

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued November 5, 1999 Decided June 16, 2000

No. 98-1526

Allied Local and Regional Manufacturers Caucus, et al.,
Petitioners

v.

U.S. Environmental Protection Agency,
Respondent

National Paint & Coatings Association, et al.,
Intervenors

Consolidated with
98-1527

On Petitions for Review of Orders of the
Environmental Protection Agency

C. Boyden Gray argued the cause for petitioner Dunn-
Edwards Corporation. With him on the briefs were James

R. Wrathall and IJay Palansky. Daniel H. Squire entered an appearance.

William M. Smiland argued the cause for petitioners Allied Local and Regional Manufacturers Caucus, et al. With him on the briefs were Christopher G. Foster and Albert M. Cohen.

Scott J. Jordan, Attorney, U.S. Department of Justice, argued the cause for respondent. With him on the brief were Lois J. Schiffer, Assistant Attorney General, and Geoffrey L. Wilcox, Attorney, U.S. Environmental Protection Agency. Eric G. Hostetler, Attorney, U.S. Department of Justice, entered an appearance.

Nancy S. Bryson, Richard J. Mannix, Robert L. Rhodes and Rena I. Steinzor were on the brief for intervenors. Thomas J. Graves entered an appearance.

Before: Ginsburg, Tatel, and Garland, Circuit Judges.

Opinion for the Court filed by Circuit Judge Garland.

Garland, Circuit Judge: Petitioners in these consolidated cases challenge final regulations promulgated by the Environmental Protection Agency (EPA) to limit the content of volatile organic compounds in architectural coatings, including paints. The regulations were issued pursuant to section 183(e) of the Clean Air Act, which directs the agency to regulate emissions from consumer and commercial products to help achieve the national ambient air quality standard for ozone. Petitioners are Dunn-Edwards Corporation, a large paint manufacturer, and Allied Local and Regional Manufacturers Caucus, an association of manufacturers and distributors of architectural coatings. Intervening on EPA's side are other industry groups--including the National Paint & Coatings Association, a trade association of some 400 paint and coatings manufacturers and distributors--which urge us to uphold the regulations.

Petitioners challenge the regulations on a multitude of grounds, including their asserted inconsistency with the Clean Air Act, the Regulatory Flexibility Act, the Unfunded Mandates Reform Act, and the Commerce Clause. We conclude

that EPA's regulations are lawful and deny the petitions for review.

I

The Clean Air Act, 42 U.S.C. ss 7401 et seq., directs EPA to establish national ambient air quality standards for harmful air pollutants. See 42 U.S.C. s 7408(a). One of the pollutants so identified and regulated by the agency is ground-level ozone. See 40 C.F.R. s 50.9. Although in the upper atmosphere ozone occurs naturally and forms a protective layer that shields human beings from the harmful effects of the sun's ultraviolet rays, at ground level, man-made ozone can have a wide array of negative effects on human health, crops, and forests.¹ See EPA, Study of Volatile Organic Compound Emissions From Consumer and Commercial Products, Report to Congress 1-1 (1995) (J.A. at 518) [hereinafter Report].

Section 183(e) of the Clean Air Act, added as part of the 1990 amendments to that Act, is aimed at mitigating the problem of ground-level ozone. See Clean Air Act Amend-

¹ Reporting on the Clean Air Act Amendments of 1990, the Senate Environment and Public Works Committee explained the impact of ground-level ozone on human health:

Ozone is fatal at high concentrations. At lower concentrations found in many urban areas in the United States, extensive research has shown that healthy adults and children begin to exhibit adverse health effects. These include chest pains, shortness of breath, coughing, nausea, throat irritation, and increased susceptibility to respiratory infections.

Potentially more troubling and less well understood are the effects of long-term chronic exposure to summertime ozone concentrations found in many cities. Regular out-of-doors work or play during the hot, sunny summer months in the more polluted cities may cause biochemical and structural changes in the lung, paving the way for chronic respiratory diseases.

S. Rep. No. 101-228, at 6 (1989); see also Consumer and Commercial Products: Schedule for Regulation, Final Listing, 63 Fed. Reg. 48,792, 48,793 (1998).

ments of 1990, Pub. L. No. 101-549, s 183(e), 104 Stat. 2399, 2444-47 (codified at 42 U.S.C. s 7511b(e)). Ozone is formed when nitrogen oxides (NOx) react with volatile organic compounds (VOCs) in the presence of sunlight. See Report at 1-1 (J.A. at 518). Section 183(e) directs EPA to regulate emissions of VOCs from consumer and commercial products in order to help states achieve the national ambient air quality standard (NAAQS) for ozone.²

Section 183(e) contains a number of directions to EPA. First, it instructs the agency to "conduct a study of the emissions of volatile organic compounds into the ambient air from consumer and commercial products (or any combination thereof)" in order to "(i) determine their potential to contribute to ozone levels which violate the national ambient air quality standard for ozone" and "(ii) establish criteria for regulating consumer and commercial products." 42 U.S.C. s 7511b(e)(2)(A). The section further directs that the study be completed, and a report submitted to Congress, "not later than 3 years after November 15, 1990." *Id.*

Upon submission of the report, section 183(e) requires the EPA to "list those categories of consumer or commercial products that [it] determines, based on the study, account for at least 80 percent of the VOC emissions, on a reactivity-adjusted basis, from consumer or commercial products in areas that violate the NAAQS for ozone." *Id.* s 7511b(e)(3)(A). The statute then directs the agency "to divide the list into 4 groups establishing priorities for regulation" based on the criteria developed in the study. *Id.* Finally, the statute requires the EPA to regulate one group every two years until all four have been regulated. See *id.*

After passage of the 1990 amendments, EPA instituted a formal regulatory negotiation process, aimed at achieving

² The statute defines a "consumer or commercial product" as "any substance, product (including paints, coatings, and solvents), or article (including any container or packaging) held by any person, the use, consumption, storage, disposal, destruction, or decomposition of which may result in the release of volatile organic compounds." 42 U.S.C. s 7511b(e)(1)(B).

consensus on the development of VOC regulations for paint and architectural coatings. Representatives of the affected industry were included on the negotiation committee. Complete consensus could not be reached, however, and the process was terminated in 1994. See National Volatile Organic Compound Emission Standards for Architectural Coatings, Final Rule, 63 Fed. Reg. 48,848, 48,850 (1998) [hereinafter Final Rule].

In March 1995, EPA submitted its statutorily-required report to Congress. The report concluded that "[c]onsumer and commercial products, while individually small sources of VOC emissions, contribute significantly to the ozone nonattainment problem." Report at 2-1 (J.A. at 523). VOC emissions from these products, the report said, constitute approximately 28% of all man-made VOC emissions. See *id.* at 2-8 (J.A. at 530). In compliance with Congress' direction, the report also set forth "criteria for regulating consumer and commercial products under the Act." *Id.* at 4-1 (J.A. at 557). The eight criteria listed by the agency were:

- (1) utility
- (2) commercial demand
- (3) health or safety functions
- (4) emissions of 'highly reactive' compounds
- (5) availability of alternatives
- (6) cost-effectiveness of controls
- (7) magnitude of annual VOC emissions
- (8) regulatory efficiency

Id. at 4-2 (J.A. at 558).³

In March 1995, EPA also published the statutorily-mandated list of categories of consumer or commercial products that together account for at least 80% of VOC emissions from such products in ozone nonattainment areas on a reactivity-adjusted basis. See Consumer and Commercial Products, Notice of Product Category List and Schedule for

³ The first six criteria were derived from five factors specified in the statute. See 42 U.S.C. s 7511b(e)(2)(B). The last two were added by the agency. See *infra* Part IV.E.

Regulation, 60 Fed. Reg. 15,264 (1995) [hereinafter Notice of Product Category List]. Per Congress' instruction, EPA divided those categories into four groups, establishing priorities for regulation. Architectural coatings were included in the first group, along with certain household consumer products and automobile refinish coatings. EPA determined that these three categories account for about 30% of the VOC emissions from all consumer and commercial products. See Consumer and Commercial Products: Schedule for Regulation, Final Listing, 60 Fed. Reg. 48,792, 48,793 (1998) [hereinafter Final Listing]. According to EPA, the architectural coatings category alone accounts for about 9% of the emissions from all consumer and commercial products, making it "one of the largest emissions sources among the consumer and commercial products categories." Final Rule, 63 Fed. Reg. at 48,850; see National Volatile Organic Compound Emission Standards for Architectural Coatings, Proposed Rule, 61 Fed. Reg. 32,729, 32,731 (1996) [hereinafter Proposed Rule]; Report at 2-6 (J.A. at 528).

In September 1998, EPA published its final rules and listing. As proposed, the agency listed architectural coatings, along with consumer products and automobile refinish coatings, in the first group of consumer and commercial product categories subject to regulation under section 183(e). See Final Listing, 63 Fed. Reg. at 48,792. At the same time, it issued a rule specifying limits on the permissible VOC content of products in each of the categories. See National Volatile Organic Compound Emission Standards for Automobile Coatings, 63 Fed. Reg. 48,806 (1998); National Volatile Organic Compound Emission Standards for Consumer Products, 63 Fed. Reg. 48,819 (1998); National Volatile Organic Compound Emission Standards for Architectural Coatings, 63 Fed. Reg. 48,848 (1998).

Petitioners Dunn-Edwards and Allied challenge EPA's initial study and report to Congress, as well as the list and rule that followed.⁴ They assert that EPA has misinterpreted the

⁴ Dunn-Edwards challenges EPA's decisions only insofar as they relate to architectural coatings. Although Allied's brief sug-

Clean Air Act and that its regulations are arbitrary and capricious. By contrast, intervenor National Paint & Coatings Association, which, like Allied, participated in the unsuccessful attempt at regulatory negotiation, supports EPA's regulations, describing them as a "comprehensive set of reasonable limits that are tough but fair, and which can contribute significantly to ozone emissions reductions as mandated by the [Act]." NPCA Br. at 2-3.

II

In assessing petitioners' claim that EPA has misconstrued the statute, we are guided by the standards set forth in *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 842-44 (1984). Under Chevron's first step, we 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. If "the statute is silent or ambiguous with respect to the specific issue," however, we move to Chevron's second step. *Id.* at 843. Under step two, we must defer to the agency's interpretation so long as it is "based on a permissible construction of the statute," *id.*, and is "reasonable in light of the Act's text, legislative history, and purpose," *Southern Cal. Edison Co. v. FERC*, 116 F.3d 507, 511 (D.C. Cir. 1997).

As petitioners note, we also have the power to set aside a final rule promulgated under the Clean Air Act if the rule is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 42 U.S.C. s 7607(d)(9)(A). To determine whether EPA's rules are "arbitrary and capricious," we apply the same standard of review under the Clean Air Act as we do under the Administrative Procedure Act (APA), 5 U.S.C. s 706(2)(A). See *Ethyl Corp. v. EPA*, 51 F.3d 1053, 1064 (D.C. Cir. 1995); *Chemical Mfrs. Ass'n v. EPA*, 28 F.3d 1259, 1263-64 (D.C. Cir. 1994). In that regard,

gested a challenge to the consumer products and automobile refin-
ish coatings rules as well, at oral argument counsel made clear that
Allied's attack on those rules is identical to its attack on the
architectural coatings rule. See Oral Arg. Tr. at 78-79.

we look for guidance to *Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Insurance*, 463 U.S. 29, 43 (1983). Under the standard set forth in that case, we must affirm the EPA's rules if the agency has considered the relevant factors and articulated a " 'rational connection between the facts found and the choice made.' " *Id.* at 43 (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)).

In the following parts, we apply these standards to petitioners' challenge to the architectural coatings rule and related EPA decisions.

III

Petitioners' principal argument is that the Clean Air Act requires EPA to regulate VOCs according to their "reactivity," and that EPA failed to do so. "Reactivity," as defined by petitioners, is " 'the amount of ozone formed per unit amount ... of VOC added [to a given atmospheric mixture].' " *Dunn-Edwards Br.* at 3 n.4 (quoting National Research Council, *Rethinking the Ozone Problem in Urban and Regional Air Pollution* 153 (1991) (J.A. at 165)) (alterations in original). In petitioners' view, EPA ignored reactivity and instead regulated VOCs according to their "mass"--i.e., according to the amount of VOCs contained in a product.

In this blunt form, petitioners' attack on the EPA is factually incorrect. As the EPA notes, it did "consider[] reactivity in prioritizing and selecting product categories to be listed for regulation." *Final Listing*, 63 Fed. Reg. at 48,795. It did so by using available reactivity data to divide VOCs into three groups: negligibly reactive, reactive, and highly reactive. See *id.*

EPA designated as negligibly reactive those compounds the data showed to have insignificant ozone-forming potential. See *id.* To make that designation, EPA relied on data derived from the "method now normally used for identifying negligibly reactive VOC," the so-called "kOH method." *Report* at 3-4 (J.A. at 549). "kOH reactivity data," the agency said, "have been obtained or estimated for nearly all VOC

species of interest." Id. at 3-5 (J.A. at 550); see also id. at 3-4 (J.A. at 549) (describing kOH method). Compounds determined to be negligibly reactive on the basis of that data were excluded altogether from the VOC emissions inventory and from the related regulations. See Final Listing, 63 Fed. Reg. at 48,795.5

To differentiate between the remaining reactive VOCs, EPA included data derived from the "Incremental Reactivity" method, a method "more appropriate for rating reactive VOC." Report at 3-4 (J.A. at 549). EPA used this data to identify ten classes of VOCs that are highly reactive under most conditions. See Final Listing, 63 Fed. Reg. at 48,795-96. The agency then identified the product categories known to contain these highly reactive compounds, and estimated the quantity of highly reactive compounds emitted by those product categories. See id. at 48,796. Finally, EPA adjusted the mass emissions figures for those product categories by applying a reactivity adjustment factor to the mass emissions of their highly reactive VOCs. See id.

Petitioners recognize that EPA did, at least in this tripartite categorical form, regulate according to reactivity. Their contention is that this is not enough. Rather, petitioners urge that the statute requires EPA to determine the reactivity of each individual VOC species, and to use each VOC's relative reactivity in promulgating the final regulations. Petitioners' argument is based on their analysis of three provisions of the Clean Air Act.

A

Section 183(e) of the Clean Air Act directs EPA "to conduct a study of the emissions of volatile organic compounds into the ambient air from consumer and commercial products (or any combination thereof) in order to--(i) determine their potential to contribute to ozone levels which violate the national ambient air quality standard for ozone...." 42

⁵ EPA labeled a compound negligibly reactive if its kOH value was lower than that of ethane. See Report at 3-5 (J.A. at 550).

U.S.C. s 7511b(e)(2)(A). Petitioners contend that the phrase "potential to contribute" as used in this provision is synonymous with the term "reactivity."

Accepting petitioners' contention that the Clean Air Act requires a determination of reactivity, however, does not resolve the question of whether reactivity must be determined on an individual VOC-by-VOC, rather than categorical, basis. Allied contends that the above-quoted provision requires EPA to determine the reactivity of "each" volatile compound. See Allied Br. at 14. Had Congress used the word "each" in the statute, the first step of the Chevron test might well dictate victory for Allied. But Congress did not use that word. Instead, it directed EPA to study emissions of volatile organic compounds "from consumer and commercial products (or any combination thereof) in order to ... determine their potential to contribute to ozone levels." 42 U.S.C. s 7511b(e)(2)(a) (emphasis added). The express reference to "any combination thereof," and the direction to determine "their potential" rather than "each's potential" (or even, "their potentials"), renders it impossible to regard the statute as unambiguously expressing an intent that each VOC be analyzed individually. To the contrary, and moving to the second step of the Chevron test, these references support the reasonableness of EPA's contention that Congress authorized the agency to proceed on a category-by-category basis.

EPA's reading of the statute is further supported by the provision requiring EPA to complete its study and submit its report within three years. See *id.* Relatively little data is currently available on the comparative reactivity of individual VOC species. See Report at 2-10, 3-5 (J.A. at 532, 550) (noting that Incremental Reactivity data is only available for "some 328 VOC species or groups of species"). According to EPA's figures, not seriously contested by petitioners, a detailed reactivity study of a single VOC species would take two months to accomplish. See EPA, Response to Comments on Section 183(e) Study and Report to Congress 2-75 (1998) (J.A. at 740) [hereinafter Response to Comments]. As "there are approximately 1,000 different VOC species associated with the architectural coating industry alone," *id.*, EPA esti-

mates that a truly species-specific analysis of reactivities would require 166 years of testing. Accordingly, EPA reasonably concluded that in light of the three-year statutory timetable, Congress could not have expected it to proceed on a species-specific basis.

In reply to this argument, Dunn-Edwards suggests that EPA could have streamlined the task by confining its analysis to the smaller universe of those VOCs most commonly found in architectural coatings. "EPA need not," Dunn-Edwards says, "have determined the reactivity of every VOC." Dunn-Edwards Reply Br. at 6. Instead, a "reactivity-based regulation could be implemented using information on only the three VOCs accounting for almost all emissions from waterborne architectural coatings and the eight VOCs accounting for almost 80% of emissions from solventborne architectural coatings." *Id.* at 6. Individual analyses of just those eleven, Dunn-Edwards argues, could readily have been completed within the statutory timetable.

This reply has two problems. First, Congress directed EPA to study and regulate the VOC emissions from all "consumer or commercial products," not only from architectural coatings. While the streamlined approach Dunn-Edwards suggests might accomplish the task for the product category of principal concern to petitioner, that does not answer EPA's contention that the agency would still have been unable to meet the statutory deadline across the board.

Moreover, and more important, in making this suggestion Dunn-Edwards effectively abandons the purity of the argument it predicated on Chevron step one. By contending that EPA could have accomplished its task within the time available by studying only eleven of the VOCs contained in architectural coatings, Dunn-Edwards must accept that the statute does not require a separate evaluation of each VOC's individual reactivity. And if the statutory language permits the agency to regulate by analyzing only the eleven most significant VOCs, it is hard to see why it bars EPA from instead taking the analytical approach it preferred: excluding from regulation those VOCs with negligible reactivity, giving

regulatory priority to product categories containing the ten classes of most highly reactive VOCs, and regulating the balance of reactive compounds according to the mass of their emissions. It may be, as petitioners contend, that theirs is the better approach; but that is not a question for this court. Under Chevron, we are bound to uphold agency interpretations as long as they are reasonable--"regardless whether there may be other reasonable, or even more reasonable, views." *Serono Lab., Inc. v. Shalala*, 158 F.3d 1313, 1321 (D.C. Cir. 1998).

Finally, Dunn-Edwards implicitly suggests that EPA was unfaithful to section 183(e)(2)(A) because, rather than "determine [VOCs'] potential to contribute to ozone levels" by doing its own testing, the agency relied on a review of the existing scientific literature. See Dunn-Edwards Br. at 12. But nothing in section 183(e) declares that the only way to "determine" potential is through the agency's own studies--something Congress did demand in other sections of the Clean Air Act. See, e.g., 42 U.S.C. s 7511f (directing EPA to study the role of ozone precursors in tropospheric ozone formation, and commanding that the "Administrator shall utilize all available information and studies, as well as develop additional information, in conducting the study required by this section") (emphasis added). Nor is there anything unreasonable about the agency's conclusion that it could "determine" VOCs' potential to contribute by examining data in the existing literature. To the contrary, "EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem. We generally defer to an agency's decision to proceed on the basis of imperfect scientific information, rather than to 'invest the resources to conduct the perfect study.'" *Sierra Club v. EPA*, 167 F.3d 658, 662 (D.C. Cir. 1999) (quoting *American Iron & Steel Inst. v. EPA*, 115 F.3d 979, 1004 (D.C. Cir. 1997)).

B

As a second source of statutory support for their argument that the Clean Air Act requires a VOC-specific approach,

petitioners note that in establishing "criteria for regulating consumer and commercial products," Congress directed EPA to take into consideration "[t]hose consumer and commercial products which emit highly reactive volatile organic compounds into the ambient air." 42 U.S.C. s 7511b(e)(2)(B)(iii). But EPA expressly complied with this congressional command, adopting as one of its criteria "emissions of highly reactive compounds." See Report at 4-6 (J.A. at 562). As noted above, the agency implemented this criterion by identifying ten classes of VOCs as "highly reactive," and using that classification to give priority to consumer and commercial products that emitted those highly reactive compounds. See Final Listing, 63 Fed. Reg. at 48,796. Accordingly, this statutory citation does not add to the weight of petitioners' challenge.

C

Finally, petitioners note that section 183(e)(3)(A) requires EPA to "list those categories of consumer or commercial products" that "account for at least 80 percent of the VOC emissions, on a reactivity-adjusted basis, from consumer or commercial products in areas that violate the NAAQS for ozone." 42 U.S.C. s 7511b(e)(3)(A). EPA is then directed to "divide the list into 4 groups establishing priorities for regulation," and to regulate one group every two years until all have been regulated. *Id.*

To comply with these requirements, EPA first used the methodology we have described above: it divided VOCs into three sets, exempting those with negligible reactivity and applying an (upward) reactivity adjustment factor to the mass emissions of products with highly reactive ingredients. After ranking product categories based on eight regulatory criteria, see *supra* Part I, EPA developed the required list of regulated categories by starting with the highest ranked category and proceeding through successive categories until the list accounted for 80% of the emissions, adjusted for reactivity. See Final Listing, 63 Fed. Reg. at 48,796. The agency identified architectural coatings as "one of the largest sources

of VOC emissions among categories of consumer and commercial products," id. at 48,797, and therefore included it within the first group of regulated categories.

Because EPA did not evaluate each VOC's individual reactivity, petitioners contend that "products containing less-reactive compounds were included in an early group when, instead, they should have been exempted or regulated, if at all, in later stages." Allied Br. at 20. Petitioners argue that these two possibilities--that some compounds were regulated that should have been exempted, and that architectural coatings as a category were given priority regulation when they should have been regulated in one of the later groups--render EPA's methodology inconsistent with the statute's command to account for VOC emissions "on a reactivity-adjusted basis." We disagree.

First, the possibility that some compounds that were regulated should not have been regulated at all is not likely enough to undermine EPA's methodology. As explained above, EPA expressly exempted from regulation those compounds determined to have negligible reactivity. Moreover, pre-existing EPA regulations allow companies to apply to have a compound excluded from the definition of VOC, and thereby exempted from regulation, based on evidence that it is negligibly reactive. See Final Listing, 63 Fed. Reg. at 48,798 (citing 40 C.F.R. s 51.100(s)). Working with industry, EPA has exempted more than 100 VOC species (42 compounds and 2 classes of compounds) under this provision. See Response to Comments at 2-90 (J.A. at 755); Final Listing, 63 Fed. Reg. at 48,798. Since data necessary to determine negligible reactivity are available for "nearly all VOC species of interest," Report at 3-5 (J.A. at 550), and since even petitioners concede that all VOCs have some potential to contribute to ozone formation, see Oral Arg. Tr. at 27; see also Final Listing, 63 Fed. Reg. at 48,797, petitioners' challenge does not cast doubt on EPA's regulatory process.

Nor is the second possibility, that in a perfect regulatory world architectural coatings would not be in the first group of

regulated products, of great moment in evaluating the reasonableness of EPA's method of regulation. There is no serious argument that architectural coatings would not appear somewhere on even a perfect regulatory list, given their status as one of the largest sources of VOC emissions among consumer and commercial products. Indeed, section 183(e) directs the EPA to list those categories of consumer or commercial products that account for "at least" 80% of VOC emissions on a reactivity-adjusted basis--implying that it could list categories accounting for 100% of such emissions. As to exactly where on that list architectural coatings should have ranked, we can only say what we have repeatedly said before: An "agency is entitled to the highest deference in deciding priorities among issues, including the sequence and grouping in which it tackles them." *Associated Gas Distribs. v. FERC*, 824 F.2d 981, 1039 (D.C. Cir. 1987); see *Sierra Club v. Thomas*, 828 F.2d 783, 797 (D.C. Cir. 1987). Moreover, we must be particularly deferential in a case like this, where Congress--by instructing EPA to set priorities using multiple, nondeterminative criteria⁶--has necessarily indicated an intention to delegate substantial discretion to the agency.

In sum, we conclude that nothing in the Clean Air Act unambiguously requires the EPA to analyze the reactivity of each VOC on an individual basis, and that EPA's more categorical approach is a reasonable interpretation of the reactivity-related requirements of the Act. Accordingly, the architectural coatings rule survives review under the standard set by the Supreme Court in *Chevron*.

D

Petitioners contend that even if the Clean Air Act does not require EPA, as a matter of statutory construction, to regulate VOCs based on an analysis of their relative individual reactivities, the agency must nonetheless do so to avoid

⁶ Congress directed EPA to establish regulatory priorities based on criteria which "take into consideration" at least five listed factors. 42 U.S.C. s 7511b(e)(2)(B); see also *supra* note 3; *infra* Part IV.E.

regulating in an arbitrary and capricious fashion. As petitioners note, EPA's own report conceded that: "[t]o be the most effective, ozone control strategies ideally should be based not only on mass VOC and NO_x emissions but should consider the relative photochemical reactivity of individual species." Report at 2-1 (J.A. at 523); see also Notice of Product Category List, 60 Fed. Reg. at 15,266. The key words in the quoted sentence, however, are "to be the most effective" and "ideally." Indeed, in the sentence following the one just quoted, EPA went on to state:

Reactivity data on VOC, especially those compounds used to formulate consumer and commercial products, is extremely limited. Better data, which can be obtained only at great expense, is needed if the EPA is to consider relative photochemical reactivity in any VOC control strategy. In the meantime, a practical approach is to act on the basis of mass VOC emissions.

Report at 2-1 (J.A. at 523). In short, the agency concluded that the methodology it adopted, and which we have described above, was the "most appropriate way to meet the statutory requirements, given the limitations and uncertainties surrounding the reactivity issue." Report at 3-10 (J.A. at 555).

Our role, of course, is to determine neither whether EPA's approach was "ideal," nor whether it was the "most appropriate," but only whether it was reasonable. See *Ethyl Corp. v. EPA*, 541 F.2d 1, 36 (D.C. Cir. 1976) (en banc) ("We must look at the decision not as the chemist, biologist or statistician that we are qualified neither by training nor experience to be, but as a reviewing court exercising our narrowly defined duty of holding agencies to certain minimal standards of rationality."); see also *State Farm*, 463 U.S. at 43. For the reasons discussed in Part III.A-C above, we conclude that it was. See *Animal Legal Defense Fund, Inc. v. Glickman*, 204 F.3d 229, 234 (D.C. Cir. 2000) (noting overlap between analysis under *Chevron* and *State Farm*). We agree with the agency that its general reliance on the mass of VOC emissions, coupled with the exemption for those VOCs known to be

negligibly reactive and the upward adjustment for those known to be highly reactive, constitutes a reasonable approach given both "the uncertainties and inconsistencies of reactivity," Report at 2-10 (J.A. at 532), and "Congress's direction that the EPA complete the study within three years," Final Listing, 63 Fed. Reg. at 48,796. In reaching this conclusion, "[o]ur 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." *Appalachian Power Co. v. EPA*, 135 F.3d 791, 801-02 (D.C. Cir. 1998).

IV

In this Part, we consider a number of additional, miscellaneous charges leveled by petitioners against the architectural coatings rule. Some raise questions of statutory interpretation under the Clean Air Act, some charge EPA with arbitrary and capricious decisionmaking under that Act, and some involve a combination of the two.

A

Dunn-Edwards attacks the EPA study for "fail[ing] to address the beneficial environmental and health effects of the negative reactivity" of some VOCs. *Dunn-Edwards Br.* at 12. There is evidence, the company contends, showing that the emissions of certain types of VOCs actually reduce ozone levels. The agency's failure to consider the positive health effects of a restricted pollutant, Dunn-Edwards continues, constitutes both a violation of the Clean Air Act and unreasonable agency action. See *Dunn-Edwards Br.* at 13 (citing *American Trucking Ass'n v. EPA*, 175 F.3d 1027, 1051 (D.C. Cir. 1999), cert. granted, 68 U.S.L.W. 3496 (U.S. May 22, 2000)).

The answer to this challenge is that EPA did consider the possible effects of negative reactivity. See *Response to Comments* at 2-92 to 2-95 (J.A. at 757-760). It concluded, however, that the phenomenon was too rare and unpredictable to warrant changes in the regulatory structure. See *id.* at 2-92 to 2-93 (J.A. at 757-58) (concluding that "reduction of

ozone by VOC occurs in very limited circumstances"). Negative reactivity, the agency determined, occurs "only in very limited cases, with only a few species of VOC (not VOC species typically used in consumer and commercial products), and under specific meteorological conditions." *Id.* at 2-154 (J.A. at 802). Studies offered by petitioners were not to the contrary. See, e.g., J.A. at 985-86 (study describing "slightly negative values" for two compounds in one-hour test in Los Angeles, but noting that all compounds tested there showed positive values in eight-hour tests). Because EPA reasonably considered, and discounted, the phenomenon of negative reactivity, we reject this challenge.

B

In a related attack, Dunn-Edwards contends that EPA's rule may also be counterproductive because it "has the potential to increase ozone levels in two ways." Dunn-Edwards *Br.* at 21. First, because the rule imposes limits on the mass of VOCs in a product, rather than on the type (reactivity) of the VOCs, it "allows for the possibility" that producers of architectural coatings may substitute more reactive VOCs for less reactive ones. *Id.* Although the reformulated products would then emit a smaller quantity of VOCs as measured by mass, they would generate more ozone over all. Second, Dunn-Edwards warns, "if performance is compromised" by reducing the VOC content of architectural coatings, the overall volume of such products used to attain the same results will increase--in the form of more coats, more touch-ups, and more frequent recoating. *Id.*

As the quoted portions of petitioner's argument suggests, it is framed more as a series of theoretical possibilities than of fact-based predictions. Petitioners offer no evidence at all that the VOC substitution they fear will occur. EPA's own view is that even if such substitution did occur, the benefit from reducing the total mass of VOC emissions would outweigh any differences in relative reactivities of different compounds. See EPA, National Volatile Organic Compound Emission Standards for Architectural Coatings, Background

for Promulgated Standards 2-297 (1998) (J.A. at 437) [hereinafter Background]. In the absence of contrary evidence, it is to the expert agency's prediction, rather than to the petitioner's, that we must defer. See *Her Majesty the Queen in Right of Ontario v. EPA*, 912 F.2d 1525, 1534 (D.C. Cir. 1990); *New York v. EPA*, 852 F.2d 574, 580 (D.C. Cir. 1988).

EPA also found "no evidence or documentation to support the[] claims [that] increased thinning, more priming, more topcoating, and more frequent painting" would result if the VOC content of architectural coatings were reduced. Background at 2-293 (J.A. at 433). To the contrary, the agency cited evidence that low VOC content coatings perform well and do not require additional coats to achieve the same results as those with high VOC content. See Background at 2-293 to 2-297 (J.A. at 433-37); Proposed Rule, 61 Fed. Reg. at 32,738; see also Final Rule, 63 Fed. Reg. at 48,869 (finding "no link between product quality and VOC content since quality, high-performing products are available in a wide range of VOC content levels in many product categories"). In reply, Dunn-Edwards cites a California survey indicating that between 1980 and 1990, total VOC emissions from architectural coatings increased by 16%, notwithstanding that the VOC content of such coatings decreased by 37% during the same period. See Dunn-Edwards Reply Br. at 10. Poorer performance by the reduced VOC paint "may be responsible," Dunn-Edwards asserts. *Id.* And it may be that Dunn-Edwards is right. But without evidence of cause-and-effect, we cannot know. Dunn-Edwards offers no evidence that the increase in VOC emissions during the 1980s was due to the poorer performance of the paints, rather than to the cause suggested by the EPA: an increase in the volume of paints used during that time, spurred by growth in the population, an improved economy, and an increase in construction.

C

The architectural coatings rule regulates the manufacture and sale of coating products nationwide. Allied contends that this exceeds EPA's authority, which it asserts is limited to

regulating manufacture and sale within "nonattainment" areas. A nonattainment area is one that either does not meet the national primary or secondary ambient air quality standard for ozone, or that contributes to ozone levels in a nearby area that does not meet the standard. See 42 U.S.C. s 7407(d). Allied's contention principally relies on two subsections of section 183(e). First, subsection (2)(A) requires EPA to study VOC emissions in order to determine their potential "to contribute to ozone levels which violate the national ambient air quality standard for ozone." Id. s 7511b(e)(2)(A)(i). Second, subsection (3)(A) requires the EPA to list, and then to regulate, those categories of products that "account for at least 80 percent of the VOC emissions ... from consumer or commercial products in areas that violate the NAAQS for ozone." Id. s 7511b(e)(3)(A).

Neither of these provisions says anything about where the regulated product itself must be manufactured or sold, or about the geographic scope of EPA's regulatory authority. Rather, the first directs EPA to consider the potential of emissions to contribute to ozone levels that violate the NAAQS; the second instructs it to regulate categories of products that account for a specified percentage of emissions in nonattainment areas. As EPA concludes, this language permits the agency to regulate nationwide in order to accomplish emissions reduction in nonattainment areas.

EPA's reading is bolstered by consideration of other provisions in the same section. For example, subsection (3)(A) also states that "[i]n order to carry out this section, the Administrator may, by regulation, control or prohibit any activity, including the manufacture or introduction into commerce, offering for sale, or sale of any consumer or commercial product." Id. s 7511b(e)(3)(A) (emphasis added); see also id. s 7511b(e)(4) ("The regulations under this subsection may include any system or systems of regulation as the Administrator may deem appropriate."). Similarly, subsection (1)(C) defines "regulated entities" as manufacturers and distributors of consumer or commercial products for sale in interstate commerce "in the United States," without geographic limitation. Id. s 7511b(e)(1)(C)(i). Thus, although

Congress did direct EPA to regulate VOCs in order to improve conditions within nonattainment areas, nothing in the statute limits its ability to regulate the manufacture and sale of VOCs outside such areas if such regulation is reasonably related to that end.⁷

EPA readily persuades us that nationwide regulation is reasonably related to the statutory objective. First, architectural coating products are widely distributed and easily transportable across area boundaries. See Final Listing, 63 Fed. Reg. at 48,804. End-users (e.g., commercial painters) themselves may well utilize these products in different locations from day to day. See id.⁸ Accordingly, as EPA reasoned, a national rule is necessary to "preempt opportunities for end-users to purchase such consumer and commercial products in attainment areas and then use them in nonattainment areas, thereby circumventing the regulations and undermining the decrease in VOC emissions in nonattainment areas." Final Listing, 63 Fed. Reg. at 48,804.

Second, just as coating products are easily transportable, so too are the VOCs they release and the ozone the VOCs

⁷ For that reason, section 183(e) is different from Clean Air Act section 165(a), which we considered in *Alabama Power Co. v. Costle*, 636 F.2d 323 (D.C. Cir. 1979). The latter section expressly limits EPA's permit authority to facilities "constructed in any area to which [Part C] applies," 42 U.S.C. s 7475(a) (emphasis added). See *Alabama Power*, 636 F.3d at 365. Section 183(e) does not contain an analogous limitation.

⁸ As the National Paint & Coatings Association wrote in its intervening brief in support of the EPA:

A manufacturer or distributor, whether big or small, that sells an architectural coatings product can never be sure where that product will end up being used. For example, a small manufacturer in Maryland who manufactures his paint solely in Maryland and sells his paint to contractors only in Maryland may have his paint used in Washington, D.C. one day, Virginia the next day, West Virginia the next day, and finally used to paint a weekend beach house in Delaware the next day.

NPCA Br. at 24.

create. Ambient VOCs and ozone do not obey geographic boundaries and can flow freely between attainment and non-attainment areas. See Final Listing, 63 Fed. Reg. at 48,804; see also *Virginia v. EPA*, 108 F.3d 1397, 1400 (D.C. Cir. 1997). Thus, EPA reasonably concluded that "emissions in attainment areas can contribute to nonattainment in adjoining nonattainment areas," and that a nationwide rule is therefore consistent with its statutory mandate. Final Listing, 63 Fed. Reg. at 48,803.

D

Dunn-Edwards contends that because section 183(e) requires a study of "emissions of volatile organic compounds into the ambient air," 42 U.S.C. s 7511b(e)(2)(A), EPA violated its directive by focusing its study and rule on VOC content rather than emissions. That focus, petitioner suggests, assumes without foundation that all VOCs contained in a coating will be emitted into the ambient air. But EPA did not assume that all of a product's VOCs would be emitted. Rather, it employed a test to determine the mass of solvents that would volatilize, and limited its calculation of VOC content to the latter alone.⁹

Dunn-Edwards also contends that even when VOCs are emitted from a product, they may not become "available" in the atmosphere to form ozone--for example, because they may be emitted indoors rather than outside. EPA considered

⁹ In EPA's test, the paint sample is weighed, heated, and reweighed. VOC content is calculated as the difference in the two weights, after also subtracting the weight of water and any exempt compounds. Hence, solvents that do not volatilize under the test conditions are not measured as VOC. See Response to Comments at 2-56 (J.A. at 723). In a footnote, Dunn-Edwards contends that because paints are not heated when applied, this test "does not bear the necessary relationship to actual conditions in which coatings are used." Dunn-Edwards Br. at 16 n.16 (citing *Chemical Mfrs. Ass'n v. EPA*, 28 F.3d 1259, 1264 (D.C. Cir. 1994)). EPA's rejoinder is that heating simply accelerates the emissions of VOC, but does not increase total emissions over time. In the absence of contrary evidence, we defer to the agency's expert opinion.

this assertion during the rulemaking, and responded by pointing to recent studies suggesting that "close to 100 percent of the VOC from paint is eventually emitted into the ambient air." Response to Comments at 2-64 (J.A. at 729). Because this conclusion is supported by substantial evidence, the agency's decision to control VOC emissions through the regulation of VOC content is reasonable.¹⁰

E

Section 183(e) directs EPA to take into consideration five factors in establishing criteria for regulating consumer and commercial products, as well as in establishing regulatory priorities among those products. See 42 U.S.C. s 7511b(e)(2)(B), (e)(3)(A). Allied contends that EPA erred by failing to consider the last three factors listed in the statute:

(iii) Those consumer and commercial products which emit highly reactive volatile organic compounds into the ambient air.

(iv) Those consumer and commercial products which are subject to the most cost-effective controls.

(v) The availability of alternatives (if any) to such consumer and commercial products which are of comparable costs, considering health, safety, and environmental impacts.

¹⁰ Dunn-Edwards also contends that EPA was required to account for reactivity variation caused by differences in the makeup of the ambient air in different airsheds, noting that the agency conceded that "ideally" ozone control strategies should consider the conditions in specific airsheds. See Dunn-Edwards Br. at 17 n.17 (citing Report at 2-1 (J.A. at 523)). Nothing in the statutory language, however, requires airshed-by-airshed analysis. Nor does this court's authority extend to requiring EPA to utilize the "ideal" strategy, particularly not when the agency concludes that such a strategy is not practical in light of the limitations of the existing data. See Report at 2-1 (J.A. at 523).

Id. s 7511b(e)(2)(B).¹¹ We reject this challenge.

First, EPA did consider the three listed factors. Each was expressly included among the regulatory criteria adopted by the agency, and was applied in establishing regulatory priorities. See Report at 4-6 (J.A. at 562) (factor iii); id. at 4-10 to 4-11 (J.A. at 566-67) (factor iv); id. at 4-8 to 4-9 (J.A. at 564-65) (factor v); see also Final Listing, 63 Fed. Reg. at 48,794 (listing criteria); Notice of Product Category List, 60 Fed. Reg. at 15,266 (same); Report at 4-12 to 4-13 (J.A. at 568-69) (describing application of the criteria); EPA, National Air Pollution Control Techniques Advisory Committee Meeting on Consumer and Commercial Products 53 (1995) (J.A. at 700) (describing EPA's scoring of product categories based on the criteria).

Second, EPA's consideration of these factors was adequate to constitute reasoned decisionmaking. As we have discussed above, EPA considered the third factor by assigning greater weight to those products that emit VOCs from one of the ten classes of VOCs that are highly reactive, an approach we regard as consistent with the statute and neither arbitrary nor capricious. See *supra* Part III. EPA reasonably considered the fourth factor by assigning a higher priority to categories of products that can reduce VOC emissions at lowest cost. See Report at 4-10 to 4-11 (J.A. at 566-67).¹² And EPA adequately considered the fifth factor, the availability of alternatives at comparable costs, by applying a criterion that evaluated the possibility of reformulation of the product and the availability of substitutes. See Report at 4-8 to 4-9

¹¹ The first two factors listed in the statute are: "(i) The uses, benefits, and commercial demand of consumer and commercial products[; and] (ii) The health or safety functions (if any) served by such consumer and commercial products." 42 U.S.C. s 7511b(e)(2)(B).

¹² EPA used cost-effectiveness data where it was available, and where it was not, used a matrix that considered the availability of alternatives and the mass of emissions from the product. See Report at 4-10 to 4-11 (J.A. at 566-67).

(J.A. at 564-65); see also Response to Comments at 2-27 (J.A. at 714).¹³

In addition to alleging that EPA failed to consider these three statutorily-enumerated factors, Allied contends that EPA impermissibly considered two further factors not listed in the statute: "magnitude of annual VOC emissions" and "regulatory efficiency and program considerations." Final Listing, 63 Fed. Reg. at 48,794; see supra note 3. Although it is true that "an agency rule would be arbitrary and capricious if the agency has relied on factors which Congress has not intended it to consider," *State Farm*, 463 U.S. at 43, that is not the case here. Nothing in section 183(e) suggests that Congress intended to limit EPA's consideration to the five factors specified in the statute. Indeed, the structure of the section suggests the contrary. Subsection (2)(A) first directs the agency to "establish criteria"; subsection (2)(B) then directs that "[i]n establishing the criteria," the agency "shall take into consideration" the five listed factors. The reasonable inference taken by EPA is that while it must consider the five listed factors, it is not barred from considering additional ones. See *George Warren Corp. v. EPA*, 159 F.3d 616, 624 (D.C. Cir. 1998) (noting this court's "usual reluctance to infer from congressional silence an intention to preclude the agency from considering factors other than those listed in a statute").

Moreover, the two additional criteria are reasonable in light of the use to which Congress wanted all of the criteria to be put: establishing regulatory priorities among the categories of consumer and commercial products. See 42 U.S.C. s 7511b(e)(3)(A). We have already considered, and judged permissible, EPA's accordance of greater regulatory priority to product categories that emit greater masses of VOCs--the first of the two additional criteria. See supra Part III. The agency's consideration of the second additional factor, denominated as "regulatory efficiency," seems nothing more than

¹³ EPA reasonably relied on consumer acceptance, as measured by market share data, as a surrogate for cost data which was of limited availability. See Report at 4-8 to 4-9 (J.A. at 564-65); see also Response to Comments at 2-27 (J.A. at 714).

regulatory common sense: in determining priorities, EPA considered which categories it could regulate quickly because, for example, the agency had ongoing or recently completed rulemakings concerning them, or because they raised factual issues in common with other categories. See Report at 4-12 to 4-13 (J.A. at 568-69).

V

So far, we have considered challenges to the architectural coatings rule based on the Clean Air Act. In this part, we consider Allied's claims that the rule is contrary to the Regulatory Flexibility Act (RFA)¹⁴ as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA),¹⁵ and to the Unfunded Mandates Reform Act (UMRA).¹⁶

A

Section 603(a) of the RFA requires that an agency, at the time of issuance of a notice of proposed rulemaking, publish an initial regulatory flexibility analysis which "shall describe the impact of the proposed rule on small entities." 5 U.S.C. s 603(a). Section 603(c) requires that such an initial analysis also describe "any significant alternatives to the proposed rule which accomplish the stated objectives" of the applicable statute while minimizing significant economic impact on small entities. Id. s 603(c). Allied contends that EPA failed to comply with section 603(a) by failing to discuss two such economic impacts: "stigmatic harm" allegedly arising from the agency's suggestion that it may impose more stringent VOC limits in future regulations;¹⁷ and asset devaluation, in that the coatings rule allegedly will render existing product

¹⁴ 5 U.S.C. ss 601 et seq.

¹⁵ Pub. L. No. 104-121, ss 241-42, 101 Stat. 857, 864-68 (1996).

¹⁶ 2 U.S.C. ss 1501 et seq.

¹⁷ In announcing the architectural coatings rule, EPA stated that in the future "an additional study for this category may be

formulas valueless. Allied also contends that EPA failed to comply with section 603(c) by failing to consider label directions as an alternative to VOC limits.

We are without jurisdiction to consider these challenges to EPA's compliance with the initial regulatory flexibility analysis requirements of section 603. Section 611(c) of the RFA states that "[c]ompliance or noncompliance by an agency with the provisions of this chapter shall be subject to judicial review only in accordance with this section." 5 U.S.C. s 611(c). Section 611(a) specifically lists the sections of the RFA subject to judicial review, and section 603 is not on the list.¹⁸ See *id.* s 611(a)(1), (2).

warranted to determine the feasibility of additional reductions in VOC limits." Final Rule, 63 Fed. Reg. at 48,872. Allied contends not only that this announcement imposes a "stigma" on manufacturers, but that EPA would be without authority to issue such additional reductions. EPA replies, *inter alia*, that this claim is unripe: The agency has not yet decided whether it will issue any further regulations, and Allied has not established that it will suffer any harm in the interim. We agree. See *Grand Canyon Air Tour Coalition v. FAA*, 154 F.3d 455, 471 (D.C. Cir. 1998); *Florida Power & Light Co. v. EPA*, 145 F.3d 1414, 1419-21 (D.C. Cir. 1998). Allied "will have ample opportunity later to bring its legal challenge at a time when harm is more imminent and more certain." *Ohio Forestry Ass'n v. Sierra Club*, 523 U.S. 726, 734 (1998).

¹⁸ In its reply brief, Allied notes that unlike challenges to an agency's compliance with section 603 (concerning initial regulatory flexibility analyses), challenges to compliance with RFA section 604 (concerning final regulatory flexibility analyses) are included in the jurisdictional list of section 611. Allied suggests that the challenges noted in the above text can be reformulated as challenges to compliance with section 604. In relevant part, that section requires the agency to describe the steps it has taken "to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of ... why each of the other significant alternatives to the rule considered by the agency ... was rejected." 5 U.S.C. s 604(a)(5) (emphasis added). For the reasons noted in the text, Allied has not estab-

That, however, is not the end of the story. As Allied points out, although we may not review EPA's handling of these issues in terms of the agency's compliance with the RFA, we may consider them in determining whether EPA complied with the overall requirement that an agency's decisionmaking be neither arbitrary nor capricious. See Clean Air Act, 42 U.S.C. s 7607(d)(9)(A); see also APA, 5 U.S.C. s 706(2)(A). That was the law prior to passage of SBREFA's amendments to the RFA, see *Thompson v. Clark*, 741 F.2d 401, 405 (D.C. Cir. 1984); *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 539 (D.C. Cir. 1983), and it was not altered by those amendments.¹⁹

For an agency's decisionmaking to be rational, it must respond to significant points raised during the public comment period. See *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 35-36 (D.C. Cir. 1977). EPA did so here. The agency stated that it was not aware of any stigmatic harm of the kind urged by Allied, and reasonably concluded that the comments submitted on the subject had "not provided enough detail to allow the EPA to consider the issue further." Background at 2-334 (J.A. at 474). Allied's unadorned allegation in its brief, that "[s]uch impacts are significant," Allied Br. at 23, adds no further detail and no reason to require further agency response. EPA also reasonably rejected the contention that it was ignoring the regulation's impact on the value of existing

lished that the economic impacts and regulatory alternative it contends EPA ignored can be classified as "significant."

¹⁹ Prior to the amendments, section 611(b) stated: "When an action for judicial review of a rule is instituted, any regulatory flexibility analysis for such rule shall constitute part of the whole record of agency action in connection with the review." 5 U.S.C. s 611(b) (1994). In *Thompson*, 741 F.2d at 405, we held that those words "mean[] that the reviewing court will consider the contents of the preliminary or final regulatory flexibility analysis, along with the rest of the record, in assessing not the agency's compliance with the Regulatory Flexibility Act, but the validity of the rule under other provisions of law," particularly the APA. The current version of section 611(b) contains the same words, with minor stylistic alterations.

product formulas, noting that to the contrary it was directly considering that impact by analyzing the effect of the regulation on annual profits per product. See Background at 2-334 (J.A. at 474).

To be regarded as rational, an agency must also consider significant alternatives to the course it ultimately chooses. See *State Farm*, 463 U.S. at 48-51; *Grand Canyon Air Tour Coalition v. FAA*, 154 F.3d 455, 471 (D.C. Cir. 1998); *Public Citizen v. Steed*, 733 F.2d 93, 99 (D.C. Cir. 1984). Allied contends that the agency should have considered imposing a requirement that labels contain directions for responsible use of coating products, as an alternative to imposing VOC limits on such products.²⁰ But the agency did consider the possibility of imposing label directions as an addition to product reformulation, and even in that respect found "it would be impossible to predict the VOC reductions achieved by providing the consumer with directions for use." Report at 2-14 (J.A. at 536). Allied offers no response to this defect in the labeling alternative, and no reason to believe that such an approach would accomplish the objectives of the Clean Air Act. Accordingly, we reject Allied's challenges under the RFA.²¹

²⁰ The Clean Air Act authorizes, but does not require, "directions for use" as one of numerous possible means of achieving emissions reduction. 42 U.S.C. s 7511b(e)(1)(A) (defining "best available controls" as the degree of emissions reduction achievable through application of "the most effective equipment, measures, processes, methods, systems or techniques, including chemical reformulation, product or feedstock substitution, repackaging, and directions for use, consumption, storage, or disposal").

²¹ Allied briefly raises two further RFA claims. First, it charges that the agency failed to comply with the requirement of section 609(b) that it, inter alia, convene a review panel prior to issuing the initial regulatory flexibility analysis. This court, however, has no jurisdiction to review challenges to an agency's compliance with section 609(b). See 5 U.S.C. s 611(a)(1)-(2), (c). Second, Allied contends that EPA failed to comply with the requirement of section 601(3) that it provide an opportunity for public comment before adopting (as it did) a definition of the term "small business"

B

Allied contends that EPA violated provisions of the Unfunded Mandates Reform Act that require preparation of a written cost-benefit analysis, see 2 U.S.C. s 1532(a)(2), and selection of the "least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule," id. s 1535(a). UMRA itself expressly denies courts jurisdiction to review compliance with the latter provision. See id. s 1571(b)(1); see also id. s 1571(a). And while the Act permits limited judicial review of compliance with the requirement to prepare a written cost-benefit analysis,²² that requirement is not triggered unless the rule in question may result in expenditures of \$100 million or more in any one year, see id. s 1532(a). Because EPA estimated the total cost associated with the architectural coatings rule to be only \$32 million per year, see Final Rule, 63 Fed. Reg. at 48,855, it concluded that UMRA was inapplicable. See id. at 48,875-76.

Allied challenges EPA's cost estimate, but advances little basis for such a challenge beyond the complaints we considered above in the context of Allied's RFA claim: Petitioner contends that EPA ignored the "stigmatic" costs it imposed through its suggestion that more stringent VOC limits might

different from that referenced in the statute. See 5 U.S.C. s 601(3); 15 U.S.C. s 632(a). Although we do have jurisdiction to review a section 601 challenge, see 5 U.S.C. s 611(a)(1)-(2), Allied's challenge fails on the merits because EPA did provide an opportunity for public comment on its proposed definition. See National Volatile Organic Compound Emission Standards for Architectural Coatings, Extension of Public Comment Period, 61 Fed. Reg. 46,410, 46,411 (1996); Background at 2-373 to 2-375, 2-424 to 2-426 (J.A. at 480-82, 490-92).

²² UMRA, 2 U.S.C. s 1571(a)(2)(A), states that agency compliance with section 1532 is subject to judicial review only under 5 U.S.C. s 706(1) (court may compel agency action unlawfully withheld). If an agency fails to prepare the written statement required by section 1532, "a court may compel the agency to prepare such written statement," 2 U.S.C. s 1571(a)(2)(B), but the failure may "not be used as a basis for ... invalidating or otherwise affecting [the] rule," id. s 1571(a)(3).

be promulgated in the future, as well as the impact of the coatings rule on the market value of existing product formulas.²³ We concluded above that EPA dealt with these issues in a reasonable manner and, given the limited judicial review applicable to compliance with section 1532(a), see *supra* note 22, we have no warrant for inquiring further under UMRA.²⁴

VI

Finally, we consider Allied's argument that in regulating architectural coatings, Congress exceeded its constitutional authority "[t]o regulate Commerce ... among the several States." U.S. Const., art. I, s 8, cl. 3. Dunn-Edwards does not join in this attack, and the intervenor National Paint & Coatings Association actively opposes it, preferring uniform national regulation to the "multiple, divergent state rules" that would otherwise hold sway. NPCA Br. at 3. The crux

23 Allied's brief also asserts, without elaboration, that EPA "excluded from its calculus losses to (1) retailers, (2) contractors, (3) workers, and (4) consumers," and that each of these categories "may alone reach \$100,000,000 in any year." Allied Br. at 25. But EPA did consider the effect of the rule on many of these groups, see EPA, Draft Economic Impact Analysis and Regulatory Flexibility Analysis of Air Pollution Regulations: Architectural and Industrial Maintenance Coatings 2-32 to 2-40, 2-44 to 2-45 (J.A. at 33-41, 45-46); Background at 2-364 to 2-366 (J.A. at 1017-19), and Allied offers neither support for nor explanation of the loss calculation it asserts.

24 In a related argument, Dunn-Edwards contends that EPA must consider costs in the course of examining "economic feasibility," a factor in the evaluation of "best available controls" under the statute, 42 U.S.C. s 7511b(e)(1)(A). Dunn-Edwards argues that EPA's cost estimate was arbitrary and capricious, largely because the agency reduced its initial estimate after receiving cost estimates submitted by commenters without determining the reliability of those estimates. In fact, EPA did evaluate the reasonableness of the comments, utilizing data from only 11 out of 27 because the others suffered from incompleteness or lack of clarity, or from a failure to provide cost information on a per product basis. See Background at 2-304 to 2-305 (J.A. at 444-45).

of Allied's argument is that EPA's regulation exceeds Congress' authority under the Commerce Clause because there is an insufficient nexus between coatings manufacture, which it describes as an intrastate event, and the interstate phenomenon of ozone formation.

Allied attempts to rely on the Supreme Court's decision in *United States v. Lopez*, 514 U.S. 549 (1995), striking down the Gun-Free School Zones Act²⁵ which made it a federal crime knowingly to possess a firearm in a school zone. In *United States v. Morrison*, 68 U.S.L.W. 4351 (U.S. May 15, 2000), handed down last month, the Court relied on *Lopez* in holding that Congress also lacked authority under the Commerce Clause to provide a federal civil remedy for the victims of gender-motivated violence. In both cases, the Court agreed that " 'Congress' commerce authority includes the power to regulate those activities having a substantial relation to interstate commerce, ... i.e., those activities that substantially affect interstate commerce.' " *Id.* at 4354 (quoting *Lopez*, 514 U.S. at 558-59). As *Morrison* explained, however, four considerations contributed to *Lopez*'s conclusion that the Gun-Free School Zones Act did not fall within that category of regulatable activity. Not one of those considerations applies to section 183(e) of the Clean Air Act.

The Court held, first, that "in those cases where we have sustained federal regulation of intrastate activity based upon the activity's substantial effects on interstate commerce, the activity in question has been some sort of economic endeavor." *Id.* at 4355 (citing *Lopez*, 514 U.S. at 559-60). *Morrison* noted that the criminal statute at issue in *Lopez* " 'had nothing to do with "commerce" or any sort of economic enterprise, however broadly one might define those terms.' " *Id.* at 4354 (quoting *Lopez*, 514 U.S. at 561). It said that the same was true of the federal civil remedy provision of the Violence Against Women Act (VAWA).²⁶ See *id.* at 4355. But the same cannot be said of the Clean Air Act provisions concerning VOC emissions, which permit regulation only of:

²⁵ 18 U.S.C. s 922(q)(1)(A).

²⁶ 42 U.S.C. s 13981.

(i) manufacturers, processors, wholesale distributors, or importers of consumer or commercial products for sale or distribution in interstate commerce in the United States; or

(ii) manufacturers, processors, wholesale distributors, or importers that supply the entities listed under clause (i) with such products for sale or distribution in interstate commerce in the United States.

42 U.S.C. s 7511b(e)(1)(C).

Second, Morrison noted that in *Lopez*, the Gun-Free School Zones Act, like VAWA, "contained 'no express jurisdictional element which might limit its reach to a discrete set of firearm possessions that additionally have an explicit connection with or effect on interstate commerce.'" Morrison, 68 U.S.L.W. at 4355 (quoting *Lopez*, 514 U.S. at 562). As quoted above, however, EPA's regulation of VOCs is expressly limited to entities that act "in interstate commerce." 42 U.S.C. s 7511b(e)(1)(C).

Third, Morrison pointed out that neither the Gun-Free School Zones Act, " 'nor its legislative history contain[s] express congressional findings regarding the effects upon interstate commerce of gun possession in a school zone.'" *Id.* (quoting *Lopez*, 514 U.S. at 562). The legislative history of the Clean Air Act Amendments, by contrast, expressly describes the problem of interstate transport of ozone, see, e.g., S. Rep. No. 101-228, at 3, 13, 49 (1989), as well as its effects on the national economy, see, e.g., *id.* at 8-9.

Finally, according to Morrison, the "decision in *Lopez* rested in part on the fact that the link between gun possession and a substantial effect on interstate commerce was attenuated," Morrison, 68 U.S.L.W. at 4355, which the Court said was true of gender-motivated violence as well, see *id.* at 4356. But, there is nothing attenuated about the interstate effects of the activity regulated here. We ourselves have noted the interstate nature of the "ozone transport phenomenon," and the way in which it may render any given state unable to achieve attainment because of ozone created hundreds of miles away. See *Virginia v. EPA*, 108 F.3d 1397, 1400 (D.C. Cir. 1997). The legislative history and EPA's

report to Congress substantiate the heavy impact ozone pollution has on national health care costs and national agricultural production. See S. Rep. No. 101-228, at 8-9 (1989); Report at 1-1 (J.A. at 518). And the rulemaking record sustains the proposition that the large majority of the products regulated by the rule are distributed nationally, and then applied by end-users in multiple locations, see 63 Fed. Reg. 48,792, 48,804--facts that are confirmed, and stressed, by the National Paint & Coatings Association, see NPCA Br. at 24.

In short, none of the considerations that led the Court to find Congress' authority wanting in *Lopez* and *Morrison* has any application to section 183(e) of the Clean Air Act. In *Hodel v. Virginia Surface Mining and Reclamation Ass'n*--a case cited with approval by the Supreme Court in both *Lopez* and *Morrison*, see *Lopez*, 514 U.S. at 557; *Morrison*, 68 U.S.L.W. at 4354--the Court declared that it "agree[d] with the lower federal courts that have uniformly found the power conferred by the Commerce Clause broad enough to permit congressional regulation of activities causing air or water pollution, or other environmental hazards that may have effects in more than one State." 452 U.S. 264, 282 (1981). Contrary to *Allied's* assertion, nothing contained in the Court's recent Commerce Clause jurisprudence casts doubt on the validity of that declaration here.

VII

For the foregoing reasons, we reject petitioners' challenges to the architectural coatings rule and deny the petitions for review.