United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued February 25, 2002 Decided May 24, 2002

No. 99-1348

American Corn Growers Association, Petitioner

v.

Environmental Protection Agency, Respondent

State of Michigan, Department of Environmental Quality, et al., Intervenors

Consolidated with Nos. 99-1349, 99-1350, 99-1351, 99-1352, 99-1357, 99-1358, 99-1359, 01-1111, 01-1112, 01-1113

On Petitions for Review of an Order of the Environmental Protection Agency

Peter Glaser argued the cause for Industry petitioners and intervenors on the BART Issues in Case Nos. 99-1348,

99-1349, 99-1350, 99-1351, 99-1352, 99-1356, 99-1357, 99-1358 and 99-1359. With him on the joint briefs were Paul M. Seby, Henry V. Nickel, F. William Brownell, Michael L. Teague, Kevin L. Fast, David M. Flannery, Kathy G. Beckett, Scott D. Goldman, Harold P. Quinn, Jr., William H. Lewis, Jr., and Michael A. McCord.

Kevin L. Fast argued the cause for Industry petitioners in Case Nos. 01-1111, 01-1112 and 01-1113. With him on the joint briefs were Peter Glaser, Paul M. Seby, Henry V. Nickel, F. William Brownell, and Michael L. Teague.

David S. Baron argued the cause and filed the briefs for petitioner Sierra Club.

Jennifer M. Granholm, Attorney General, State of Michigan, Thomas L. Casey, Solicitor General, and John Fordell Leone, Assistant Attorney General, were on the briefs for intervenor State of Michigan.

Pamela S. Tonglao, Kenneth C. Amaditz, and H. Michael Semler, Attorneys, U.S. Department of Justice, argued the causes for respondents. With them on the brief was M. Lea Anderson, Attorney, U.S. Environmental Protection Agency.

Erick Titrud argued the cause for intervenors State of Maine, State of New Hampshire, State of Vermont, and Tribal and Environmental intervenors. With him on the joint brief were Ann Brewster Weeks, Vickie L. Patton, William G. Grantham, G. Steven Rowe, Attorney General, State of Maine, Philip T. McLaughlin, Attorney General, State of New Hampshire, Maureen D. Smith, Senior Assistant Attorney General, and William H. Sorrell, Attorney General, State of Vermont.

Peter Glaser, Henry V. Nickel, F. William Brownell, Michael L. Teague, Kevin L. Fast, Paul M. Seby, Harold P. Quinn, Jennifer M. Granholm, Attorney General, State of Michigan, John Fordell Leone, Assistant Attorney General, David M. Flannery, Kathy G. Beckett, William H. Lewis, Jr., and Michael A. McCord were on the joint brief for Industry and State intervenors, in support of respondents.

Mark L. Shurtleff, Attorney General, State of Utah, Fred Nelson, Assistant Attorney General, and Susan M. McMichael were on the brief for amici curiae State of Utah and State of New Mexico Environment Department, in support of respondent EPA.

Before: Edwards, Randolph, and Garland, Circuit Judges.

Opinion for the Court filed Per Curiam.

Opinion concurring in part and dissenting in part filed by Circuit Judge Garland.

Per Curiam: In 1999, the Environmental Protection Agency promulgated a final rule to address regional haze. See Regional Haze Regulations, 64 Fed. Reg. 35,714 (July 1, 1999). The Haze Rule calls for states to play the lead role in

designing and implementing regional haze programs to clear the air in national parks and wilderness areas that have been classified as "mandatory class I Federal areas,"[1] such as Yellowstone National Park, Grand Canyon National Park, and Shenandoah National Park. See 40 C.F.R. ss 81.401-.437 (listing areas that have been designated as Class I areas where visibility is an important value). Numerous petitioners now challenge the Haze Rule. We vacate the rule in part and sustain it in part.

I. Introduction

"Regional haze," as EPA defines it, is visibility impairment caused by geographically dispersed sources emitting fine particles and their precursors into the air. See 64 Fed. Reg. at 35,715. The emission and movement of sulfur dioxide, oxides of nitrogen, and fine particulate matter from sources, such as power plants, contribute to haze. See id. Fine particulate matter scatters and absorbs light. See id.

Haze has degraded visibility in most of the country's national parks and wilderness areas. See id. The average visual range in many Class I areas in the western United States is 100 to 150 kilometers - which is just one-half to two-thirds the estimated visual range that would exist without manmade air pollution. See id. In most of the eastern United States, the average visual range is less than 30 kilometers - or about one-fifth the visual range that would exist under estimated natural conditions. See id.

Before 1977, the Clean Air Act (the "CAA" or the "Act") "did not elaborate on the protection of visibility as an air-quality related value." Chevron U.S.A., Inc. v. EPA, 658 F.2d 271, 272 (5th Cir. 1981). But in 1977, "[i]n response to a growing awareness that visibility was rapidly deteriorating in many places, such as wilderness areas and national parks," id. at 272, Congress added s 169A to the Act. See Clean Air Act Amendments of 1977, Pub. L. No. 95-95, s 128, 91 Stat. 685, 742 (current version at 42 U.S.C. s 7491). Section 169A established as a national goal the "prevention of any future, and the remedying of any existing, impairment in visibility in mandatory class I areas which impairment results from man-made air pollution." See 91 Stat. at 742 (current version at 42 U.S.C. s 7491(a)(1)). Congress directed EPA to issue regulations requiring states to submit State Implementation Plans ("SIPs") containing emission limits, schedules of compliance, and other measures necessary to make reasonable progress toward meeting the national visibility goal. See 91 Stat. at 743 (current version at 42 U.S.C. s 7491(b)(2)). In addition, Congress required states to address possible visibility impairment caused by currently-operating large stationary sources which had been in operation between 1962 and 1977. See 91 Stat. at 743 (current version at 42 U.S.C. s 7491(b)(2)(A)).

Congress also gave EPA the responsibility of promulgating regulations under s 169A to "assure ... reasonable progress toward meeting the national goal." See 91 Stat. at 742-43 (current version at 42 U.S.C. s 7491(a)(4)). EPA issued its first regulations in 1980. See 45 Fed. Reg. 80,084 (Dec. 2, 1980). The 1980 visibility regulations, which apply to states containing at least one Class I area, addressed visibility impairment reasonably attributable to one source, or to a small number of sources. See id. at 80,085. EPA limited the reach of the 1980 regulations to impairment attributable to specific sources and deferred any action on regional haze attributable to multiple sources located across broad geographic regions because there was insufficient data regarding the relationship between emitted pollutants, pollutant transport and visibility impairment. See id. at 80,086.

In 1990, Congress amended the Clean Air Act again, adding s 169B in an attempt to prompt EPA to further address visibility impairment in national parks and wilderness areas. See Clean Air Act Amendments, Pub. L. No. 101-549, s 816, 104 Stat. 2695 (1990) (current version at 42 U.S.C. s 7492). Section 169B requires, among other things, that EPA undertake research to identify "sources" and "source regions" of visibility impairment in Class I areas, consider designating transport commissions to study the interstate movement of pollutants, and establish a transport commission for the Grand Canyon National Park. See 42 U.S.C. s 7492.

EPA established the Grand Canyon Visibility Transport

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[1] "Class I" areas include all international parks, national wilder- ness areas which exceed 5,000 acres in size, national memorial parks which exceed 5,000 acres in size, and national parks which exceed 6,000 acres in size and which were in existence on August 7, 1977.
See 42 U.S.C. s 7472(a). The term "mandatory class I Federal areas" is defined as "Federal areas which may not be designated as
other than class I." Id. s 7491(g)(5). At the time the Haze Rule was promulgated, there were 156 Class I areas across the country.

See 64 Fed. Reg. at 35,714.

Commission ("GCVTC") in 1991 to assess information about the adverse impacts on visibility in and around sixteen Class I areas on the Colorado Plateau region and to provide policy recommendations to EPA to address such impacts. See 56 Fed. Reg. 57,522 (Nov. 12, 1991). The GCVTC issued its report to EPA in 1996. Then in 1997 EPA issued a notice of proposed rulemaking with regard to regional haze, see 62 Fed. Reg. 41,138 (July 31, 1997), noting that advances in scientific and technical knowledge, including analyses provided by the GCVTC, had made it possible for EPA to target region-wide visibility impairment. After receiving more than 1,300 comments to the proposed rule, EPA published the final Haze Rule on July 1, 1999. See 64 Fed. Reg. at 35,714. The final Haze Rule reaches all states because, EPA concluded, all states contain sources whose emissions are "reasonably anticipated to contribute to regional haze in a Class I area." Id. at 35,721. Under the Haze Rule, a state must develop and submit a SIP that provides for reasonable progress toward achieving "natural visibility conditions" in the national parks and wilderness areas in that state. See 40 C.F.R. s 51.308(d)(1). SIPs addressing regional haze in an "attainment" area must be submitted within one year of the date the area is designated as "attainment," and revised SIPs for "non-attainment" areas must be submitted within three years after the designation. See id. s 51.308(b)(1)-(2).

The Haze Rule, for the most part, does not specify what control measures a state must implement in its initial SIP. See 64 Fed. Reg. at 35,721 (noting that the determination of what specific control measures must be implemented "can only be made by a State once it has conducted the necessary technical analyses of emissions, air quality, and the other factors that go into determining reasonable progress"). But the rule does require states to: (1) provide for an improvement in visibility in the 20 percent most impaired days; (2) ensure that there is no degradation in visibility during the 20 percent clearest days; and (3) determine the annual rate of visibility improvement that would lead to "natural visibility" conditions in 60 years. See 40 C.F.R. s 51.308(d)(1); see also id. s 51.301; 64 Fed. Reg. at 35,734. A state may not adopt a rate of improvement that would achieve natural visibility conditions in more than 60 years unless it demonstrates that the 60-year rate is unreasonable. See 40 C.F.R. s 51.308(d)(1)(ii).

The Haze Rule also provides that each state must develop a long-term strategy for achieving its visibility improvement goals. This strategy must include the identification of all major stationary sources subject to Best Available Retrofit Technology ("BART") requirements. See id. s 51.308(e). In identifying sources subject to BART, the Haze Rule calls for states to use a group rather than a source-by-source approach. See 64 Fed. Reg. at 35,740 (providing that a state should find a source subject to BART "if it can be shown that the source emits pollutants within a geographic area from which pollutants can be emitted and transported downwind to a Class I area") (italics added). In addition, when establishing emission limits for BART sources, states must consider the improvement in visibility that would result if the technology were used at all comparable BART sources (rather than the improvement that a particular device at a particular source would accomplish). See 40 C.F.R. s 51.308(e)(1)(ii)(B).

The various petitioners and intervenors in this consolidated case raise numerous challenges to the Haze Rule. In Part II we address the claim that EPA acted contrary to law in establishing a group rather than a source-by-source approach to BART determinations. In Part III we address the claims of industry petitioners in Case Nos. 01-1111, 01-1112, and 01-1113 that EPA acted without legal authority and in anarbitrary and capricious manner in promulgating the "natural visibility" goal and the "no degradation" requirement in the regional haze regulations. Finally, in Part IV, we address the challenges raised by the Sierra Club - namely that EPA failed to set reasonable criteria for measuring or assuring reasonable progress, and that EPA acted contrary to law in extending the statutory deadline for submission of state haze control plans.

II. BART Issues

Under s 169A of the Act, each state must review all BART-eligible sources - meaning all major stationary sources built between August 1962 and August 1977 - to determine whether the sources emit "any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility" in a Class I area.[2] 42 U.S.C. s 7491(b)(2)(A). After deciding that a BART-eligible source emits a pollutant which may reasonably be anticipated to cause or contribute to Class I visibility impairment, the state then must determine what is the best available retrofit technology for controlling emissions from that source. See id. Under the Act, states must take the following five factors into consideration when deciding what BART controls to place on a source:

> the costs of compliance, the energy and nonair quality environmental impacts of compliance, any existing pollution control technology in use at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to

[2] A "major stationary source" is a source that has the potential to emit 250 tons or more of any pollutant. See 42 U.S.C. s 7491(g)(7).

result from the use of such technology.

Id. s 7491(g)(2).

The Haze Rule interprets and implements these statutory BART provisions in two main ways. First, the Haze Rule requires states to "find that a BART-eligible source is 'reasonably anticipated to cause or contribute' to regional haze if it can be shown that the source emits pollutants within a geographic area from which pollutants can be emitted and transported downwind to a Class I area." 64 Fed. Reg. at 35,740 (italics added). In other words, states must subject BART-eligible sources to BART requirements even absent empirical evidence of that source's individual contribution to visibility impairment in a Class I area so long as the source is located within a region that may contribute to visibility impairment. See id. at 35,740; see also Br. for EPA at 26-27. EPA explained in the preamble to the Haze Rule that this sort of "collective contribution" approach was "consistent with that taken in the programs for acid rain and ozone, programs which also address regional air quality problems caused by transported pollutants." 64 Fed. Reg. at 35,740; see also 63 Fed. Reg. at 57,376.

Second, the Haze Rule provides that once a state has decided that a particular source is subject to BART and is considering what BART controls to place on that source, the state must analyze "the degree of visibility improvement that would be achieved in each mandatory Class I Federal area as a result of the emission reductions achievable from all sources subject to BART located within the region that contributes to visibility impairment in the Class I area." 40 C.F.R. s 51.308(e)(1)(ii)(B) (italics added). This means that of the five statutory factors to be considered by states when determining BART controls, see 42 U.S.C. s 7491(g)(2), only four factors (the costs of compliance, the environmental impacts of compliance, any existing pollution control technology in use at the source, and the remaining useful life of the source) are considered on a source-specific basis. The Haze Rule requires states to consider the fifth statutory factor (the degree in improvement) on a group or "area wide" basis.

Industry petitioners attack EPA's decision to use a group rather than a source-by-source BART approach, arguing that the language, statutory structure, and legislative history of s 169A make it clear that the Haze Rule runs afoul of the Act. See Br. for Industry Pet'rs and Intervenor in Case Nos. 99-1348, et al. at 13. For the reasons that follow, we grant the petition for review, vacate the BART rules, and remand to EPA.

In the Haze Rule, EPA extracts one of the five statutory factors listed in s 169A(g)(2) and treats it differently than the area.[3] A similar problem arises when a state considers, as it must, other four. See 64 Fed. Reg. at 35,741 (providing that only "the degree in improvement in visibility that would be expected at each Class I area as a result of imposing BART" is to be considered on a group rather than a source-specific basis). In effect, EPA bifurcates the states' determination of the appropriate BART emission limitations for specific sources. States must first estimate possible emission reductions on a source-by-source basis based on the application of the technology, the cost, time for compliance, energy and nonair environmental impacts, and the remaining useful life of the source. See id.; see also 40 C.F.R. s 51.308(e)(1)(ii)(A). "Taking these factors into account allows the State to arrive at an estimate of the 'best system' of retrofit control technology for a particular source." 64 Fed. Reg. at 35,741. States must then calculate the degree in improvement in visibility that would be expected at each Class I area as a result of imposing BART on all sources subject to BART. See id.; see also 40 C.F.R. s 51.308(e)(1)(ii)(B).

EPA argues that its bifurcated approach to determining appropriate BART controls is permissible because s 169A(g)(2) is unclear about how a state must analyze anticipated visibility improvement. See Chevron U.S.A., Inc. v. Natural Res. Def. Council, 467 U.S. 837, 842-43 (1984). We cannot agree. The Haze Rule's splitting of the statutory factors is consistent with neither the text nor the structure of the statute. See 42 U.S.C. s 7491(g)(2). All five s 169A(g)(2) factors inform the states' inquiries into what BART controls are appropriate for particular sources. Although no weights were assigned, the factors were meant to be considered together by the states. The language of s 169A(g)(2) can be read in no other way. To treat one of the five statutory factors in such a dramatically different fashion distorts the judgment Congress directed the states to make for each BART-eligible source. This is most apparent with respect to the states' duty to take into account "the costs of compliance" in deciding not only whether to order an individual source to install any new pollution control equipment, but also what type of equipment - or as the statute puts it, what type of "retrofit technology." How is a state to determine what is too costly (and what is not) for a particular source? The statute answers that the state must consider the degree of improvement in visibility in national parks and wilderness areas that would result from the source's installing and operating the retrofit technology. EPA has a far different answer: in assessing the cost of compliance imposed on a source, the state may not consider the degree to which new equipment at a particular source would help cure the haze in some distant national park. Under EPA's take on the statute, it is therefore entirely possible that a source may be forced to spend millions of dollars for new technology that will have no appreciable effect on the haze in any Class I

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[3] EPA's rule requires states to consider the cost of compliance in terms of the likely emission reductions which would be achieved by the imposition of BART, no matter whether this reduction would enhanc visibility in downwind national parks. See 64 Fed. Reg. at 35,741 (explaining that the four factors, including cost, "should be taken into account for each source subject to BART in order to compare tradeoffs between the control efficiencies and costs associted with various control alternatives"). The preamble to the rule provides very little guidance about how states are to calculate the degree of improvement in visibility under the regime EPA contem-

the "existing pollution control technology in use at the source." How is a state to decide whether the source already has installed sufficient devices without determining how much, if at all, the source is contributing to visual impairment in downwind Class I areas? As the industry petitioners correctly note, there is no point during the Haze Rule's BART determination "in which it could be demonstrated that the degree of improvement in visibility obtained from installing a particular set of emissions controls at a source with 'exceedingly low' or even merely theoretical visibility impacts is not justified by the cost of BART in light of those low or theoretical impacts." Br. for Industry Pet'rs and Intervenor in Case Nos. 99-1348, et al. at 17-18.

The Haze Rule's treatment of s 169A(g)(2)'s degree-of-improvement calculation is, the industry petitioners argue, not the only respect in which the rule is inconsistent with the Act. As they see it, the Haze Rule also unlawfully constrains the states' statutory authority because under the Act it is the states - not EPA - who must determine which BART-eligible sources should be subject to BART. See 42 U.S.C. s 7491(b)(2)(A) (providing that each BART-eligible source that, "as determined by the State ... emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility," shall install and operate the best available retrofit technology (italics added)); see also id. s 7491(g)(2) (listing the factors that "the State ... shall take into consideration" in determining BART controls (italics added)).

We agree with these petitioners that the Haze Rule's BART provisions are inconsistent with the Act's provisions giving the states broad authority over BART determinations. See id. s 7491(b)(2)(A); see also id. s 7491(g)(2). The Haze Rule ties the states' hands and forces them to require BART controls at sources without any empirical evidence of the particular source's contribution to visibility impairment in a Class I area. See 64 Fed. Reg. at 35,740; see also Br. for EPA at 26-27. If the Haze Rule contained some kind of a mechanism by which a state could exempt a BART-eligible source on the basis of an individualized contribution determination, then perhaps the plain meaning of the Act would not be violated. But the Haze Rule contains no such mechanism. Section 169A(c)(1) - on which EPA relies - is a procedure by which the Administrator, with the approval of federal land managers, can exempt a source from BART requirements. See 42 U.S.C. s 7491(c)(1) ("The Administrator may, by rule, after notice and opportunity for public hearing, exempt any major stationary source from [the BART requirements], upon his determination that such source does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause or contribute to a significant impairment of visibility in any mandatory class I Federal area."); see also id. s 7491(c)(3). It does not provide the states with a means by which they can exempt sources based on individual contribution determinations.

Our conclusion that the Haze Rule's BART provisions impermissibly constrain state authority is reinforced by the Conference Report on the 1977 amendments to the Act. See Demby v. Schweiker, 671 F.2d 507, 510 (D.C. Cir. 1981). The Report explains:

> The agreement clarifies that the State, rather than the Administrator, identifies the source that impairs visibility in the Federal class I areas identified....
>
> In establishing emission limitations for any source which impairs visibility, the State shall determine what constitutes "best available retrofit technology" ... in establishing emission limitations on a source-by-source basis to be included in the State implementation plan so as to carry out the requirements of this section.

H.R. Conf. Rep. No. 95-564 (1977), reprinted in 3 Senate Comm. on Env't and Pub. Works, A legislative History of the

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plates. The preamble tells the states only this:

> To calculate the degree of improvement in visibility that would
> be expected at each Class I area as a result of imposing BART on all sources subject to BART, the State should estimate the possible emissions reductions resulting from the application of BART at all subject sources located within the region that contributes to visibility impairment in the Class I area. The State should work on its own or in conjunction with other States, such as a regional planning body, to determine the geographic scope of the region that contributes to each Class I area. The States should consult with one another to determine the emission reductions achievable from sources subject to BART in other states. Id.

Clean Air Act Amendments of 1977, at 535 (1978) [hereinafter "1977 Legislative History"]. The "agreement" to which the Conference Report refers was an agreement to reject the House bill's provisions giving EPA the power to determine whether a source contributes to visibility impairment and, if so, what BART controls should be applied to that source. See id. at 533-35. Pursuant to the agreement, language was inserted to make it clear that the states - not EPA - would make these BART determinations. See id. at 533-35; see also H.R. Res. 4151, 95th Cong. (1977), reprinted in 1977 Legislative History at 1985, 2325-30. The Conference Report thus confirms that Congress intended the states to decide which sources impair visibility and what BART controls should apply to those sources. The Haze Rule attempts to deprive the states of some of this statutory authority, in contravention of the Act.

In sum, we conclude that the Haze Rule's BART provisions are contrary to the text, structure and history of s 169A of the Act because the rule isolates s 169A(g)(2)'s benefit calculation and constrains authority Congress conferred on the states. Although petitioners also contended that no concept of a group or area-wide BART determination could ever be consistent with the Act,[4] we need not decide that broad issue today. We hold only that the Haze Rule's treatment of s 169A(g)(2)'s benefit calculation and its infringement on states' authority under the Act render the BART provisions of the rule impermissible.

III. The "Natural Visibility" Goal and the "No Degradation" Requirement

The industry petitioners in Case Nos. 01-1111, 01-1112, and 01-1113 ("Reconsideration Petitioners") cite four grounds in support of their claim that the "natural visibility" goal and the "no degradation" requirement in the Haze Rule should be vacated as "arbitrary and capricious" and otherwise not in accordance with law: (1) EPA exceeded its authority under s 169A(a)(1) and adopted regulations that conflict with the PSD program in establishing "natural visibility" as the goal of the regional haze program; (2) the regulations impermissibly constrain state discretion in requiring that the states develop their visibility programs using the "no degradation" requirement as a bench mark; (3) EPA has no authority to impose upon the states the goal of achieving "natural visibility" conditions, and thereby restrict the opportunity of some states to participate in the planning process aimed at addressing regional haze; and (4) EPA promulgated the Haze Rule without providing adequate notice and an opportunity for comment. We find no merit in these claims and, accordingly, deny industry petitioners' challenge to the "natural visibility" goal and the "no degradation" requirement.

Before we turn to the merits of petitioners' claims, we must first address EPA's contentions that petitioners' challenge to the natural visibility goal and their claims of inadequate notice are barred because they were not properly raised before the agency. We find no merit in EPA's contentions. Petitioners argued that the Haze Rule conflicted with the PSD program in both their comments to the agency before the regulations were issued and in their petition for reconsideration. See Supplemental Comments of the Utility Air Regulatory Group at 22, reprinted in Joint Appendix ("J.A.") 156; Petition for Reconsideration of the Regional Haze Regulations Submitted by Utility Air Regulatory Group & National Mining Ass'n at 10-11, reprinted in J.A. 97-98. Petitioners also sought notice and comment in connection with these portions of the Haze Rule in their petition for reconsideration. See Petition for Reconsideration of the Regional Haze Rule Submitted by the Center for Energy and Economic Development at 11-14, reprinted in J.A. 116-19.

On the merits, we reject petitioners' claim that EPA had no authority under s 169A to adopt the natural visibility goal. EPA acted under express congressional authorization in promulgating the challenged regulations. See 42 U.S.C. s 7491(a)(4). In a case such as this, where

> "there is an express delegation of authority to the agency to elucidate a specific provision of the statute by regulation," Chevron, 467 U.S. at 843-844, ... any ensuing regulation is binding in the courts unless procedurally defective, arbitrary or capricious in substance, or manifestly contrary to the statute.

United States v. Mead Corp., 533 U.S. 218, 227 (2001) (footnote omitted). The natural visibility goal is neither "manifestly contrary to the statute" nor "arbitrary or capricious in substance." Indeed, the goal is an eminently reasonable elucidation of the statute.

The statutory goal enunciated in s 169A(a)(1) is quite clear: "the prevention of any future, and the remedying of any existing, impairment of visibility." 42 U.S.C. s 7491(a)(1).

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[4] The industry petitioners argued that source-by-source BART determinations are required by the statute and that no concept of area-wide BART determinations is permissible. See Brief for Industry Pet'rs and Intervenor in Case Nos. 99-1348, et al. at 14 (arguing that s 169A makes it clear that BART determinations "must be made on a source-by-source basis"). Cf. Train v. Natural Res. Def. Council, 421 U.S. 60, 64 (1975) (discussing the history of the Clean Air Act and how the premise of the Act was to give states and local governments responsibility over preventing air pollution "at its source").

Petitioners argue that a "natural visibility" goal cannot be gleaned from this statutory standard. This claim is specious. Agency regulations that aim to remedy any existing impairment of visibility and prevent any future impairment - as the statute commands - will of necessity aim to achieve a state of natural visibility. There is no material inconsistency between the statutory and regulatory goals, for the latter merely elucidates the former.

The petitioners also claim that Congress did not intend for the statutory goal of s 169A(a) to displace the objectives of the PSD program. Therefore, according to petitioners, the natural visibility goal and the no degradation requirement cannot be squared with the PSD program, because that program recognizes that some impairment of visibility would be acceptable in Mandatory Federal Class I areas. We reject this argument, because EPA has reasonably construed the PSD program and the disputed regional haze rules as complementary regulatory regimes.

There are two things worth noting at the outset. First, the natural visibility goal is not a mandate, it is a goal. As EPA has explained, this goal serves as the foundation for analytical tools to be used by the states to set reasonable progress goals. 64 Fed. Reg. at 35,732-33 Petitioners' claim that the agency is without authority to mandate attainment of the national goal is therefore meritless.

Second, the statute specifically calls for regulations to assure "reasonable progress toward meeting the national goal" of remedying any current and preventing any future impairment of visibility. 42 U.S.C. s 7491(a)(4). The no degradation provision requires implementation plans to "provide for an improvement in visibility for the most impaired days over the period of the implementation plan and ensure no degradation in visibility for the least impaired days over the same period." 40 C.F.R. s 51.308(d)(1). This regulation plainly and permissibly serves to assure the reasonable progress sought by Congress.

The PSD program was adopted pursuant to the 1977 amendments to the Act. See generally Ala. Power Co. v. Costle, 636 F.2d 323, 349-51 (D.C. Cir. 1979). The program generally controls any additional deterioration of air quality by establishing maximum allowable increases of certain pollutants in specified areas. See 42 U.S.C. s 7473(b). It is therefore true, as industry petitioners point out, that the PSD program may sometimes allow for limited air quality deterioration. EPA, however, has taken pains to explain that the PSD program and the Haze Rule are not at odds:

> Section 169A of the CAA requires the EPA to promulgate regulations to ensure that the States revise their major new sources subject to PSD is not inconsistent with the regional haze program. The regional haze program is focused on long-term emission decreases from the entire regional emission inventory, comprised of major and minor stationary sources, area sources and mobile sources. We expect that long-term emission strategies for regional haze will derive substantial emission implementation plans to contain those measures necessary to make reasonable progress toward the national visibility goal. In addition to the remedying of any existing visibility impairment, that goal requires the prevention of any future visibility impairment in mandatory Class I Federal areas. As part of the overall strategy to effectuate that goal, the final rule requires States to identify all anthropogenic sources of visibility impairment. The States accordingly should take into account the cumulative effect of all existing, man-made sources of air pollution in developing their regional haze implementation plan as well as potential new sources.

With respect to the comment that EPA lacks authority to impose a welfare-based standard which renders other requirements of the CAA such a[s] PSD and NSPS largely superfluous, EPA notes that when Congress amended the CAA in 1977 to provide for the protection of visibility, it was aware of both the PSD and NSPS provisions. Nevertheless, Congress required EPA to issue regulations to address visibility. In contrast, the final regional haze rule requires States to take into account the visibility impact of emissions from both existing and new sources, and stationary and nonstationary sources. This is only one of many instances under the CAA in which Congress has provided for overlapping regulation. Indeed, the PSD and NSPS programs both focus on the control of emissions from new stationary sources. EPA believes that the regional haze rule and these other provisions are complementary means of improving air quality.

Commenters raised a number of specific questions regarding the interaction of the PSD program and the regional haze rule. One commenter asked the EPA to address the relationship of allowable Class I impacts to the proposed visibility impact limits. All PSD areas are categorized as Class I, II, or III. The classification of an area determines the corresponding maximum allowable increases, or increment, of air quality deterioration. Only a relatively small increment of air quality deterioration is permissible in Class I areas. These increments are measured over annual, 24-hour, and/or 3-hour averaging times. Nowhere, however, does the CAA provide that air quality must be allowed to deteriorate to the full extent allowed by the Class I increments standing alone. To read the statute in that manner would contravene both the general goals of the CAA to "protect and enhance" air quality (see section 101(b)(1)) but the specific long-term goal of section 169A is to eventually remedy existing visibility impairment in Class I areas. Accordingly, we believe that allowing localized air quality increases in the short-term due to the emissions from decreases from the inventory as a whole, and that these overall strategies will be able to accommodate some localized increases within the framework of a regional decrease. We also note that the overall inventory would decrease in cases where new sources are built that replace older, more polluting sources. Accordingly, we do not see any inherent conflict between the two pro-

grams.

> While the PSD program generally allows for a small increment of air quality deterioration in Class I areas, section 165 of the CAA also provides for the additional protection of air quality-related values, "including visibility," in Class I Federal areas beyond that provided by the increments. That is, where the FLM [Federal Land Manager] demonstrates that emissions from a new or modified source will have an adverse impact on air quality-related values (AQRVs), notwithstanding the fact that the emissions from the source do not cause or contribute to concentrations in excess of the increment for a Class I area, "a permit shall not be issued." Section 165(d). Thus, under PSD there can be no increase in emissions from the construction or modification of a major stationary source where that increase would result in adverse impacts on AQRVs in a Class I Federal area.

Responses to Significant Comments on the Notice of Proposed Rulemaking s I.F (Apr. 1999), reprinted in J.A. 1062-63.

The Government also reminds us that the PSD program "does not require that [visibility] deterioration occur. Nor does it create an entitlement to degrade air quality in general or visibility in particular, because nothing in the CAA provides for issuance of a PSD permit as a matter of right." Br. for EPA at 59. We agree.

Petitioners cite Alabama Power in an attempt to support their claim that the existence of the PSD program effectively bars "natural visibility" as a viable regulatory goal. Alabama Power supports no such claim. Indeed, the court noted that "[s]ection 169A is available to protect visibility in Class I areas where visibility is an important characteristic, and the [agency] may choose to invoke [its] rulemaking authority ... to address this problem." 636 F.2d at 368. In acknowledging the availability of s 169A, the court implicitly embraced EPA's view that the visibility program is a supplement to the PSD program.

Industry petitioners additionally claim that the no degradation requirement conflicts with s 169A(g)(1)'s list of factors that states must consider when determining reasonable prog- The latter is a "logical outgrowth" of the former. Fertilizer Inst. v. EPA, 935 F.2d 1303, 1311 (D.C. Cir. 1991). Therefore, EPA did not violate any notice and comment requirements in adopting the natural visibility goal as a part of the Haze Rule.

If there is any tension between the Haze Rule and the PSD program, it is EPA's responsibility to harmonize the regulatory requirements. It has done so in a perfectly reasonable fashion. EPA's regulatory harmonization is both consistent with the statute and reasonable. Accordingly, we deny the petitions for review of the natural visibility goal and the no degradation requirement.

ress. Section 169A(g)(1) states:

> in determining reasonable progress there shall be taken into consideration the costs of compliance, the time necessary for compliance, and the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements.

42 U.S.C. s 7491(g)(1). Petitioners argue that, because "reasonable progress" could at times involve degradation, the "no degradation" requirement restricts the States' authority to apply the statutory criteria. We disagree.

As noted above, the statute commands EPA to promulgate regulations assuring "reasonable progress toward meeting the national goal." Id. s 7491(a)(4). The national goal includes "the prevention of any future ... impairment of visibility." Id. s 7491(a)(1). The no degradation requirement simply elucidates "reasonable progress." The requirement does not, however, in any way alter the list of s 169A(g)(1) criteria. In fact, the cited statutory factors do not include "degradation." Therefore, the States will be able to comply with the no degradation requirement while applying the s 169A(g)(1) criteria.

Next, although the petitioners assert that the Haze Rule somehow restricts the opportunity of some states to participate in the planning process aimed at addressing regional haze, we can find no real evidence in support of this claim. This contention certainly offers no ground upon which to vacate the disputed regulations.

Finally, petitioners claim that they did not have fair notice and an adequate opportunity to comment on the regulatory goal of natural visibility, because "EPA provided no notice in its 1997 proposal that it intended to require States to achieve natural visibility conditions." Br. for Reconsideration Pet'rs at 25. Rather, according to petitioners, EPA merely proposed regulations patterned on the statutory goal enunciated in s 169A(a)(1), i.e., "'preventing any future, and remedying any existing, impairment of visibility.'" Br. for Reconsideration Pet'rs at 25 (quoting old 40 C.F.R. s 51.300(a)(1)). This argument is meritless. As noted above, there is no material inconsistency between the statutory goal enunciated in s 169A(a)(1) and the regulatory goal of "natural visibility."

IV. The "Reasonable Progress" Criteria and the Extension of the Statutory Deadline

While the Industry Petitioners attack the Regional Haze Rule as overstepping EPA's statutory authority, Sierra Club argues that EPA has not gone far enough to meet its statutory responsibilities.

In its first cluster of attacks on the Haze Rule, Sierra Club contends that the Rule does not satisfy EPA's responsibility under CAA s 169A(a)(4) to "promulgate regulations to assure ... reasonable progress toward meeting the national [visibility] goal," 42 U.S.C. s 7491(a)(4), its responsibility under CAA s 169B(e)(1) to establish "criteria for measuring 'reasonable

progress' toward the national goal," 42 U.S.C. s 7492(e)(1), and its obligation under the Administrative Procedure Act not to act in an "arbitrary or capricious" fashion, 5 U.S.C. s 706 (2)(A). Sierra Club argues that the Haze Rule's requirements for improvement in visibility during the 20 percent most impaired days and for no degradation during the 20 percent least impaired days, 40 C.F.R. s 51.308(d)(1); see also 64 Fed. Reg. at 35,734, do not qualify as "reasonable progress" criteria and are arbitrary and capricious. Similarly, it argues that the Rule's requirement that a state not adopt a rate of improvement that would take more than 60 years to achieve natural visibility unless the state demonstrates that the 60-year rate is unreasonable, 40 C.F.R. s 51.308(d)(1)(i)(b), (ii), does not meet the statutory mandates and lacks "requisite specificity" because a state would be "free to reject the 60 year time frame merely by claiming that such a schedule is not 'reasonable.'" Reply Br. for Sierra Club at 5, 8.

We might well consider the latter attack unripe even without reference to our decision in Part II that the group-BART provisions of the Haze Rule are invalid. If in the future a state does conclude that it needs more than 60 years to achieve natural visibility, and if EPA decides to accept that conclusion, it will at that time be open to Sierra Club to challenge EPA's decision as arbitrary and capricious. In the meantime, this court will certainly "'benefit from postponing review until the policy in question has sufficiently crystallized.'" Grand Canyon Air Tour Coalition v. FAA, 154 F.3d 455, 472 (D.C. Cir. 1998) (quoting Florida Power & Light Co. v. EPA, 145 F.3d 1414, 1421 (D.C. Cir. 1998)).

But in any event, our decision to invalidate the group-BART provisions renders this entire cluster of challenges unripe for disposition. Because those provisions were intimately related to EPA's assessment of what was necessary to achieve the goal of natural visibility, we cannot be sure whether on remand EPA will retain its current criteria for evaluating reasonable progress or adopt others. If the invalidation of the group-BART provisions causes EPA to doubt the efficacy of the remaining elements of the Haze Rule, perhaps EPA will see wisdom in some of Sierra Club's complaints and, for example, increase the percentage of days during which there must be improvement in visibility, or increase the specificity of its criteria for reasonable progress. In light of the uncertainty that our decision creates with respect to the form of the rule that may emerge upon remand, the only prudent course is for us to decline to address Sierra Club's challenges at this juncture.

Sierra Club's second major attack on the Haze Rule challenges EPA's determination to give states 3 years to file haze SIPs for areas designated "attainment" or "unclassifiable." We are troubled by EPA's action, which appears to contravene express statutory language, but in light of our decision regarding group-BART we leave this to EPA to reconsider on remand as well.

The Transportation Equity Act for the 21st Century, Pub. L. No. 105-178, 112 Stat. 107, 463 (1998) ("TEA-21"), provides that, for areas designated as "nonattainment" for the new national ambient air quality standard (NAAQS) for fine particulate matter, EPA shall require states to submit haze SIPs 3 years after the area has been so designated. See TEA-21 s 6102(c)(2) (incorporating the 3-year deadline of 42 U.S.C. s 7492(e)(2)). However, TEA-21 also expressly mandates that for any area designated as "attainment" or "unclassifiable" for that standard, EPA "shall require the [SIP] to be submitted 1 year after the area has been so designated." Id. Nonetheless, the Haze Rule permits a state to "choose to defer addressing the [Rule's] core requirements for regional haze ... and the requirements for BART" by submitting a so-called "commitment SIP," containing a "demonstration of ongoing participation in a regional planning process to address regional haze, and an agreement ... to continue participating," a "description of the regional planning process," and a "list of all BART-eligible sources within the state." 40 C.F.R. s 51.308(c), (c)(1). If a state submits such a commitgional haze," nor its "requirements for BART," 40 C.F.R. s 51.308(c), does not appear to satisfy the statutory requirement. Cf. Natural Res. Def. Council, Inc. v. EPA, 22 F.3d 1125, 1134 (D.C. Cir. 1994) (holding, under CAA s 110(k)(4), that EPA cannot satisfy its responsibility to determine whether a state plan submission complies with the CAA unless the submission "contains something more than a mere promise to take appropriate but unidentified measures in the future," and that a submission containing nothing more than such a commitment cannot extend the statutory deadline).

Notwithstanding our doubts about the validity of this provision, we decline to vacate it in light of the uncertainty that our decision invalidating the group-BART provisions of the Haze Rule will cast upon the contents of the SIPs required of the states. With the Rule and hence the contents of the SIPs now altered and subject to revision on remand, the more prudent course for this court is simply to remand the deadline-extension issue as well. This will permit the agency to reconsider its decision to extend the deadline at the same time that it decides what form the substantive requirements

On its face, this provision of the Haze Rule appears to extend the express statutory deadline for "attainment" and "unclassifiable" areas, an action which is beyond the agency's authority. See Sierra Club v. EPA, 129 F.3d 137, 140 (D.C. Cir. 1997) (holding that EPA cannot establish a "grace period" for compliance when not authorized to do so by the CAA); Sierra Club v. EPA, 719 F.2d 436, 469 (D.C. Cir. 1983) (reversing an EPA implementation plan that would have effectively extended the statutory deadline for state submissions under CAA amendments). The statute requires states to submit, by the 1-year deadline, SIPs "contain[ing] such emission limits, schedules of compliance, and other measures as may be necessary to carry out" the haze regulations. 42

U.S.C. s 7492(e)(2) (incorporated by reference into TEA-21 s 6102(c)(2)). A commitment SIP, which by definition addresses neither the Haze Rule's "core requirements for re-

of a revised Haze Rule should take.

Garland, Circuit Judge, concurring in part and dissenting in part: In the Clean Air Act, Congress declared a national goal of restoring natural visibility in the country's largest national parks and wilderness areas. In Part II of today's opinion, the court adopts an interpretation of the Act that, in the view of the Environmental Protection Agency (EPA) and the National Academy of Sciences, will prevent the achievement of Congress' goal. If that interpretation were required by the statutory language, we would of course be compelled to adopt it. But such an interpretation is not required. To the contrary, EPA's construction of the Clean Air Act as permitting the group-BART provisions of the Haze Rule is a reasonable interpretation of the legislative language. It is therefore entitled to our deference under the standard announced in Chevron U.S.A. Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837, 842-43 (1984). Accordingly, while concurring in most of the court's opinion, I dissent from the conclusions it reaches in Part II.

A

Chevron instructs courts to apply a two-step framework when reviewing an agency's construction of a statute. First, we must ask "whether Congress has directly spoken to the precise question at issue," in which case we "must give effect to the unambiguously expressed intent of Congress." Id. at 842-43. However, if the "statute is silent or ambiguous with respect to the specific issue," we move to the second step and must defer to the agency's interpretation as long as it is "based on a permissible construction of the statute." Id. at 843; accord Barnhart v. Walton, 122 S.Ct. 1265, 1271-72 (2002).

My colleagues stop at Chevron's first step, concluding that the language of the Clean Air Act (CAA) can be read in only one way. They adopt the view of the industry petitioners that under the Act, BART ("best available retrofit technology") controls cannot be imposed on a source unless a state determines how much that particular source contributes to visual impairment in a downwind national park or wilderness area, as well as how much improvement in visibility would result from installing BART controls at that specific source. Op. at 10-11. EPA, by contrast, interprets the Clean Air Act

as permitting a collective assessment of the impact that emissions from (and controls on) sources located in upwind regions have on visibility impairment in downwind areas.

Before considering the grounds for the court's decision, it is important to understand why EPA decided to require a collective contribution approach, rather than a tracing of the effects of each individual source's emissions. Congress added s 169A to the Clean Air Act "[i]n response to a growing awareness that visibility was rapidly deteriorating" in major national parks and wilderness areas ("Class I areas"). Chevron U.S.A., Inc. v. EPA, 658 F.2d 271, 272 (5th Cir. 1981). The section establishes a national goal of restoring natural visibility in such areas,[1] and expressly instructs EPA to issue

[1] Section 169A declares the national goal to be "the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas." 42 U.S.C. s 7491(a)(1). As the court holds today, agency regulations that aim to accomplish these objectives "will of necessity aim to achieve a state of natural visibility." Op. at 16.

regulations to "assure ... reasonable progress" toward meeting the national goal. 42 U.S.C. s 7491(a)(4). After examining the results of scientific studies, EPA concluded that such reasonable progress was not possible without a collective approach. The record compiled by EPA showed that visibility impairment in Class I areas is caused in large part by long-range transport of combined emissions from multiple sources.[2] Although it is practicable to trace emissions from an individual source into its surrounding region, and to model the transport of combined pollution from that region to a downwind Class I area,[3] it is not possible to trace emissions from an individual source directly to such a downwind area without great time and expense[4]--and even then the results would be of uncertain reliability.[5] Citing the National Academy of Sciences' conclusion that a program focused "on determining the contribution of individual emission sources to visibility impairment is doomed to failure,"[6] EPA adopted the group-BART approach that is at issue here.

My colleagues do not dispute that we must defer to EPA's expert opinion regarding the impracticability of tracing individual source emissions.[7] Rather, they conclude that notwithstanding EPA's view of the facts, the industry petitioners are correct that the Haze Rule's group-BART provisions violate the plain meaning of the Clean Air Act by: (i) employing a group rather than source-by-source standard in determining the appropriate BART controls for a particular source, and (ii) constraining the authority of the states to make their own BART-related decisions. These two contentions are considered in Parts B and C below. Because I conclude that there is nothing in the Clean Air Act that bars the approach taken by EPA, and that to the contrary the Haze Rule rests on a reasonable interpretation of the statutory language, I would follow the Supreme Court's direction in Chevron and uphold the Rule.

B

As the court notes, the Haze Rule employs a group analysis in making two determinations required by the Clean Air Act: (i) whether a pollution-emitting source is subject to BART

[2] See, e.g., Congressional Research Service, Regional Haze: EPA's Proposal to Improve Visibility in National Parks and Wilderness Areas 2 (1997) (J.A. at 242); National Academy of Sciences, National Research Council, Protecting Visibility in National Parks and Wilderness Areas 7-8, 196-99 (1993) (J.A. at 362, 456-57) [hereinafter "NAS Report"].

[3] See Regional Haze Regulations, 64 Fed. Reg. 35,714, 35,718 (July 1, 1999). The court does not dispute the reasonableness of, or support for, the latter proposition. Cf. Appalachian Power Co. v. EPA, 135 F.3d 791, 802 (D.C. Cir. 1998) (noting that "computer models are a useful and often essential tool for performing the Herculean labors Congress imposed on EPA in the Clean Air Act," and that "their scientific nature does not easily lend itself to judicial review" (internal quotation marks omitted)); id. at 814 ("[O]ur consideration of EPA's use of computer models proceeds with considerable deference to the agency's expertise.").

[4] See NAS Report at 240-41 (J.A. at 478) ("It would be extremely time-consuming and expensive to try to determine the percent contribution of individual sources to haze one source at a time."); Regional Haze Regulations, 64 Fed. Reg. at 35,740 ("[E]stablishing the contribution from one particular source to the problem of regional haze would require lengthy and expensive studiesand pose substantial technical difficulties.").

[5] See NAS Report at 2 (J.A. at 359) ("During transport, the emissions from many sources mix together to form a uniform, widespread haze known as regional haze."); id. at 20 (J.A. at 368) ("[T]he extent to which [source-specific] techniques can be used in attributing visibility impairment is uncertain, as is their usefulness in estimating the effect that different control strategies might have on visibility."); id. at 25-26 (J.A. at 370-71) ("Efforts to decide whether a particular source is contributing to regional haze have thus far encountered grave obstacles. Studies designed to estimate the effect of a particular source on surrounding visibility are expensive, and the results can be uncertain and controversial."). To take just one example, "the efforts to trace the contribution of the Navajo Generating Station to haze in the Grand Canyon National Park took several years and cost millions of dollars without leading to quantitatively definitive answers." Id. at 7 (J.A. at 361).

[6] EPA, Resp. to Pets. for Recons. of Regional Haze Rule 16 (Jan. 10, 2001) (J.A. at 17) (quoting NAS Report at 7 (J.A. at 361)); see also NAS Report at 240 (J.A. at 478) ("The committee doubts ... that such attributions could be the basis for a workable visibility protection program.").

[7] See Appalachian Power, 135 F.3d at 801-02 ("Our analysis is guided by the deference traditionally given to agency expertise, particularly when dealing with a statutory scheme as unwieldy and science-driven as the Clean Air Act."); see also Husqvarna AB v. EPA, 254 F.3d 195, 199 (D.C. Cir. 2001).

requirements at all, and (ii) what kind of BART controls should be placed on a subject source. The industry petitioners contend that the Clean Air Act prohibits the use of a group standard in making either of these determinations.

Under the Act, a source is subject to BART requirements, and hence a state implementation plan must require such a source to install BART controls, if it "emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any [Class I] area." CAA s 169A(b)(2)(A), 42 U.S.C. s 7491(b)(2)(A). Under the Haze Rule, a state must "find that a BART-eligible source is 'reasonably anticipated to cause or contribute' to regional haze if it can be shown that the source emits pollutants within a geographic area from which pollutants can be emitted and transported downwind to a Class I area." Regional Haze Regulations, 64 Fed. Reg. at 35,740. That is, a source is subject to BART requirements, without proof of that source's individual contribution to visibility impairment in a Class I area, as long as the source emits pollutants into an upwind area from which pollutants may be transported to a downwind Class I area. Id.

The industry petitioners contend that CAA s 169A(b)(2) unambiguously provides that a source is subject to BART requirements only if a state can show the extent to which that particular source contributes to impairment in a Class I area. That section, however, requires states to impose BART controls on any source that "emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any [Class I] area." 42 U.S.C. s 7491(b)(2)(A) (emphasis added). Far from plainly compelling the petitioners' reading, the italicized words pile ambiguity upon ambiguity and virtually invite the reader to adopt the construction favored by EPA. See Merriam-Webster's Collegiate Dictionary 252 (10th ed. 1996) (defining "contribute" as "to give or supply in common with others," or "to give a part to a common ... store") (emphasis added); Central Ariz. Water Conservation Dist., 990 F.2d 1531, 1541 (9th Cir. 1993) ("The phrase 'may reasonably be anticipated' suggests that Congress did not intend to require EPA to show a precise relationship between a source's emissions and all or a specific fraction of the visibility impairment within a Class I area." (quoting with approval National Research Council, Haze in the Grand Canyon: An Evaluation of the Winter Haze Intensive Tracer Experiment 5 (1990))). If a source is one of several that emit pollutants into an upwind area, and if pollution from that area is transported downwind to a national park,[8] then it can hardly be unreasonable to conclude that the pollutants issued by the source "may reasonably be anticipated" to "contribute" to "any" impairment in the park.

My colleagues wisely do not accept the industry petitioners' contention that s 169A(b)(2) bars a collective determination of whether a source is subject to BART. (As discussed in Part C infra, they do conclude that EPA may not require the states to employ such a mode of analysis.) They do, however, accept the petitioners' contention that to determine the kind of BART controls that should be imposed on a subject source, a state must determine how much that particular source contributes to visual impairment in the downwind Class I area, Op. at 11, as well as the degree of improvement in visibility that would occur in the downwind area if that particular source installed such controls, id. at 10. The Haze Rule, by contrast, provides that once a state has concluded that a particular source is subject to BART requirements, in determining the kind of BART controls to place on the source the state must consider the degree of improvement that would be achieved in the downwind area by imposing BART controls on all subject sources in the contributing upwind area. See 40 C.F.R. s 51.308(e)(1)(ii)(B); Regional Haze Regulations, 64 Fed. Reg. at 35,741.

The industry petitioners rest their contention that the statute unambiguously bars this collective assessment approach on s 169A(g)(2), which states:

> [I]n determining best available retrofit technology the State ... shall take into consideration [1] the costs of compliance, [2] the energy and nonair quality environmental impacts of compliance, [3] any existing pollution control technology in use at the source, [4] the remaining useful life of the source, and [5] the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

42 U.S.C. s 7491(g)(2). According to both the industry petitioners and the court, this section requires the state to take into consideration each of the five listed factors on a source-by-source basis. Since the Haze Rule does require source-by-source consideration of the first four factors, see Regional Haze Regulations, 64 Fed. Reg. at 35,740-41; Op. at 9, the only question is whether such consideration is also required of the fifth factor: "the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology."

There is nothing in the statutory language that requires a

[8] Under the Haze Rule, the state must establish the first condition directly and the second through the application of computer modeling techniques. See Regional Haze Regulations, 64 Fed. Reg. at 35,740, 35,741; supra note 3.

source-by-source application of the fifth factor. Section 169A(g)(2) requires an assessment of the degree of improvement that may reasonably be anticipated "from the use of such technology," but it does not say whether that improvement must be from the use of such technology by a single source or by all sources in the upwind area.[9] Although the court says that the statute does not permit any of the five factors to be treated differently from any of the others, the statute itself does not say so. Moreover, the first four factors are different in kind from the fifth: the first four all go to the cost of imposing controls on a particular source and permit a determination of the most cost-effective control technology for each such source. Regional Haze Regulations, 64 Fed. Reg. at 35,740-41. The fifth factor, by contrast, goes to the benefit to be derived from using the most cost-effective controls. In EPA's expert view, that benefit can best be determined by considering the total benefit that would accrue if each source in the upwind area used the kind of controls most cost-effective for that source.

The industry petitioners concede that s 169A(g)(2) does not require a state to undertake a cost-benefit analysis in deciding the type of controls to impose, or specify the weight to be accorded to any of the five factors.[10] All that is required is that the state "take into consideration" the five listed factors. 42 U.S.C. s 7491(g)(2). Because the statute does not specify how the state should take those factors into consideration, it does not bar EPA from employing a group rather than source-by-source mode of analysis in considering benefits. See Weyerhaeuser Co. v. Costle, 590 F.2d 1011, 1045 (D.C. Cir. 1978) (holding that where "Congress did not mandate any particular structure or weight" for the factors EPA is to consider, "it left EPA with discretion to decide how to account for the consideration factors, and how much weight to give each factor"); see also New York v. Reilly, 969 F.2d 1147, 1150 (D.C. Cir. 1992) (same).

Other related provisions of the Clean Air Act support EPA's reading of s 169A(g)(2) as permitting a region-wide assessment. Section 169A(a)(3) directs EPA to undertake a study to "identify the classes or categories of sources ... which, alone or in conjunction with other sources ..., may reasonably be anticipated to cause or contribute significantly to impairment of visibility," 42 U.S.C. s 7491(a)(3) (emphasis added), and s 169A(b)(1) directs that the regulations promulgated under s 169A take into account the recommendations of that study, 42 U.S.C. s 7491(b)(1). Similarly, s 169B(a)(1) instructs EPA to conduct research "to identify and evaluate sources and source regions of ... visibility impairment." 42 U.S.C. s 7492(a)(1) (emphasis added); see id. s 7492(a)(2). These provisions not only permit, but again appear to invite a group-BART approach.

The court states that "under EPA's take on the statute, it is ... entirely possible that a source may be forced to spend millions of dollars for new technology that will have no appreciable effect on the haze in any Class I area." Op. at 10. In accordance with the statute, however, EPA has structured the Haze Rule to avoid this result. The Rule creates an evidentiary presumption that, if a source emits pollution into an upwind region from which it can be shown that pollution is transported downwind to a Class I area, then it "may reasonably be anticipated" that the source "cause[s] or contribute[s] to" impairment in the Class I area--and hence that limiting the source's emissions will reduce that impairment.[11] But the presumption is not irrebuttable. To the contrary, the Haze Rule incorporates the exemption provision of s 169A(c)(1), which permits EPA to

> exempt any major stationary source from the [BART]

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[9] See Regional Haze Regulations, 64 Fed. Reg. at 35,741 ("EPA interprets the language 'from the use of such technology' to refer to the application of BART level controls to all sources subject to BART.").

[10] Reply Br. for Industry Pet'rs at 8 ("Industry Petitioners agree ... that states are free to determine the weight and significance to be assigned to each of the CAA s 169A(g)(2) factors."); see Op. at 10; cf. American Textile Mfrs. Inst., Inc. v. Donovan, 452 U.S. 490, 510 (1981) ("When Congress has intended that an agency engage in cost-benefit analysis, it has clearly indicated such intent on the face of the statute."); Central Ariz., 990 F.2d at 1542 n.10 (holding that "Congress has not required 'cost-benefit' analysis in the [Clean Air] Act").

[11] The court does not dispute the reasonableness of this presumption. See American Iron & Steel Inst. v. EPA, 115 F.3d 979, 1000 (D.C. Cir. 1997) (holding that it is reasonable for EPA to presume that if a pollutant is present in fish tissue at a level exceeding that set by regulation, then any facility "that contributes a pollutant to a body of water [in which the fish swims] ... has the reasonable potential to contribute to that exceedence"); see also Baltimore Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 103 (1983) (holding that a reviewing court must be "at its most deferential" when the agency is "making predictions, within its area of special expertise, at the frontiers of science"); American Trucking Ass'ns, Inc. v. EPA, 175 F.3d 1027, 1055 (D.C. Cir. 1999) ("[W]e have expressly held that EPA's decision to adopt and set air quality standards need only be based on reasonable extrapolations from some reliable evidence." (internal quotation marks omitted)), rev'd on other grounds sub nom. Whitman v. American Trucking Ass'ns, Inc., 531 U.S. 457 (2001).

requirement of subsection (b)(2)(A) of this section, upon his determination that such source does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause or contribute to a significant impairment of visibility in any mandatory class I Federal area.

42 U.S.C. s 7491(c)(1); see also 40 C.F.R. ss 51.303, .308(e)(4). Hence, a source that emits pollution into a source region, but that can show that BART controls are unnecessary because its pollution does not contribute to a significant impairment of visibility in a Class I area, will not have to spend money installing BART controls.[12] All that the Haze Rule does is put the burden of proof on the polluter, rather than on the state. Moreover, the statute's limitation of the exemption to a source that does not by itself "or in combination with other sources" contribute to a significant impairment, 42 U.S.C. s 7491(c)(1), once again invites the collective-assessment approach taken by EPA.

Finally, one more provision of s 169A deserves repeat mention here. As discussed in Part A above, s 169A(a)(4) instructs EPA "to promulgate regulations to assure reasonable progress toward meeting the national goal" of restoring natural visibility conditions. 42 U.S.C. s 7491(a)(4). Yet EPA's findings indicate that it will not be possible "to assure reasonable progress" if the statutory interpretation announced today prevails: it is simply not practicable to determine, as the court's interpretation requires, how much a particular "source is contributing to visual impairment in downwind Class I areas," or the degree of improvement in visibility in such areas "that would result from [a particular] source's installing and operating" BART controls. Op. at 11, 10; see supra notes 4, 5. Indeed, EPA explained that it "avoided inclusion of any approach in the regional haze rule that required the assessment of the visibility improvement attributed to an individual source because" the National Academy of Sciences had determined that such an approach was "doomed to failure." Resp. to Pets. for Recons. of Regional Haze Rule 16 (Jan. 10, 2001) (J.A. at 17) (quoting National Academy of Sciences, National Research Council, Protecting Visibility in National Parks and Wilderness Areas 7-8, 196-99 (1993) (J.A. at 362, 456-57)). We should not lightly assume that Congress enacted a statute that makes it impracticable to achieve the same statute's stated goal. There certainly is nothing in the language of the Clean Air Act that requires us to adopt such a self-defeating construction.

C

The industry petitioners' second attack on the Haze Rule marches under the banner of states' rights, but in this case that banner is a false flag. The Rule gives states great leeway to make the BART determinations required by the Clean Air Act, reserving to EPA no more authority than Congress conferred upon the agency. Moreover, as discussed above, the industry petitioners' insistence that both EPA and the states are barred from using group-BART principles will impose an enormous unfunded mandate on the states--requiring them to engage in lengthy, expensive, and likely fruitless studies to trace pollutants from specific sources into specific Class I areas.[13] It is not surprising, therefore, that only a single state has enlisted under the petitioner's banner. Five others have filed briefs in support of EPA, while the balance remain silent.

The industry petitioners attack, as unlawfully constraining state authority, both the provision of the Haze Rule that concerns which sources are subject to BART requirements, and the provision that concerns the kind of BART controls that must be installed on subject sources. With respect to the former, the petitioners emphasize s 169A's declaration that "each major stationary source ... which, as determined by the State ... emits any air pollution which may reasonably be anticipated to cause or contribute to any impairment of visibility" in a Class I area, is subject to BART requirements. 42 U.S.C. s 7491(b)(2)(A) (emphasis added). With respect to the latter, they stress that s 169A requires that each subject source install "the best retrofit technology, as determined by the State," 42 U.S.C. s 7491(b)(2)(A), and that "in determining best available retrofit technology the State ... shall take into consideration" the five factors discussed in Part B above, id. s 7491(g)(2) (emphasis added). By directing the states to employ a group-BART analysis in making these determinations, the industry petitioners contend, and the court agrees, that EPA has unlawfully constrained the states' decisionmaking authority. Op. at 11-13.

The Haze Rule, however, does not contravene the statutory commands italicized above. Under the Rule, it is the state

[12] The court correctly notes that under this exemption, it is EPA rather than the state that determines whether a source has made the required showing. EPA, however, does not rely on the exemption to answer the state-authority issue discussed in Part C below, but rather to counter the petitioners' claim that the Haze Rule fails to provide a source with the opportunity to demonstrate that it makes no appreciable contribution to visibility impairment in a Class I area. Br. for EPA at 29-30, 32.

[13] See supra notes 4, 5; Br. for Maine, et al. at 10 (protesting that to adopt the industry petitioners' interpretation of s 169A(g)(2) "would impose staggering and costly administrative burdens" on the states).

and not EPA that determines which specific sources emit pollution that "may reasonably be anticipated to cause or contribute to" impairment, and hence are subject to BART requirements. All that EPA has done, as explained in Part B, is reasonably interpret that phrase to include sources that emit pollution into upwind regions from which pollution is transported to national parks. It is still the state that must determine both that the source emits covered pollutants, and that the region into which the source emits such pollutants is one from which emissions may reasonably be anticipated to be transported to downwind parks. See 40 C.F.R. s 51.308(e)(1)(ii); Regional Haze Regulations, 64 Fed. Reg. at 35,739-41; Br. for EPA at 43. Similarly, it is still the state that must take into consideration the five statutory factors and the state that must then determine the best available retrofit technology for a particular source. All that EPA has done, again as explained in Part B, is reasonably interpret the fifth of those factors to require the state to analyze the degree of anticipated improvement on a group basis. See Regional Haze Regulations, 64 Fed. Reg. at 35,741.

Moreover, the Clean Air Act expressly delegates to EPA the authority to make these kinds of judgments. As already noted, s 169A directs EPA to promulgate regulations to assure reasonable progress toward meeting the national goal of restoring natural visibility. 42 U.S.C. s 7491(a)(4). It further instructs that those regulations shall "provide guidelines to the States ... on appropriate techniques and methods for implementing" the section's provisions, including the provisions governing which sources are subject to BART requirements and the kind of BART controls that should be imposed. Id. s 7491(b)(1). The section likewise directs EPA to "require each applicable implementation plan for a State ... to contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal" of restoring natural visibility. Id. s 7491(b)(2). Similarly, the next section of the Act, s 169B, orders EPA to "carry out [its] regulatory responsibilities" under s 169A by promulgating "criteria for measuring 'reasonable progress' toward the national goal." 42 U.S.C. s 7492(e)(1). These provisions give EPA ample authority to promulgate guidelines requiring states to use group-BART principles to determine both the sources that are subject to BART requirements and the kinds of controls those sources must install.

My colleagues contend that the Conference Report on the 1977 Clean Air Amendments reinforces their view that the Haze Rule impermissibly constrains state authority. Op. at 13. But that report is a weak reed upon which to rest a Chevron step one claim regarding the Act's plain meaning. As the court recounts, the report merely states that the conference "agreement clarifies that the State, rather than the Administrator, identifies the source that impairs visibility," and that in determining the appropriate BART controls for such a source, "the state shall determine what constitutes 'best available retrofit technology' ... in establishing emission limitations on a source-by-source basis." H.R. Conf. Rep. No. 95-564, at 535 (1977). The report tells us nothing more about the referenced "agreement" than can be gleaned from these quotations, and the quotations themselves do little more than restate the statutory language. Moreover, as noted above, the Haze Rule is consistent with these quotations: under the Rule, it is the state rather than EPA that identifies the sources that impair visibility, and it is the state that determines the best available retrofit technology for each such individual source. All that the group-BART provisions of the Rule do is effectuate EPA's authority to "provide guidelines to the states" for making these determinations regarding particular sources. 42 U.S.C. s 7491(b)(1).[14]

As the Clean Air Act repeatedly declares, restoring natural visibility to national parks and wilderness areas is a "national" goal. See id. s 7491(a)(1), (a)(4), (b)(2), (b)(2)(B); id. s 7492(e)(1). It is not surprising, therefore, that while the Act leaves many determinations regarding particular sources to the states, it grants EPA authority to establish national guidelines for the kind of analysis the states must employ in making those determinations.[15] Under the statute, those guidelines must "assure ... reasonable progress toward meeting the national goal" of restoring natural visibility. Id. s 7491(a)(4). Because EPA has reasonably determined that group-BART principles are necessary to provide such assurance, the provisions of the Haze Rule that incorporate those

[14]The court states that the "agreement" referred to in the report was an agreement to reject the provisions of an earlier House bill. As there may have been many reasons for rejecting that bill, the "[r]ejection of [the] proposed legislation during the course of enactment provides a hazardous basis from which to determine legislative intent," GAO v. GAO Pers. Appeals Bd., 698 F.2d 517, 525 n.52 (D.C. Cir. 1983), and a particularly hazardous foundation for a Chevron step one claim. In any event, the most the court can divine regarding the content of the agreement is that it was to insert language clarifying that the states were to "deter-mine whether a source contributes to visibility impairment and, if so, what BART controls should be applied to that source." Op. at 13. As noted in the text, the Haze Rule leaves both determinations in the hands of the states.

[15]Cf. Appalachian Power Co. v. EPA, 249 F.3d 1032, 1047 (D.C. Cir. 2001) (holding that a state's development of its implementation plan under CAA s 110 is not "free of extrinsic legal constraints," including EPA's reasonable construction of CAA s 126).

principles are a permissible exercise of the agency's delegated power.

D

In sum, there is nothing in the language, structure or history of the Clean Air Act that bars EPA from promulgating the group-BART provisions of its Haze Rule. To the contrary, those provisions represent "a reasonable interpretation of an ambiguous statute," and therefore must be given effect by this court. Christensen v. Harris County, 529 U.S. 576, 586 (2000) (citing Chevron, 467 U.S. at 842-844). Accordingly, I respectfully dissent from the court's decision to strike down those provisions.