Register and copies shall be made available to the general public.

* * * * *

42 U.S.C. 7408.

Section 109 of the Clean Air Act provides in relevant part:

§ 7409. National primary and secondary ambient air quality standards

(a) Promulgation

(1) The Administrator–

(A) * * * shall publish proposed regulations prescribing a national primary ambient air quality standard and a national secondary ambient air quality standard for each air pollutant for which air quality criteria have been issued prior to such date; and

(B) after a reasonable time for interested persons to submit written comments thereon (but no later than 90 days after the initial publication of such proposed standards) shall by regulation promulgate such pro-

posed national primary and secondary ambient air quality standards with such modifications as he deems appropriate.

* * * * *

(b) Protection of public health and welfare

(1) National primary ambient air quality standards, prescribed under subsection (a) of this section shall be ambient air quality standards the attainment and maintenance of which in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health. Such primary standards may be revised in the same manner as promulgated.

(2) Any national secondary ambient air quality standard prescribed under subsection (a) of this section shall specify a level of air quality the attainment and maintenance of which in the judgment of the Administrator, based on such criteria, is requisite to protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air. Such secondary standards may be revised in the same manner as promulgated.

* * * * *

(d) Review and revision of criteria and standards; independent scientific review committee; appointment; advisory functions

(1) Not later than December 31, 1980, and at five-year intervals thereafter, the Administrator shall complete a thorough review of the criteria published under section 7408 of this title and the national ambient air quality standards promulgated under this section and shall make such revisions in such criteria and standards and promulgate such

new standards as may be appropriate in accordance with section 7408 of this title and subsection (b) of this section. The Administrator may review and revise criteria or promulgate new standards earlier or more frequently than required under this paragraph.

(2)(A) The Administrator shall appoint an independent scientific review committee composed of seven members including at least one member of the National Academy of Sciences, one physician, and one person representing State air pollution control agencies.

(B) Not later than January 1, 1980, and at five-year intervals thereafter, the committee referred to in subparagraph (A) shall complete a review of the criteria published under section 7408 of this title and the national primary and secondary ambient air quality standards promulgated under this section and shall recommend to the Administrator any new national ambient air quality standards and revisions of existing criteria and standards as may be appropriate under section 7408 of this title and subsection (b) of this section.

(C) Such committee shall also * * * (iv) advise the Administrator of any adverse public health, welfare, social, economic, or energy effects which may result from various strategies for attainment and maintenance of such national ambient air quality standards.

42 U.S.C. 7409.

Section 110 of the Clean Air Act provides in relevant part:

§ 7410 State implementation plans for national primary and secondary ambient air quality standards

(a) Adoption of plan by State; submission to Administrator; content of plan; revision; new sources; indirect source review program; supplemental or intermittent control systems

(1) Each State shall, after reasonable notice and public hearings, adopt and submit to the Administrator, within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national primary ambient air quality standard (or any revision thereof) under section 7409 of this title for any air pollutant, a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality control region (or portion thereof) within such State. * * *

(2) Each implementation plan * * * shall—

* * * * *

(D) contain adequate provisions—

(i) prohibiting, consistent with the provisions of this subchapter, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will—

(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with

respect to any such national primary or secondary ambient air quality standard * * *.

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42 U.S.C. 7410.