

the State will implement all measures with respect to the control of the air pollutant concerned which *were contained* in the State implementation plan for the area before redesignation of the area as an attainment area.” *Id.* (emphasis added). This language suggests that Congress contemplated that RACT control measures would already be part of the SIP in the first place.

We therefore conclude that the EPA abused its discretion when it determined that it could redesignate the Cincinnati metropolitan area as achieving attainment before Ohio had fully adopted all of the RACT rules of Part D, Subpart 2, of the CAA. This result is compelled by the fact that the statutory language is unambiguous and because Congress clearly intended that actual provisions to require the implementation of RACT measures must be contained in SIPs submitted with respect to redesignation requests.

III. CONCLUSION

For all the reasons set forth above, we **VACATE** the EPA’s action in redesignating Cincinnati metropolitan area to attainment status for ground-level ozone, and **REMAND** for further proceedings consistent with this opinion.

UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

MARILYN WALL and MIKE
FREMONT,

Petitioners,

SIERRA CLUB,

Intervenor,

v.

UNITED STATES
ENVIRONMENTAL
PROTECTION AGENCY and
CHRISTINE WHITMAN,
Administrator, United States
Environmental Protection
Agency,

Respondents.

No. 00-4010

On Petition for Review of a Final Decision of
the Environmental Protection Agency.
No. 40 CFR Parts 52-81.

Argued: August 3, 2001

Decided and Filed: September 11, 2001

Before: CLAY and GILMAN, Circuit Judges; WISEMAN,
District Judge.

COUNSEL

ARGUED: David S. Baron, EARTHJUSTICE LEGAL DEFENSE FUND, Washington, D.C., for Petitioners and Intervenor. Melaine Aureilia Williams, UNITED STATES DEPARTMENT OF JUSTICE, ENVIRONMENTAL DEFENSE SECTION, Washington, D.C., for Respondents.

ON BRIEF: David S. Baron, EARTHJUSTICE LEGAL DEFENSE FUND, Washington, D.C., for Petitioners and Intervenor. Melaine Aureilia Williams, UNITED STATES DEPARTMENT OF JUSTICE, ENVIRONMENTAL DEFENSE SECTION, Washington, D.C., Kendra H. Sagoff, ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF GENERAL COUNSEL, Washington, D.C., for Respondents. Bryan F. Zima, OFFICE OF THE ATTORNEY GENERAL, Columbus, Ohio, for Amicus Curiae.

OPINION

RONALD LEE GILMAN, Circuit Judge. This appeal involves the review of a final decision by the United States Environmental Protection Agency (EPA) redesignating the status of the Cincinnati metropolitan area from “nonattainment” to “attainment” for ground-level ozone, and approving a clean air maintenance plan for the area. Marilyn Wall and Mike Fremont, residents of Ohio, filed suit to request that this court vacate the EPA’s decision. The Sierra Club, an organization with 3,500 members living in the Ohio area, intervened in support of Wall and Fremont. For the

* The Honorable Thomas A. Wiseman, Jr., United States District Judge for the Middle District of Tennessee, sitting by designation.

pointing out that: (1) emissions reductions from RACT measures are not presently needed for attainment and maintenance in Cincinnati, (2) upon redesignation, Ohio could halt the implementation of even fully approved RACT measures and move them into the contingency plans, and (3) the result of its action here is not much different than had it required the state to comply with the RACT requirement before redesignation.

These arguments are in addition to those formally promulgated by the EPA in the Federal Register to justify its departure from the standard policy requirements regarding the certification of attainment (see page 13 above, citing 65 Fed. Reg. at 3636). Although all of these justifications could well support its position if the statute on implementation of the RACT measures were ambiguous, they do not allow the EPA to take a position that conflicts with the clear intention of Congress to require actual provisions rather than optional contingency measures. *See Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 843 n.9 (1984) (“If a court, employing traditional tools of statutory construction, ascertains that Congress had an intention on the precise question at issue, that intention is the law and must be given effect.”).

Finally, the EPA argues that CAA § 175A(d) provides it with the authority to place the RACT measures on a list of contingency measures instead of requiring their adoption in a submitted SIP. This section requires that maintenance plans submitted for redesignation purposes must “contain such contingency provisions as the Administrator deems necessary to assure that the State will promptly correct any violation of the standard [ozone NAAQS] which occurs after the redesignation of the area as an attainment area.” *Id.*

But CAA § 175A does not provide the authority for a state to avoid the adoption of RACT control measures simply because it incorporates them as optional contingency provisions in its maintenance plan. CAA § 175A(d), in fact, further states that these measures must “include a requirement

given that Ohio's contingency plan includes the RACT measures among eleven other "contingency measures *to be considered* for implementation for the Ohio portion of the Cincinnati-Hamilton area." 65 Fed. Reg. at 3639 (emphasis added). So even if the contingency measures become triggered, there appears to be no requirement that the RACT measures be among those actually adopted. *See id.* The availability of RACT rules in Ohio's contingency provisions, therefore, does not satisfy the plain language of CAA § 182(b)(2).

Additional statutory and agency guidance language also contradicts the EPA's assertion that it can substitute contingency provisions for actual adoption of the RACT rules. CAA § 182(b)(2), for instance, requires that plan provisions "shall be submitted within the period set forth by the Administrator in issuing the relevant CTG document." In turn, each CTG document sets express timelines by which states must implement various RACT rules. *See, e.g.*, Control Techniques Guidelines Document; Addendum to Control Techniques Guidelines Document: Reactor Processes and Distillation Operations Processes, 59 Fed. Reg. 13,717 (Mar. 23, 1994) ("Any State which has not adopted an approvable RACT rule for the sources covered by this CTG must submit a RACT rule for these sources before March 23, 1995."). Moreover, a 1993 EPA guidance memorandum states that "*full adoption* of all of the statutorily-required programs, as well as a schedule and an enforcement commitment for an implementation date, are necessary for redesignation to attainment from nonattainment for ozone or CO if the redesignation request is submitted after the statutory due date of the program." Memorandum from Michael H. Shapiro, Acting Assistant Administrator for Air and Radiation, EPA, to eight directors of the EPA, at 6 (Sept. 17, 1993) (emphasis added).

The EPA, however, argues that it later modified its guidance memorandum when it approved the redesignation request for the Grand Rapids, Michigan area. It also claims support for the departure from policy in the present case by

reasons set forth below, we **VACATE** the EPA's action in redesignating the Cincinnati metropolitan area to attainment status for ground-level ozone, and **REMAND** for further proceedings consistent with this opinion.

I. BACKGROUND

A. Factual background

Ground-level ozone is a principal component of urban smog. *See* H.R. Rep. No. 101-490, at 198 (1990). As a highly reactive chemical, ozone can create severe health problems such as "chest pains, shortness of breath, coughing, nausea, throat irritation, and increased susceptibility to respiratory infections," even when inhaled by healthy adults. *Id.* at 199. It is also extremely corrosive, causing metals to rust and paints to crack and fade. *See id.*

Pollution sources do not emit ozone directly. Instead, its precursors — nitrogen oxides (NO_x) and volatile organic compounds (VOCs) — react to form ozone in the presence of sunlight. *See id.* at 202. These precursors, in turn, are emitted by sources such as motor vehicles, power plants, and industrial factories. Because ozone is often formed in large, stagnant air masses that drift from one region to another, air quality models are used to forecast the ozone levels that might result from a particular combination of precursor sources. *See Ohio v. EPA*, 784 F.2d 224, 228-29 (6th Cir. 1986).

B. Statutory and regulatory background

1. National ambient air quality standards

The 1970 Clean Air Act (CAA), 42 U.S.C. §§ 7401-7671q, as amended in 1977 and 1990, requires the EPA to establish national ambient air quality standards (NAAQS) for certain airborne pollutants, including ozone, as necessary to protect the public health and welfare. *See* CAA § 109, 42 U.S.C. § 7409. Under the CAA, the EPA designates the status of various geographic areas as "attainment," "nonattainment," or "unclassifiable," depending on whether the area meets the

NAAQS for a particular pollutant. *See* CAA § 107(d), 42 U.S.C. § 7407(d). More stringent air pollution control requirements apply to nonattainment areas than to attainment areas. *See* CAA §§ 171-86, 42 U.S.C. §§ 7501-15. Nonattainment areas for ozone are further classified as “marginal,” “moderate,” “serious,” “severe,” or “extreme,” depending on the severity and persistence of the ozone problem. *See* CAA § 181(a) & (b)(2), 42 U.S.C. § 7511(a) & (b)(2).

Responsibility for meeting the NAAQS rests with the states. Under the CAA, each state must draft a State Implementation Plan (SIP) containing specific pollution control measures for each pollutant. *See* CAA § 110, 42 U.S.C. § 7410. The CAA specifies different deadlines by which marginal, moderate, serious, severe, and extreme ozone nonattainment areas must attain the NAAQS, as well as the programs that each state must adopt in its SIP to achieve such attainment. *See* CAA §§ 172, 181, 42 U.S.C. §§ 7502, 7511. Areas with more severe classifications are given more time to reach attainment, but are required to implement more stringent control measures. *See* CAA §§ 181(a)(1), 182, 42 U.S.C. §§ 7511, 7511a.

The EPA must review each submitted SIP and either approve or disapprove the plan within one year after the agency has determined that the state completed its SIP submission. *See* CAA § 110(k)(2). If the EPA approves the SIP, either in whole or in part, then the approved provisions become federally enforceable. *See* CAA §§ 113, 304, 42 U.S.C. §§ 7413, 7604. But if the SIP is disapproved, then the state becomes subject to sanctions, *see* CAA § 179, 42 U.S.C. § 7509, as well as to federally imposed clean air measures. *See* CAA § 110(c).

as an optional measure in a contingency plan is no substitute for actual adoption. We agree.

The applicability of the transportation-conformity requirements, discussed in Part II. C. above, is in dispute, and the statute is ambiguous on their applicability to redesignation requests. In contrast, the applicability of the RACT rules to redesignation requests is not in dispute. Indeed, in the agency’s initial redesignation evaluation, the EPA agreed that its own policy “would require full adoption, submission and approval of [certain RACT rules] prior to approval of the redesignation request.” 65 Fed. Reg. at 3636. It further stated that “the requirement for these RACT rules *remains an applicable requirement* for purposes of evaluating the redesignation request since it predated the submission of the request.” *Id.* (emphasis added).

Moreover, the statutory language regarding the implementation of RACT rules is not ambiguous. The relevant language provides as follows: “The State shall submit a revision to the applicable implementation plan to include provisions to require the implementation of reasonably available control technology.” CAA § 182(b)(2). By this language, it is clear that Congress intended for SIPs submitted in redesignation requests to include “provisions to require the implementation of” RACT measures.

The EPA, however, claims that the statute does not speak to what constitutes an acceptable “provision.” Accordingly, the agency contends that we must defer to its interpretation of the statute as allowing RACT rules to be incorporated within a state’s contingency provisions rather than requiring them to be actually adopted and implemented.

A contingency provision, however, is not immediately effective. *See* Black’s Law Dictionary 315 (7th ed. 1999) (defining a contingency as, among other things, “[a]n event that may or may not occur; a possibility” and “[t]he condition of being dependent on chance; uncertainty”). Indeed, the RACT rules as utilized in Ohio are one additional step removed from even being required as contingency measures,

EPA has consistently applied the same interpretation regarding the applicability of transportation-conformity requirements in evaluating redesignation requests. *See, e.g.*, Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; Ohio, 61 Fed. Reg. 20,548 (May 7, 1996); Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; State of Wisconsin, 61 Fed. Reg. 43,668, 43,670 (Aug. 26, 1996).

As the Supreme Court observed in *Rust v. Sullivan*, 500 U.S. 173, 186-87 (1991), “a revised interpretation deserves deference because an initial agency interpretation is not instantly carved in stone and the agency, to engage in informed rulemaking, must consider varying interpretations and the wisdom of its policy on a continuing basis.” (Brackets and quotation marks omitted.) Moreover, the interpretation put forth in the 1995 Florida rulemaking does not conflict with the statute and, instead, “is a sufficiently rational one to preclude a court from substituting its judgment for that of EPA.” *Chem. Mfrs. Ass’n v. Natural Res. Def. Council, Inc.*, 470 U.S. 116, 125 (1985). We accordingly defer to the EPA’s determination that Kentucky’s failure to submit a revision to its SIP that meets the Part D transportation-conformity requirements is not a basis to deny the designation of the Cincinnati metropolitan area to attainment status.

D. Adoption of the reasonably available technology (RACT) rules

The petitioner’s final challenge is to the EPA’s authority to grant Kentucky’s and Ohio’s requests for redesignation when Ohio had not adopted all of the RACT rules provided in Part D, Subpart 2. Specifically, they point out that Ohio has not adopted all of the RACT rules for the VOC source categories covered by the CTG documents issued since 1990. They argue that under CAA § 182(b), Ohio is required to adopt the RACT rules in its SIP, and that the incorporation of the rules

2. Evaluation of whether an area has attained the ozone NAAQS

The EPA regulations that were promulgated in 1979 establish the applicable NAAQS for various pollutants and the methodology for determining whether an area has attained that standard. *See* 40 C.F.R. pt. 50. Two types of NAAQS are set forth in the regulations: (1) national primary ambient air quality standards, which “define levels of air quality which the Administrator judges are necessary, with an adequate margin of safety, to protect the public health,” and (2) national secondary ambient air quality standards, which “define levels of air quality which the Administrator judges necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.” 40 C.F.R. pt. 50.2(b).

Section 50.9(a) of the regulations sets the primary standard for ozone at a concentration of 0.12 parts per million. Under this section, the ozone “standard is attained when the expected number of days per calendar year with maximum hourly average ozone concentrations above 0.12 parts per million . . . is equal to or less than 1, as determined by appendix H.” 40 C.F.R. pt. 50.9(a). Appendix H, in turn, explains the methodology by which experimental results are converted into the expected number of days that the ozone standard would be exceeded. *See* 40 C.F.R. pt. 50, app. H. Because the methodology involves averaging a region’s results over a three-year period for each monitoring site in the region, an area will attain the NAAQS only if, over the three-year period, each of its monitoring sites record three or fewer times during which the ozone concentration has exceeded the NAAQS. *See id.*

3. Requirements for ozone nonattainment areas

Part D of Subchapter I of the CAA provides specific pollution control requirements that apply only to nonattainment areas. In general, a SIP for an ozone nonattainment area must include measures to ensure the timely attainment and maintenance of the standard. *See* CAA

§§ 110(a)(1) & (2)(A), 172(c), 182(b)(1). The SIP must also include provisions for the enforcement of the measures included in the SIP, *see* CAA § 110(a)(2)(C), as well as the commitment of adequate resources and legal authority to implement the enforcement measures. *See* CAA § 110(a)(2)(E)(i).

For a moderate ozone nonattainment area, a SIP must include the following specific measures: (1) pollution limits that reflect the “reasonably available control technology” (RACT) for existing factories that emit VOCs, *see* CAA §§ 172(c)(1), 182(b)(2), and (2) procedures to ensure that state and local transportation plans and projects conform to the clean air plans. *See* CAA § 176(c)(4)(A), 42 U.S.C. § 7506(c)(4)(A).

4. Requirements for the redesignation of an area from nonattainment to attainment

A state may request the EPA to redesignate an area from nonattainment to attainment status if that area has improved in air quality. *See* CAA § 107(d)(3)(D). After an area is so redesignated, it no longer need comply with the more stringent air pollution measures that apply only to nonattainment areas. *Cf.* CAA § 110(a)(2)(I) (requiring SIPs for nonattainment areas to meet the “applicable requirements of part D of this subchapter”). The responsibility, instead, is on the state to apply the enforcement provisions contained in its maintenance plan. *See* CAA § 175A(d), 42 U.S.C. § 7505a(d) (requiring maintenance plans that are submitted with redesignation requests to include “such contingency provisions as the Administrator deems necessary to assure that the State will promptly correct any violation of the standard which occurs after the redesignation of the area as an attainment area.”).

Five criteria must be met for an area to be redesignated from nonattainment to attainment status:

The EPA’s interpretation, in lieu of other guidance on this matter, is not unreasonable. Although “applicable” could be interpreted as limiting only the geographical area to which the statutory requirements must apply, it can also be interpreted as limiting the number of actual requirements within CAA § 110 and Part D that apply to a given area. The petitioners, however, contend that the interpretation put forth by the EPA in this rulemaking proceeding conflicts with the agency’s own General Preamble for the Implementation of Title I of the CAA Amendments of 1990. In this general preamble, the EPA stated that, as a prerequisite to designation, “[t]he State must show that the section 176 requirements of conformity have been met,” and that the “SIP conformity provisions must be consistent with EPA guidance.” 57 Fed. Reg. 13,498, 13,564 (Apr. 16, 1992).

The petitioners also cite the EPA’s Calcagni Memorandum, which provides: “If the State submits the redesignation request subsequent to EPA’s issuance of the conformity regulations, and the conformity requirement became applicable to the area prior to submission, the State must adopt the applicable conformity requirements before EPA can redesignate the area.” *Id.* at 6-7. This language, they argue, indicates that the agency itself has interpreted the transportation-conformity regulations as applying to redesignation requests.

But during a later rulemaking proceeding that complied with all notice and comment requirements, the EPA informed the public that it was reversing its earlier interpretation regarding the applicability of transportation-conformity requirements to redesignation requests, such that they would no longer be deemed applicable. *See* Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; State of Florida Change in National Policy Regarding Applicability of Conformity Requirements to Redesignation Requests, 60 Fed. Reg. 62,748, 62,750 (Dec. 7, 1995). In doing so, the EPA set forth the same two rationales that it gives in the case before us. Furthermore, after its 1995 rulemaking proceeding, the

transportation-conformity requirements are inapplicable to requests for redesignation.

In CAA § 107(d)(3)(E), Congress set forth the five criteria that must be met for an area to be redesignated from nonattainment to attainment status. Specifically, § 107(d)(3)(E)(v) states that the EPA must determine that “the State containing such area has met all requirements *applicable* to the area under section 7410 of this title and part D of this subchapter.” (Emphasis added.) The statute, however, does not describe how the EPA is to decide which Part D requirements are “applicable” in evaluating a redesignation request.

In this and other rulemaking proceedings, the EPA has interpreted the transportation-conformity requirements of Part D as inapplicable for the purposes of redesignation. Its general rationale is that requiring the submission of transportation-conformity rules at the redesignation request stage is unnecessary to ensure that the area will abide by the transportation-conformity provisions of Part D, because other requirements apart from CAA § 107(d)(3)(E)(v) are already in place to ensure that the area does so. The agency distinguishes the transportation-conformity requirements from the other requirements in CAA § 110 and Part D on the basis that the other requirements, unlike the transportation-conformity requirements, are linked to the nonattainment status of an area and thus need no longer be complied with upon redesignation to attainment status. Specifically, the EPA points out that: (1) Kentucky will still remain obligated to adopt the transportation-conformity rules even after redesignation, *see* CAA § 176(c)(1)(A) (applying transportation-conformity rules to all areas, without regard to attainment or nonattainment status), and would risk sanctions if it fails to do so, and (2) the federal transportation-conformity rules will still require Kentucky to perform transportation conformity analyses even in the absence of federally approved state rules. *See* § 176(c)(3) (providing that transportation conformity must be demonstrated “[u]ntil such time as the implementation plan revision . . . is approved”).

The Administrator may not promulgate a redesignation of a nonattainment area (or portion thereof) to attainment unless—

- (i) the Administrator determines that the area has attained the national ambient air quality standard;
- (ii) the Administrator has fully approved the applicable implementation plan for the area under section 7410(k) of this title;
- (iii) the Administrator determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan and applicable Federal air pollutant control regulations and other permanent and enforceable reductions;
- (iv) the Administrator has fully approved a maintenance plan for the area as meeting the requirements of section 7505a of this title; and
- (v) the State containing such area has met all requirements applicable to the area under section 7410 of this title and part D of this subchapter.

CAA § 107(d)(3)(E). At issue in the present case is whether the Cincinnati metropolitan area has met the second, fourth, and fifth criteria.

5. CAA Section 110: general enforceability requirements

To satisfy the second and the fifth redesignation criteria, the EPA must fully approve the applicable SIP in accordance with § 110 of the CAA. Section 110(k), which is codified at 42 U.S.C. § 7410(k) in the second redesignation criterion, sets forth the process by which the EPA must review a SIP submission. According to this section, the EPA is required to approve or disapprove a submitted SIP within one year after concluding that the SIP contains “the information necessary to enable the Administrator to determine whether the plan submission complies with the provisions of this chapter.” CAA § 110(k)(1)(A)&(2). A completed SIP submission, in

turn, can only be approved if it “meets all of the applicable requirements of this chapter.” CAA § 110(k)(3).

Subsection (a)(2) of § 110 sets forth the general requirements for a SIP. According to this subsection, a SIP must include “enforceable emission limitations and other control measures, means, or techniques,” CAA § 110(a)(2)(A), provisions for the “establishment and operation of appropriate devices” necessary to collect data on ambient air quality, CAA § 110(a)(2)(B), and programs to enforce the limitations. *See* CAA § 110(a)(2)(C).

6. CAA Section 175A: general maintenance requirements

A “maintenance plan” is required by CAA § 107(d)(3)(E)(iv) as a component of a state’s redesignation request. Such a plan must “provide for the maintenance of the [NAAQS] . . . for at least 10 years after the redesignation.” CAA § 175A(a). Maintenance is demonstrated by showing that future emissions will not exceed the level established in the attainment emissions inventory, which for ozone is 0.12 parts per million. *See* 40 C.F.R. pt. 50.9(a). An EPA memorandum states that any final determination regarding the adequacy of a maintenance plan will be made “in light of the particular circumstances facing the area proposed for redesignation and based on all relevant information available at the time.” Memorandum from John Calcagni, Director, Air Quality Management Division, EPA, Procedures for Processing Requests to Redesignate Areas to Attainment (Sept. 4, 1992) (Calcagni Memorandum).

The maintenance plan must also include enforcement provisions “as the Administrator deems necessary to assure that the State will promptly correct any violation of the standard which occurs after the redesignation of the area as an attainment area.” CAA § 175A(d). In particular, these contingency provisions must require the state to implement all of the ozone control measures that were already in the SIP prior to the time that the nonattainment area is redesignated to attainment. *See id.*

commitments, rather than “assum[ing] that the plan contains adequate enforcement and resource commitments based on inferences about plans from decades ago.”

We agree that a more contemporary commitment of resources and authority would allow the states to tailor their commitments specifically to the plans for which EPA approval is sought. But there is no language in the CAA or in the EPA’s regulations that specifically requires that a separate commitment be made within the maintenance plans themselves. Thus, the EPA permissibly determined that Kentucky and Ohio fulfilled the requirement of submitting “a program to provide for the enforcement of the [maintenance] measures” when such measures were already approved in their earlier SIPs. Moreover, this decision is in accord with the interpretation given to the CAA under the Calcagni Memorandum, advising that “an EPA action on a redesignation request does not mean that earlier issues with regard to the SIP will be reopened,” *id.* at 3, an interpretation that has been upheld by this court. *See Southwestern Pa. Growth Alliance v. Browner*, 144 F.3d 984, 989-90 (6th Cir. 1998) (upholding the decision of the EPA to redesignate the Cleveland-Akron-Lorain area as an attainment area for ozone even though the interstate transport provisions were contained in a prior Ohio SIP). Accordingly, we uphold the EPA’s approval of the clean air maintenance plans for the Cincinnati metropolitan area.

C. Applicability of the transportation-conformity requirements

The EPA acknowledges that Kentucky has failed to submit a revision of its SIP containing procedures that meet all of the transportation-conformity requirements of Part D, Subpart 1, of the CAA. What effect, if any, this failure has on the redesignation requests is the question before us. The petitioners contend that until Kentucky submits a revision that meets these transportation-conformity requirements, the EPA has no authority to redesignate the Cincinnati metropolitan area to attainment status. But the EPA argues that the

proceeding and that used in the Tier 2 proceeding, the EPA's decision to treat the Tier 2 findings as inapplicable to the present case "is a sufficiently rational one to preclude a court from substituting its judgment for that of EPA." *Chem. Mfrs. Ass'n v. Natural Res. Def. Council, Inc.*, 470 U.S. 116, 125 (1985). We therefore uphold the EPA's approval of the two states' clean air maintenance plans for the Cincinnati metropolitan area.

2. Commitment of enforcement resources and authority

The petitioners also contend that the EPA erred in approving the Cincinnati metropolitan area maintenance plans because the submitted plans lacked the required resource and authority commitments for enforcement. According to their argument, CAA § 110(a)(2)(C) requires that "[e]ach implementation plan . . . include a program to provide for the enforcement of the measures" described in the plan. They assert that the statute requires specific enforcement measures to be included in the maintenance plans that are submitted in requests for redesignation.

The petitioners further claim that the EPA erred in relying upon the resource and authority commitments contained in the original SIPs for Kentucky and Ohio. *See* Approval and Promulgation of Implementation Plans; Kentucky: Approval of 1979 Sulfur Dioxide Revisions, 45 Fed. Reg. 72,153 (Oct. 31, 1980) (promulgating the EPA's approval of Kentucky's SIP), and Approval and Promulgation of Implementation Plans; Ohio, 45 Fed. Reg. 72,122 (Oct. 31, 1980) (promulgating the EPA's approval of portions of Ohio's SIP, including the portions pertaining to the Cincinnati metropolitan area). As support for their argument, they cite the following federal regulation: "Each plan must include a description of the resources available to the State and local agencies *at the date of submission of the plan* and of *any additional resources needed to carry out the plan during the 5-year period following its submission.*" 40 C.F.R. § 51.280 (emphasis added in the petitioners' brief). This language, they argue, emphasizes the use of separate, up-to-date

7. Part D: requirements specifically pertaining to nonattainment areas

Part D of Subchapter I of the CAA provides specific requirements that a nonattainment area must meet in order to fulfill the fifth criterion for redesignation. There are two subparts at issue in Part D: Subpart 1, which sets forth the basic requirements applicable to all nonattainment areas, *see* CAA § 171-79A, and Subpart 2, which establishes additional specific requirements for areas classified as marginal, moderate, serious, severe, and extreme nonattainment areas. *See* CAA § 181-85B. As to the relationship between the two subparts, "[i]n some cases, the pollutant-specific requirements contained in subparts 2-5 of part D override subpart 1's general provisions." State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990, 57 Fed. Reg. 13,498, 13,501 (Apr. 16, 1992).

a. Subpart 1: transportation-conformity requirements

To address air pollution stemming from transportation sources, Congress enacted conformity requirements applicable to transportation plans and projects. These requirements, which are part of the 1990 CAA Amendments, provide that no federal agency shall "engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity which does not conform to [a SIP] after it has been approved or promulgated under section 7410 of this title." § 176(c)(1). "The determination of conformity shall be based on the most recent estimates of emissions . . ." CAA § 176(c)(1)(B).

Subpart 1 of Part D sets forth the actual transportation-conformity requirements for federal activities. An activity conforms to a SIP if the anticipated emissions from the activity will not frustrate a SIP's purpose of eliminating or reducing the severity and number of violations of the [NAAQS] and achieving expeditious attainment of such standards, cause or contribute to any new violation, exacerbate an existing violation, or delay the timely

attainment of the NAAQS or any other such milestones. *See* CAA § 176(c)(1)(A)&(B).

b. Subpart 2: reasonably available control technology (RACT) requirements

Subpart 2 of Part D requires a SIP for a nonattainment area to contain various RACT rules, depending upon the severity of the area's nonattainment. The RACT rules govern all forms of air pollution from sources other than transportation. For a marginal nonattainment area, a SIP is required to adopt a number of general RACT rules for existing VOC sources. *See* CAA § 182(a)(2)(A). A SIP for a moderate nonattainment area must not only comply with the requirements for marginal nonattainment areas, *see id.*, but must also adopt additional RACT rules for specific categories of VOC emissions. *See* CAA § 182(b)(2). Specifically, CAA § 182(b)(2)(A) provides as follows:

The State shall submit a revision to the applicable implementation plan to include provisions to require the implementation of reasonably available control technology under section 7502(c)(1) of this title with respect to . . . [e]ach category of VOC sources in the area covered by a [Control Technique Guideline] document issued by the Administrator between November 15, 1990, and the date of attainment.

The EPA has also set forth guidance on how it intends to interpret various provisions of the 1990 CAA Amendments in the general preamble to the amendments, 57 Fed. Reg. 13,498, 13,501 (Apr. 16, 1992), *supplemented at* 57 Fed. Reg. 18,070 (Apr. 28, 1992), and in various memoranda from its regional offices. In this general preamble, the EPA has directly addressed the requirements for redesignation. *See* 57 Fed. Reg. at 13,561-64.

demonstrated by showing that the future emissions of a pollutant's precursors will not exceed the level that allowed the area to achieve attainment in the first place.

The petitioners also point to findings made by the EPA in a separate rulemaking proceeding published on February 10, 2000 — the Tier 2 Motor Vehicle Emissions Standards and Gasoline Sulfur Control Requirements — that they allege contradict the findings made by the EPA in the present case. In the Tier 2 rulemaking proceeding, the EPA included the Cincinnati metropolitan area among those that are “certain or highly likely to require additional emission reductions.” 65 Fed. Reg. at 6709-10.

But the findings in the Tier 2 rulemaking proceeding, as the EPA explains, are not applicable here. The focus of the Tier 2 proceeding was not specifically to evaluate the attainment or nonattainment of the Cincinnati metropolitan area, but rather to develop a “major program designed to significantly reduce the emissions from new passenger cars and light trucks, including pickup trucks, vans, minivans, and sport-utility vehicles,” vehicles whose emissions contribute heavily to the generation of ground-level ozone. 65 Fed. Reg. at 6698.

Furthermore, the EPA relied upon more recent data in the present proceeding than in the Tier 2 proceeding. The EPA points out that the air quality data used in the Tier 2 rulemaking proceeding came from before 1999, and did not contain the 1999 data that was included in the Cincinnati metropolitan area redesignation request. Indeed, the EPA acknowledged the availability of the more recent air quality data for the Cincinnati metropolitan area in a separate Tier 2 rulemaking proposal that it published after promulgating the February 10, 2000 Tier 2 rule. *See* Control of Air Pollution From New Motor Vehicles: Proposed Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements, 65 Fed. Reg. 35,430, 35,441 (June 2, 2000).

Given the differences between the data used to generate the findings in the Cincinnati metropolitan area redesignation

appendix W of this part (Guideline on Air Quality Models).” This language, they contend, requires the EPA to use modeling to show that the Cincinnati metropolitan area will maintain the NAAQS. According to their interpretation of this language, the EPA’s reliance on the emissions-inventory approach (which does not involve modeling), does not meet the requirements of the CAA.

The EPA’s response is that the section of the Code of Federal Regulations relied upon by the petitioners applies only to “attainment demonstrations, and not to stand-alone maintenance plans submitted under CAA section 175A.” In its brief, the agency quotes 40 C.F.R. § 51.112(a), which provides that “[e]ach plan must demonstrate that the measures, rules and regulations contained in it are adequate to provide for the timely attainment and maintenance of the national standard that it implements.” The EPA also points out that the subsection contains no reference to CAA § 175A, the section of the CAA that specifically addresses maintenance plans. Indeed, the EPA’s own interpretive memorandum, published prior to the evaluation of the redesignation request in question, provides that a “State may generally demonstrate maintenance of the NAAQS by *either* showing that future emissions of a pollutant or its precursors will not exceed the level of the attainment inventory, *or* by modeling to show that the future mix of sources and emission rates will not cause a violation of the NAAQS.” Calcagni Memorandum, at 9 (emphasis added).

Although the petitioners’ interpretation of the relevant language is at least as reasonable as that of the EPA, the EPA’s construction is neither impermissible nor in conflict with a statutory mandate. The phrase “timely attainment *and* maintenance” could be interpreted as limiting the application of the section exclusively to situations in which the state must demonstrate both attainment and maintenance, rather than encompassing situations in which the state must demonstrate only continued maintenance. Moreover, the EPA’s actions are completely consistent with its own interpretive memorandum, which allows for NAAQS maintenance to be

C. The Cincinnati metropolitan area’s status as a nonattainment area

In 1978, the Cincinnati metropolitan area was designated as an ozone nonattainment area pursuant to the 1977 Amendments to the CAA. *See* Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; Ohio, 43 Fed. Reg. 8962 (Mar. 3, 1978). The Cincinnati metropolitan area covers counties in both Kentucky and Ohio, and is accordingly referred to as a “multi-State ozone nonattainment area.” § 182(j)(1). In the year after the 1990 CAA Amendments were passed, the EPA reaffirmed its designation of the area for moderate ozone nonattainment, with an attainment deadline of November 15, 1996. *See* Designation of Areas for Air Quality Planning Purposes, 56 Fed. Reg. 56,694 (Nov. 6, 1991).

Because of the area’s status, Kentucky and Ohio were required to submit revisions to their respective SIPs by no later than November 15, 1993, taking into account the measures applicable to moderate ozone areas and providing for the attainment of the ozone standard by the November 15, 1996 attainment deadline. *See* CAA § 182(b)(1)(A). Both states submitted timely revisions, but the EPA was unable to fully approve the submitted SIPs due to various deficiencies. *See* Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; Ohio and Kentucky, 65 Fed. Reg. 3630, 3633 (proposed Jan. 24, 2000).

The EPA never published a notice of disapproval pursuant to CAA § 110(k)(2) because, in November of 1994, Kentucky and Ohio submitted requests to redesignate the Cincinnati metropolitan area to ozone attainment status. The states based their requests on the fact that the area had not violated the ozone NAAQS over the previous three-year period. These redesignation requests, however, were eventually denied because the Cincinnati metropolitan area had experienced a violation of the ozone NAAQS in the summer of 1995. *See* Disapproval of the Request to Redesignate the Kentucky

portion of the Cincinnati-Northern Kentucky Moderate Ozone Nonattainment Area to Attainment and the Associated Maintenance Plan, 61 Fed. Reg. 50,718 (Sept. 27, 1996). Although Kentucky petitioned for a review of the Agency's determination, the agency's disapproval was upheld by this court in *Kentucky v. EPA*, No. 96-4274, 1998 WL 661138 (6th Cir. Sept. 2, 1998) (unpublished table opinion). The EPA, rather than publish a notice of disapproval, instead granted the area two one-year extensions. See Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; Ohio and Kentucky, 65 Fed. Reg. 37,879, 37,880 (June 19, 2000). These extensions are not challenged in the present case.

In 1999, Kentucky and Ohio again submitted requests to have the Cincinnati metropolitan area redesignated to attainment status. Their requests were based on three years of quality-assured ambient air quality monitoring data showing that the area was not in violation of the ozone NAAQS for the period from 1996 to 1998. The EPA also considered ozone-monitoring data showing that the Cincinnati metropolitan area continued to attain the ozone NAAQS in 1999. See 65 Fed. Reg. at 37,887-89. A notice proposing the approval of Kentucky's and Ohio's SIP submissions and redesignation requests was published on January 24, 2000. See 65 Fed. Reg. at 3630.

In publishing the notice, the EPA acknowledged that Kentucky did not have fully approved transportation-conformity requirements in its SIP for the Cincinnati metropolitan area. It determined, however, that the Part D transportation-conformity requirements were not applicable for the purposes of evaluating the redesignation requests "because areas are subject to the conformity requirements regardless of whether they are redesignated to attainment and must implement conformity under Federal rules if state rules are not yet approved." 65 Fed. Reg. at 3635.

The EPA also acknowledged that Ohio had not yet fully adopted the RACT rules concerning the categories of VOC

resource and authority commitments for enforcement. Because of the similarity of the first two arguments, they will be addressed together, while the third argument will be addressed separately.

1. Demonstration of maintenance

In evaluating Kentucky's and Ohio's maintenance plans, the EPA used an attainment-emissions inventory approach to determine that the states' plans would "provide for maintenance of the [NAAQS] for at least 10 years after redesignation," as required under CAA § 175A. This approach involves making two sets of determinations: (1) that the area is currently in compliance and (2) that future emissions in the area are projected to remain below the current level for the next ten years. The reasoning behind this approach is that an area is expected to remain in compliance so long as the predicted emissions within the area remain below the level that allowed the area to achieve compliance with the NAAQS in the first place.

In the present case, the EPA determined that the Cincinnati metropolitan area was in attainment for both the 1996 to 1998 and the 1997 to 1999 time periods. See 65 Fed. Reg. at 3630, 3638. The EPA also determined that future emissions in the area were projected to decrease from the 1996 levels. See *id.* Applying the attainment-emissions inventory approach, the agency concluded that the combination of these findings "shows that the current level of emissions is adequate to keep the area in attainment" for the next ten years. 65 Fed. Reg. at 37,888.

The petitioners, however, argue that the attainment-emissions inventory approach does not meet the requirements of the CAA. They challenge the EPA's authority to rely on methods other than air quality modeling to demonstrate maintenance when the demonstration of attainment is not also required. The petitioners point out that under 40 C.F.R. § 51.112(a)(1) (1999), the "adequacy of a control strategy shall be demonstrated by means of applicable air quality models, data bases, and other requirements specified in

see also *Southwestern Pa. Growth Alliance v. Browner*, 144 F.3d 984, 988 (6th Cir. 1998). The Supreme Court has established a two-step process for reviewing an agency's interpretation of a statute that it administers. See *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984). If "Congress has directly spoken to the precise question at issue," *id.* at 842, then this court "must give effect to the unambiguously expressed intent of Congress." *Id.* at 843. But "if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute." *Id.*

In evaluating whether the EPA's construction of a statute is permissible, a court "need not find that it is the only permissible construction that EPA might have adopted but only that EPA's understanding of this very complex statute is a sufficiently rational one to preclude a court from substituting its judgment for that of EPA." *Chem. Mfrs. Ass'n v. Natural Res. Def. Council, Inc.*, 470 U.S. 116, 125 (1985) (internal quotation marks omitted). This court, however, must also "reject administrative constructions . . . that are inconsistent with the statutory mandate," *Sec. Indus. Ass'n v. Bd. of Governors of the Fed. Reserve Sys.*, 468 U.S. 137, 143 (1984) (citations omitted), and conduct a "searching review" of the EPA's use of air quality projections under the CAA, *Ohio v. EPA*, 798 F.2d 880, 882 (6th Cir. 1986).

B. Approval of Kentucky's and Ohio's clean air maintenance plans

Wall, Fremont, and the Sierra Club raise three challenges to the EPA's evaluation of the clean air maintenance plans for the Cincinnati metropolitan area. They argue that (1) the methods used by the EPA to demonstrate maintenance do not meet the requirements of the CAA, (2) the EPA's own models, applied in a different rulemaking proceeding, demonstrate that the Cincinnati metropolitan area will not maintain compliance with the ozone NAAQS over the next ten years, and (3) the maintenance plans lack the required

sources covered by the Control Technique Guideline (CTG) document issued by the EPA between November 15, 1990 and the attainment date. These VOC source categories included the aerospace, synthetic organic compound manufacturing, reactor and distillations processes, shipbuilding, and wood furniture industries. See 65 Fed. Reg. at 3636. Despite its standard redesignation policy that "would require full adoption, submission and approval of [certain RACT rules] rules prior to approval of the redesignation request," *id.*, the EPA proposed to depart from this policy by approving Kentucky's and Ohio's redesignation request based on the following explanation found in the Federal Register:

Since the due date for the CTG RACT rules at issue preceded the submission of the redesignation request, EPA believes, however, that in the context of the particular circumstances of this redesignation, that it is permissible to depart from that policy and instead accept a commitment to implement these RACT rules as contingency measures in the maintenance plan rather than require full adoption and approval of the rules prior to approval of the redesignation. See Grand Rapids, Michigan, redesignation (61 FR 31831, June 21, 1996). . . . First, the RACT rules at issue in this redesignation were not needed to bring about attainment of the standard in Cincinnati. Second, Ohio has demonstrated continued maintenance of the ozone standard through 2010 without the implementation of these measures. Third, Ohio has placed other contingency measures in the maintenance plan that would bring about far greater emission reductions than the RACT rules and would therefore be substantially more effective in terms of correcting violations attributable to local emissions from the Cincinnati area that may occur after redesignation.

Id.

In their comments to the EPA's notice of proposed approval, Wall, Fremont, and the Sierra Club challenged the

EPA's justifications. *See* Letter from Marti Sinclair, Acting Chair of the Ohio Chapter of the Sierra Club, to J. Elmer Bortzer, Chief of the Regulation Development Section of the EPA (Feb. 18, 2000). They argued that Kentucky's and Ohio's maintenance plans, required under CAA § 175A, were deficient. To support their argument, the petitioners contended that the CAA requires that air quality models be used to determine a state's ability to achieve maintenance, which the EPA had not done. They also challenged the reliability of the EPA's assumptions regarding future emission levels, arguing that "[t]he history of this nonattainment area shows that EPA cannot rationally assume that emission levels correlate with ozone levels in some sort of linear or consistent fashion."

Moreover, the petitioners pointed out that the EPA had made contradictory findings in a separate rulemaking proceeding dealing with the adoption of more stringent national emission limits for new cars and trucks. *See* Control of Air Pollution from New Motor Vehicles: Tier 2 Motor Vehicle Emissions Standards and Gasoline Sulfur Control Requirements, 65 Fed. Reg. 6698 (Feb. 10, 2000). In this separate rulemaking proceeding, the EPA included the Cincinnati metropolitan area on a list of areas "certain or highly likely to require additional emission reductions in order to attain and maintain the 1-hour ozone NAAQS." 65 Fed. Reg. at 6709-10. This finding was based on computer models that showed that the Cincinnati metropolitan area would exceed the ozone NAAQS by 2007 if no additional emission reductions were made beyond those already expected. *See* 65 Fed. Reg. at 6707-11.

The petitioners also argued that the maintenance plans failed to comply with CAA § 110(c)(2)(E)(i) because the plans lacked "explicit commitments of legal authority and resources to implement" all of the plans' measures. In particular, the petitioners claimed that the maintenance plans lacked enforcement programs, as well as concrete assurances that Kentucky and Ohio would have the necessary personnel and funding to carry out the plans.

Their alternative argument was that the EPA had no authority to determine that the transportation-conformity requirements of Part D, Subpart 1, did not apply to the redesignation requests. According to the petitioners, "[t]he fact that the state is still obligated to submit [state transportation conformity] procedures and that federal conformity procedures still apply hardly excuses the state's failure to adopt such procedures as required by statute."

The final argument of the petitioners was that the EPA had no authority to redesignate the Cincinnati metropolitan area before the states had fully adopted all of the RACT rules of Part D, Subpart 2, that were specifically mandated under CAA § 182(b)(2). They claimed that the CAA did not allow the states to defer the adoption of RACT rules by incorporating them only as optional contingency measures. Furthermore, they reasoned that because of this deficiency in the adoption of the RACT rules, the EPA never fully approved the SIPs in accordance with CAA § 110(k).

Five months after the EPA published its notice of proposed approval, and after receiving public comments from the petitioners and other parties, the EPA made a final determination that the Cincinnati metropolitan area had attained the one-hour NAAQS for ground-level ozone and had met the other requirements for redesignation. The EPA accordingly issued a final ruling on June 19, 2000, to be effective July 5, 2000, granting Kentucky's and Ohio's redesignation requests. *See* Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; Ohio and Kentucky, 65 Fed. Reg. 37,879 (June 19, 2000). This timely petition for review followed.

II. ANALYSIS

A. Standard of review

A final action of the EPA will not be overturned unless the decision is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A);