ORAL ARGUMENT NOT YET SCHEDULED

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 08-1250
(and consolidated cases)

NATURAL RESOURCES DEFENSE COUNCIL, and SIERRA CLUB,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,

Respondent.

On Petition for Review of Final Rules of the
United States Environmental Protection Agency

FINAL BRIEF OF RESPONDENT UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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June 4, 2012

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

NATURAL RESOURCES DEFENSE COUNCIL, and SIERRA CLUB, Petitioners, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Respondent.	No. 08-1250 (and consolidated cases)

CERTIFICATE AS TO PARTIES, RULINGS AND RELATED CASES

I, the undersigned counsel for Respondent United States Environmental Protection Agency, hereby certify pursuant to Rule 28(a)(1) of the Rules of the United States Court of Appeals for the District of Columbia Circuit, to the best of my knowledge, information and belief, the following:

A. Parties and Amici

(i) Parties, intervenors, and amici who appeared below.

The requirement in Circuit Rule 28(a)(1)(A) to identify parties, intervenors and amici who appeared in the district court below is inapplicable because the instant petition seeks direct review of agency rulemaking.

(ii) Parties, intervenors, and amici in this Court.

Petitioners:

1. In Case No. 08-1250: Natural Resources Defense Council ("NRDC") and Sierra Club
2. In Case No. 09-1102: NRDC and Sierra Club
3. In Case No. 11-1430: American Lung Association, Medical Advocates for Healthy Air, NRDC and Sierra Club

Respondent: United States Environmental Protection Agency ("EPA")

Intervenors:

- National Environmental Development Association's Clean Air Project
- Utility Air Regulatory Group
- Fine Particle Litigation Group
- National Petrochemical & Refiners Association and American Petroleum Institute
- National Cattlemen's Beef Association

Amici: None

B. Rulings Under Review

Petitioners seek review of two final rules promulgated by EPA under the Clean Air Act, both of which govern implementation of the fine particulate matter ("$PM_{2.5}$") national ambient air quality standard originally established in 1997. See

72 Fed. Reg. 20,586 (Apr. 25, 2007) ("Clean Air Fine Particle Implementation Rule"); 73 Fed. Reg. 28,321 (May 16, 2008) ("Implementation of the New Source Review (NSR) Program for [$PM_{2.5}$]"). These rules are included in the Addendum of Pertinent Statutes and Regulations to EPA's Brief.

C. Related Cases

Case No. 07-1227 (and consolidated cases) is related. Petitioners in these consolidated cases challenge the "Clean Air Fine Particle Implementation Rule," 72 Fed. Reg. 20,586. On June 27, 2011, Petitioners in Case No. 08-1250 moved jointly with EPA, and without opposition by any other party, to consolidate with Case No. 08-1250 certain common issues presented in Case No. 07-1227 so that they could be litigated together with Case No. 08-1250. The Court granted that motion on November 8, 2011. In all other respects, Case No. 07-1227 remains held in abeyance pending EPA's consideration of an administrative petition requesting reconsideration of the Implementation Rule.

Dated: June 4, 2012 /s/ Brian H. Lynk
Brian H. Lynk

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ATA I	American Trucking Ass'ns v. EPA, 175 F.3d 1027, 1056-57 (D.C. Cir.)
ATA II	American Trucking Ass'ns v. EPA 195 F.3d F.3d 4 (D.C. Cir. 1999)
ATA III	American Trucking Ass'ns v. EPA, 283 F.3d 355, 365 (D.C. Cir. 2002)
CAA or Act	Clean Air Act
EPA	United States Environmental Protection Agency
NAAQS	National Ambient Air Quality Standard
NO_x	Oxides of Nitrogen
NSR	New Source Review
PM	Particulate Matter
$PM_{2.5}$	Airborne particles generally less than or equal to 2.5 micrometers in diameter
PM_{10}	Airborne particles generally less than or equal to 10 micrometers in diameter
PSD	Prevention of Significant Deterioration
RACM	Reasonable Available Control Measures
RACT	Reasonably Available Control Technology
RFP	Reasonable Further Progress
RTC	Response to Comments

SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SOA	Secondary Organic Aerosol
TSP	Total Suspended Particles
VOC	Volatile Organic Compound

JURISDICTION

This case concerns two final rules promulgated by the United States Environmental Protection Agency ("EPA") under the Clean Air Act ("CAA" or "Act") governing implementation of the fine particulate matter ("$PM_{2.5}$") national ambient air quality standard ("NAAQS") originally established in 1997. See 72 Fed. Reg. 20,586 (Apr. 25, 2007) ("Clean Air Fine Particle Implementation Rule"); 73 Fed. Reg. 28,321 (May 16, 2008) ("Implementation of the New Source Review (NSR) Program for [$PM_{2.5}$]").

EPA does not contest any party's standing. 42 U.S.C. § 7607(b)(1) creates subject-matter jurisdiction. All petitions were timely filed, except that objections to a determination EPA originally published prior to the instant rulemaking are untimely. Infra Argument I.A.

STATUTES AND REGULATIONS

An attached addendum contains all relevant provisions.

STATEMENT OF ISSUES

1. Does the Act require, or in the alternative did EPA reasonably interpret the Act to allow, implementation of the $PM_{2.5}$ NAAQS under subpart 1 rather than subpart 4 of Part D of Title I, since the text of subpart 4 expressly applies to the coarse particulate matter ("PM_{10}") NAAQS?

2. Did EPA reasonably exercise its authority under 42 U.S.C. § 7602(g) to "identify" certain precursors as "air pollutants" presumptively subject to $PM_{2.5}$ NAAQS implementation and New Source Review requirements, while determining that the available scientific data supported the opposite presumption for other precursors?

STATEMENT OF THE CASE

I. NATURE OF THE CASE

Petitioners in this case challenge certain aspects of two EPA regulations governing implementation of the 1997 NAAQS for fine particulate matter or "$PM_{2.5}$." The Implementation Rule, promulgated in 2007, generally addresses how emissions control measures and other requirements under Title I, Part D of the Act apply through State Implementation Plans ("SIPs") to areas designated "nonattainment" for the 1997 $PM_{2.5}$ NAAQS. 72 Fed. Reg. 20,586. The provisions of this rule are codified in 40 C.F.R. Part 51. The NSR Rule, promulgated in 2008, addresses how such areas are to comply with statutory "New Source Review" ("NSR") permitting requirements. 73 Fed. Reg. 28,321. The provisions of this rule are codified in 40 C.F.R. Parts 51 and 52.

Petitioners challenge, as an initial matter, EPA's determination in each of these final rules that nonattainment requirements for $PM_{2.5}$ are governed by subpart 1, rather than subpart 4, of Part D of Title I of the Act. Secondarily, Petitioners

challenge EPA's decision to adopt a presumption that emissions of ammonia and volatile organic compounds do not require regulation for purposes of $PM_{2.5}$ nonattainment planning and NSR, except for those nonattainment areas as to which a State or EPA makes a technical demonstration that emissions of ammonia or volatile organic compounds significantly contribute to $PM_{2.5}$ concentrations in the nonattainment area.

II. GENERAL BACKGROUND REGARDING THE NAAQS PROVISIONS

The CAA, enacted in 1970 and extensively amended in 1977 and 1990, establishes a comprehensive program for controlling and improving the nation's air quality through a combination of state and federal regulation. Under Title I, EPA identifies air pollutants anticipated to endanger the public health and welfare, and formulates NAAQS, which establish maximum permissible concentrations of those pollutants in the ambient air. 42 U.S.C. §§ 7408-09; 40 C.F.R. pt. 50. "Primary" NAAQS protect against adverse effects on public health, while "secondary" NAAQS protect the public welfare. 42 U.S.C. § 7409(a)-(b). To ensure that NAAQS will keep pace with advances in scientific knowledge, the statute provides for EPA to review the NAAQS at least once every five years and revise them as "appropriate in accordance with [42 U.S.C. § 7408 and 7409(b)]." 42 U.S.C. § 7409(d)(1).

Within two years of promulgating a new or revised NAAQS, EPA must "designate" areas of the country as either "attainment" (i.e., meeting that NAAQS), "nonattainment" (i.e., not meeting that NAAQS), or "unclassifiable." Id. § 7407(d)(1)(A). The Act then calls on the States to establish State Implementation Plans ("SIPs"), which impose controls on sources of air pollution as necessary to attain the NAAQS. Id. § 7410; see Lead Indus. Ass'n v. EPA, 647 F.2d 1130, 1137 (D.C. Cir. 1980).

III. PARTICULATE MATTER POLLUTION AND THE PM NAAQS

A. "Fine" and "Coarse" Particulate Matter

The term "particulate matter" embraces a broad class of discrete, but chemically and physically diverse, solid particles and liquid droplets in the ambient air. 70 Fed. Reg. 65,984, 65,992 (Nov. 1, 2005). Such particles may range from less than a micrometer to more than 30 micrometers in diameter. Id. There are two relevant and generally distinct types of particulate matter or "PM": fine and coarse. Although the terms "fine" and "coarse" are sometimes used solely in relation to particle size, they also refer to a particle's chemistry and mechanism of formation. Id.

Fine particles derive primarily from combustion by-products that volatilize and quickly condense or form gases (such as sulfur oxides, nitrogen oxides, volatile organic compounds and ammonia) that react and transform in the

atmosphere. Id. Coarse particles are emitted by some of the same industrial sources that emit fine particles, but (unlike fine particles) primarily are formed by mechanical processes such as crushing, grinding and abrasion, and by the suspension of dust. Id. Coarse particles include suspended soils and street dusts, combustion fly ash, agricultural soils and residues, and organic carbon from abrasion of tires and asphalt. Id.

The 1997 PM NAAQS uses "$PM_{2.5}$" (referring to "[a]irborne particles generally less than or equal to 2.5 micrometers in diameter") as the "indicator" for fine particles and "PM_{10}" (i.e., airborne particles generally less than or equal to 10 micrometers in diameter) as the indicator for coarse particles. See, e.g., 72 Fed. Reg. at 20,587; infra at 8 n.1 (explaining "indicator").

B. Background Regarding "Secondary" Fine Particle Pollution and "Precursors"

Fine particles that are either emitted directly into the air in a solid or liquid chemical form, or formed near their source by condensation processes, are referred to as "primary" particles. 70 Fed. Reg. at 65,992. Sources of primary particles include soot from diesel engines, a wide variety of organic compounds condensed from incomplete combustion or cooking operations, and compounds that condense from vapor formed during combustion or smelting. Id. "Secondary" particles are those resulting from chemical reactions of gas-phase "precursors" in the

atmosphere, which reactions either form new particles or condense onto other particles in the air. Id. Most of the sulfate and nitrate and a portion of the organic compounds in the atmosphere are formed by such chemical reactions. Id. Secondary PM formation depends on numerous factors including the concentrations of precursors; the concentrations of other gaseous reactive species such as ozone; atmospheric conditions including solar radiation, temperature, and relative humidity; and the interactions of precursors and pre-existing particles with cloud or fog droplets. Id.

The main precursor gases or chemicals associated with fine particle formation are sulfur dioxide (SO_2), oxides of nitrogen (NO_x), volatile organic compounds (VOCs) and ammonia. 72 Fed. Reg. at 20,589; see also 70 Fed. Reg. at 65,995-97. However, the relative contributions of these gases to $PM_{2.5}$ formation vary significantly among the different regions of the United States. See 70 Fed. Reg. at 65,992-94 and Tables 2-3. Thus, in the rulemakings under review here, EPA considered how States should address $PM_{2.5}$ precursors given that "the refinement of emissions inventories, the overall contribution of different fine particle precursors to $PM_{2.5}$ formation, and the efficacy of alternative potential control measures will vary by location." 72 Fed. Reg. at 20,589; infra at V.B.

C. Evolution of the PM NAAQS

Particulate matter was one of six pollutants covered by the original NAAQS promulgated in 1971. 36 Fed. Reg. 8186 (Apr. 30, 1971). The indicator in the first PM NAAQS was Total Suspended Particles ("TSP"), which was measured by a device that captured most particles smaller than 25-45 micrometers ("μm") in diameter.

In 1987, when EPA first revised the PM NAAQS, EPA refined the standards to focus on "inhalable" particles. EPA changed the PM indicator from TSP to PM_{10} based on evidence that the risk of adverse health effects associated with particles of 10μm or less, which can penetrate into the trachea, bronchi and deep lungs, was "markedly greater" than that associated with larger particles. 52 Fed. Reg. 24,634, 24,639 (July 1, 1987).

EPA revised the PM NAAQS a second time in 1997. 62 Fed. Reg. 38,652 (July 18, 1997). In that review, EPA determined it was appropriate to set separate standards for fine particles and coarse particles, based on evidence that serious health effects were associated with short- and long-term exposure to fine particles in areas that met the existing PM_{10} standards. Id. at 38,665-68; see also American Trucking Ass'ns v. EPA, 283 F.3d 355, 365 (D.C. Cir. 2002) ("ATA III"). Accordingly, EPA adopted two new health-based (primary) standards with a $PM_{2.5}$ indicator – an annual and a 24-hour standard – as well as welfare-based

(secondary) standards identical to the primary standards. See 72 Fed. Reg. at 20,587 (describing the 1997 rulemaking). To address the separate health risks associated with exposure to coarse particles, EPA modified the form, but not the level, of the existing 24-hour PM_{10} standard and retained the existing annual PM_{10} standard.[1/]

In response to petitions for review of both the 1997 PM NAAQS and the 1997 ozone NAAQS, this Court upheld EPA's decision to create a NAAQS for fine particles, including the use of $PM_{2.5}$ as the indicator for fine particles, the form of the standard, and the levels EPA chose. ATA III, 283 F.3d at 368-75. In an earlier opinion, the Court also upheld EPA's decision to establish $PM_{2.5}$ secondary standards (to address adverse effects on visibility) that were identical to the primary standards. American Trucking Ass'ns v. EPA, 175 F.3d 1027, 1056-57 (D.C. Cir.) ("ATA I"), modified on reh'g, 195 F.3d 4 (D.C. Cir. 1999) ("ATA II"), rev'd in part on other grounds, Whitman v. American Trucking Ass'ns, 531 U.S. 457 (2001). Finally, the Court upheld EPA's decision to have separate standards

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[1/] There are four components to a NAAQS, all of which can affect the degree of health or welfare protection: (1) the indicator, e.g., $PM_{2.5}$; (2) the averaging time, e.g., 24-hour; (3) the level – for example, the level of the 24-hour $PM_{2.5}$ standard established in 1997 is 35 micrograms per cubic meter ($\mu g/m^3$); and (4) the form – for instance, EPA determines whether the 24-hour $PM_{2.5}$ standard established in 1997 is met by looking at the 3-year average of the 98^{th} percentile of 24-hour $PM_{2.5}$ concentrations, whereas another standard (i.e., with a different form) might require a different averaging protocol.

for coarse particles, but held that EPA had failed to reasonably explain its use of the PM_{10} indicator for that purpose, and hence vacated and remanded the PM_{10} standards. ATA I, 175 F.3d at 1053-55, 1057.

EPA most recently revised the PM NAAQS in 2006. 71 Fed. Reg. 61,144 (Oct. 17, 2006). The 2006 NAAQS rule continues the use of separate $PM_{2.5}$ and PM_{10} standards to address the respective health and welfare effects of fine and coarse particles. In American Farm Bureau Fed'n v. EPA, 559 F.3d 512, 531-39 (D.C. Cir. 2009), this Court denied all petitions for review with respect to the PM_{10} NAAQS. The Court specifically held that EPA reasonably explained its use of PM_{10} as the indicator for coarse particles. Id. at 535-36.

IV. STATUTORY BACKGROUND REGARDING NAAQS IMPLEMENTATION

A. State Implementation Plans

Congress "delegated to the States primary responsibility for implementing the NAAQS." Louisiana Envtl. Action Network ("LEAN") v. EPA, 382 F.3d 575, 578-79 (5th Cir. 2004). For each area within its borders failing to meet a NAAQS, a State is required to submit to EPA a state implementation plan or "SIP" setting forth the required pollution control measures and other programs the State will use to timely attain the NAAQS in that area. 42 U.S.C. §§ 7410(a), 7502(b).

SIPs submissions are adopted by the State after reasonable public notice and a hearing. Id. § 7410(a)(1). EPA then reviews each submitted plan for compliance with the applicable provisions of the Act. Id. § 7410(k). If EPA approves the SIP submission in whole or in part, the approved provisions become federally enforceable. Id. §§ 7413, 7604. If EPA does not approve or finds the submission incomplete, the State may be subject to sanctions and, eventually, federally imposed clean air measures. Id. §§ 7410(c), 7509.

B. Requirements under Part D, Subpart 1

The Act's 1990 amendments established a complex program for implementing existing and revised NAAQS in Part D, Subparts 1-5 of the Act. Under Subpart 1, EPA may – but is not required to – classify areas designated nonattainment for any new or revised NAAQS. Id. § 7502(a)(1)(A). For all nonattainment areas, EPA must establish attainment dates that "can be achieved as expeditiously as practicable," but are no later than five years from the date the area is designated nonattainment, or up to ten years from designation if "appropriate" based on specified considerations. Id. § 7502(a)(2)(A). Subpart 1 specifies control measures and other programs that States must include in SIPs for all nonattainment areas, except as modified by requirements under other subparts. Id. § 7502(b)-(c).

C. Nonattainment Area Requirements for "PM10" under Subpart 4

Subpart 4 establishes a classification scheme and imposes more specific requirements for the adoption of pollution control measures by certain nonattainment areas. 42 U.S.C. §§ 7513-13b. Although the subpart is generically titled "Additional Provisions for Particulate Matter Nonattainment Areas," the statutory text invariably makes particular reference to "PM-10" as the subject of each specified requirement. See, e.g., id. §§ 7513(c) ("Except as provided under subsection (d) [concerning extension of attainment dates], the attainment dates for *PM-10* nonattainment areas shall be as follows . . . .") (emphasis added); 7513a(b)(3) (defining "major sources" and "major stationary sources" in "serious" nonattainment areas as those that emit, or have the potential to emit, "at least 70 tons per year of PM-10"); 7513a(e) (requirements for "PM-10 precursors").

D. New Source Review

The Act requires new or modified stationary sources to obtain construction permits under what is collectively called the "New Source Review" program. As amended in 1990, Subpart 1 provides that permits to construct and operate a new or modified major stationary source in an area designated nonattainment for any NAAQS may be issued if, among other things, "sufficient offsetting emissions reductions have been obtained, such that total allowable emissions . . . will be sufficiently less than total emissions from existing sources . . . so as to represent

. . . reasonable further progress." 42 U.S.C. § 7503(a)(1)(A). Subpart 1 imposes several other preconditions for issuing new source permits in areas designated nonattainment. E.g., id. § 7503(a)(2)-(5). These "Nonattainment New Source Review" requirements are implemented through SIPs. Id. § 7502(c)(5).

The Act also establishes a preconstruction permitting program for "major emitting facilities" in areas designated attainment or unclassifiable. Id. § 7475. This part of the NSR program is known as "Prevention of Significant Deterioration" ("PSD"). 73 Fed. Reg. at 28,323.

Finally, the Act imposes a general duty on each State to include a program in its SIP regulating the modification and construction "of any stationary source . . . as necessary to assure that [NAAQS] are achieved, including a permit program as required in parts C and D." 42 U.S.C. § 7410(a)(2)(C); 73 Fed. Reg. at 28,323.

V. SUMMARY OF THE RULEMAKING

EPA published a proposed rule governing implementation of the 1997 $PM_{2.5}$ NAAQS in 2005, following this Court's final resolution of the legal challenges to that NAAQS in ATA III. 70 Fed. Reg. 65,984 ("Proposed Rule"). EPA subsequently took final action in two stages, initially promulgating a general implementation rule in 2007, and then a second final rule in 2008 to address NSR requirements. 72 Fed. Reg. 20,586 ("Implementation Rule"); 73 Fed. Reg. 28,321 ("NSR Rule"). These two rulemakings are summarized in pertinent part below.

A. Implementation Pursuant to Subpart 1 Rather Than Subpart 4

1. 1997 NAAQS Preamble Statement

EPA originally set forth its position on the applicability of subpart 1 for purposes of $PM_{2.5}$ NAAQS implementation in the preamble to the 1997 final rule that established the $PM_{2.5}$ NAAQS, after receiving public comments suggesting that Congress' enactment of subpart 4 had restricted EPA's authority to promulgate a separate standard for $PM_{2.5}$. In that final rule preamble, EPA observed that "Congress clearly specified an approach to the implementation of the PM_{10} standard in the provisions of subpart 4 of Part D of Title I of the Act," and concluded that "the clear and express linkage of that approach to the PM_{10} standard indicates that a different PM standard [such as the one for $PM_{2.5}$] should be implemented under the general principles of subpart 1 of Part D of Title 1 of the Act." 62 Fed. Reg. at 38,695. In a separate passage of the preamble discussing the final rule's impact on small entities, EPA was equally direct in stating its determination that subpart 1, not subpart 4, would govern SIP requirements for $PM_{2.5}$: "The SIP requirements of subpart 4 of Part D of Title I of the Act apply to SIPs for areas designated as not attaining NAAQS for PM_{10}. Those requirements will not apply to SIPs to implement the $PM_{2.5}$ NAAQS." Id. at 38,704 n.96.

2. ATA litigation

In the ensuing litigation concerning the 1997 ozone and PM NAAQS, this Court and the Supreme Court reviewed challenges to EPA's determination in the preamble to the ozone NAAQS final rule that subpart 1 rather than subpart 2 would govern implementation of the revised ozone NAAQS. See 62 Fed. Reg. 38,856, 38,885 (July 18, 1997) (ozone NAAQS final rule preamble); ATA I, 175 F.3d at 1048-50; Whitman, 531 U.S. at 477-86. However, *no* challenge was raised to EPA's conclusion in the PM NAAQS preamble that *subpart 4's* requirements were inapplicable to implementation of the $PM_{2.5}$ NAAQS.

3. The Implementation Rule and NSR Rule

In the 2005 Proposed Rule, EPA reiterated its conclusion that subpart 1 exclusively governs $PM_{2.5}$ NAAQS implementation: "Part D includes a general subpart 1 which applies to all NAAQS for which a specific subpart does not exist. Because the PM standards were not established until 1997, the nonattainment plan provisions found in section 172 of subpart 1 apply." 70 Fed. Reg. at 66,002; see also id. at 66,037 ("EPA does not interpret subpart 4 of [P]art D of the Act . . . to apply to $PM_{2.5}$."). EPA did not specifically request public comments on whether the Act could be construed to make $PM_{2.5}$ NAAQS implementation subject to subpart 4, nor did EPA otherwise suggest that it was reevaluating the question it had resolved in 1997.

Accordingly, consistent with its previously-stated view, EPA explained how States would address the various requirements of subpart 1 (in addition to the general SIP requirements in 42 U.S.C. § 7410), such as the provisions in CAA section 172(c) concerning reasonably available control technology ("RACT"), reasonable available control measures ("RACM"), reasonable further progress ("RFP"), contingency measures, emission inventory requirements, and NSR. 42 U.S.C. § 7502(c); see, e.g., 70 Fed. Reg. at 66,002-04, 66,010-21, 66,036-38.

Both the final Implementation Rule and NSR Rule, like the proposal, implemented the $PM_{2.5}$ NAAQS under subpart 1 rather than subpart 4. See, e.g., 72 Fed. Reg. at 20,598-99; 73 Fed. Reg. at 28,331-32. As noted above, EPA had not specifically sought comments on this issue. Nonetheless, EPA received a number of comments expressing concern about the legal validity of EPA's approach (as well as other comments supporting EPA's approach). EPA therefore responded by explaining in detail its conclusion that the Act, as construed in Whitman, not only does not "mandate" that EPA implement the $PM_{2.5}$ NAAQS under subpart 4, but in fact expressly limits the applicability of that subpart to the PM_{10} NAAQS. See 72 Fed. Reg. at 20,598-99 (2007 final rule preamble); 2007 Response to Comments

("RTC")[2/] at 9-14 (JA 348-53); 73 Fed. Reg. at 28,331-32 (2008 final rule preamble); 2008 RTC[3/] at 24-27, 29-30 (JA 532-35, 537-38).

B. Regulation of Precursors

The Act authorizes EPA to regulate criteria pollutant precursors. In 42 U.S.C. § 7602(g), the Act defines the term "air pollutant" to include "any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term 'air pollutant' is used." Id. As EPA explained in its Proposed Rule preamble, "the second clause of [this] sentence indicates that the Administrator has discretion to identify which pollutants should be classified as precursors for particular regulatory purposes." 70 Fed. Reg. at 65,998. Hence, as part of this rulemaking, EPA considered whether each of the following should be regulated as precursors for purposes of $PM_{2.5}$ NAAQS attainment planning and NSR requirements: sulfur dioxide, ammonia, NO_x and VOCs. See generally 70 Fed. Reg. at 65,998-66,000; 72 Fed. Reg. at 20,590-95; 73 Fed. Reg. at 28,325-31; 2007 RTC at 25-78 (JA 364-417); 2008 RTC at 7-21 (JA 515-29).

[2/] EPA, "Responses to Significant Comments on the 2005 Proposed Rule to Implement the Fine Particle [NAAQS]," Dkt. No. OAR-2003-0062-0251 (Mar. 29, 2007) (JA 340-417).

[3/] EPA, "Implementation of the New Source Review (NSR) Program for [$PM_{2.5}$]: Response to Comments," Dkt. No. OAR-2003-0062-0278 (Mar. 2008) (JA 503-38).

EPA's Proposed Rule provided: (a) that SIPs in all $PM_{2.5}$ nonattainment areas would be required to address sulfur dioxide as a $PM_{2.5}$ attainment plan precursor; (b) that all such SIPs also would be required to address NO_x as a $PM_{2.5}$ attainment plan precursor "unless the State and EPA make[] a finding that NO_x emissions from sources in the State do not significantly contribute to the $PM_{2.5}$ problem in a given area or to other downwind air quality concerns"; and (c) that such SIPs would *not* be required to address ammonia or VOCs as $PM_{2.5}$ attainment plan precursors "unless the State or EPA makes a technical demonstration that ammonia emissions from sources in the State significantly contribute to the $PM_{2.5}$ problem in a given nonattainment area or to other downwind air quality concerns." 70 Fed. Reg. at 66,999-66,000.

EPA requested comments "on all aspects" of its proposed policies for addressing precursor emissions, and requested that such comments be accompanied by detailed technical supporting information. Id. EPA also noted that "[a]ny State or EPA technical demonstration to modify the presumptive policy approach for ammonia, NO_x or VOC should be developed well in advance of the SIP submittal date." Id. at 66,000. "In addition, the development of such a technical demonstration should include consultation with appropriate State, local, and EPA technical representatives representing air quality and transportation agencies." Id.

Both the final Implementation Rule and NSR Rule maintained the same policies that EPA had proposed. Thus, the rules require States to address sulfur dioxide as a $PM_{2.5}$ attainment plan and NSR precursor in all areas, and to address NOx as such a precursor unless there is "a finding that NOx emissions from sources in the State do not significantly contribute to $PM_{2.5}$ concentrations in the relevant nonattainment area." 72 Fed. Reg. at 20,594-95; accord 73 Fed. Reg. at 28,327-28. Conversely, both rules provide that States are *not* required to address ammonia or VOCs as a $PM_{2.5}$ attainment plan or NSR precursor unless a technical demonstration by the State or EPA shows that ammonia or VOC emissions "significantly contribute to $PM_{2.5}$ concentrations in a given nonattainment area." 72 Fed. Reg. at 20,591-93; 73 Fed. Reg. at 28,329-31.

EPA's final rules eliminated the language from the proposal that had referred to "other downwind air quality concerns" as a consideration in determining whether to reverse presumptions, in order to "clarify that identification of attainment plan precursors involves evaluation of the impact on $PM_{2.5}$ levels in a nonattainment area of precursor emissions from sources within the state(s) where the nonattainment area is located." 72 Fed. Reg. at 20,591. This change from the Proposed Rule was appropriate because "[o]ther parts of the Act, notably [42 U.S.C. §§ 7410(a)(2)(D) and 7426], focus on interstate transport of pollutants." 72 Fed. Reg. at 20,591; accord 73 Fed. Reg. at 28,328.

EPA discussed what data and analysis should be included in a technical demonstration to support reversing a $PM_{2.5}$ precursor presumption. 72 Fed. Reg. at 20,591-92, 20,596-97. Additionally, EPA made clear that, "if in the State's SIP planning and adoption process a commenter provides additional information suggesting an alternative policy for regulating a particular precursor, the State will need to respond to this information in its rulemaking action." Id. at 20,591.

VI. LITIGATION BACKGROUND AND ADMINISTRATIVE RECONSIDERATION PROCEEDINGS

Petitioners the American Lung Association, Medical Advocates for Healthy Air, Natural Resources Defense Council and Sierra Club challenged the Implementation Rule in Case No. 07-1233, which was consolidated under Case No. 07-1227.[4/] Later, Petitioners Natural Resources Defense Council and Sierra Club challenged the NSR Rule in Case No. 08-1250. The Petitioners also submitted administrative petitions to EPA requesting reconsideration of both rules. Accordingly, both judicial cases were held in abeyance for several years while EPA considered the petitions for reconsideration.

EPA Administrator Lisa P. Jackson issued a letter granting reconsideration as to four specific provisions or aspects of the NSR Rule on April 24, 2009. See

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[4/] Other parties also filed petitions challenging the Implementation Rule, which remain held in abeyance pending administrative reconsideration. Here, "Petitioners" refers only to the four parties listed above.

74 Fed. Reg. 48,153, 48,154 (Sept. 22, 2009). EPA subsequently took several actions to address issues on which it had granted reconsideration. In May 2011, EPA promulgated a final rule entitled "Implementation of the [NSR] Program for [$PM_{2.5}$]; Final Rule to Repeal Grandfather Provision," which repealed a provision of the federal $PM_{2.5}$ PSD permit program that Petitioners had challenged, and confirmed that application of an Agency policy that was also challenged by Petitioners (the "1997 PM_{10} Surrogate Policy") had ended on May 16, 2011. 76 Fed. Reg. 28,646, 28,648, 28,659 (May 18, 2011). In July 2011, Assistant Administrator Gina McCarthy issued a guidance document entitled "Revised Policy to Address Reconsideration of Interpollutant Trading Provisions for [$PM_{2.5}$]," which offered guidance to States wishing to develop area-specific pollutant trading ratios and explained EPA's reconsideration of certain ratios that the NSR Rule previously had provided would be presumptively approvable if adopted in SIP submissions.[5/]

Administrator Jackson also issued a letter granting reconsideration as to three issues pertaining to the Implementation Rule on April 25, 2011. EPA's evaluation of the petition for reconsideration relating to the Implementation Rule is ongoing.

[5/] This guidance document may be found at http://epa.gov/nsr/guidance.html.

On June 27, 2011, Petitioners and EPA jointly moved to lift the stay of litigation in the NSR Rule case, enter a schedule for briefing with respect to any NSR Rule-related issues that were not resolved or mooted in the course of reconsideration, and consolidate with the NSR Rule case certain common issues raised by Petitioners' challenges to the Implementation Rule. The parties requested that the remainder of the Implementation Rule case continue to be held in abeyance pending administrative reconsideration. The Court granted this motion on November 8, 2011.

STANDARD OF REVIEW

The Court must determine whether EPA's action was arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. 42 U.S.C. § 7607(d)(9)(A). EPA's findings must be upheld if the Agency "examine[d] the relevant data and articulate[d] a satisfactory explanation for its action including a rational connection between the facts found and the choice made." Milk Indus. Found. v. Glickman, 132 F.3d 1467, 1476 (D.C. Cir. 1998) (internal quotation omitted); Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 521 (D.C. Cir. 1983) (action must "conform to certain minimal standards of rationality") (internal quotation omitted). The Court "is guided by the deference traditionally given to agency expertise, particularly when dealing with a statutory

scheme as unwieldy and science-driven as the [CAA]." Appalachian Power Co. v. EPA, 135 F.3d 791, 801-02 (D.C. Cir. 1998); see also ATA III, 283 F.3d at 374.

In reviewing EPA's statutory interpretation, the Court must inquire whether Congress "has directly spoken to the precise question at issue" and, if so, must give effect to Congress' "unambiguously expressed intent." Chevron, U.S.A., Inc. v. NRDC, 467 U.S. 837, 842-43 (1984). If the statute is silent or ambiguous, the Court considers "whether the agency's answer is based on a permissible construction." Id. at 843. Where "Congress has explicitly left a gap" to be filled, EPA's regulation is "given controlling weight unless . . . arbitrary, capricious, or manifestly contrary to the statute." Id. at 843-44. If the delegation is "implicit," the Court "may not substitute its own construction . . . for [EPA's] reasonable interpretation." Id. at 844. EPA need not articulate "the best" interpretation, only a reasonable one. Smiley v. Citibank, 517 U.S. 735, 744-45 (1996).

SUMMARY OF ARGUMENT

Both the Implementation Rule and NSR Rule specify NAAQS implementation requirements for $PM_{2.5}$ nonattainment areas pursuant to subpart 1 of Title I, Part D of the Act. This is consistent with EPA's conclusion in 1997 that the Act makes subpart 4 applicable to implementation of the PM_{10} NAAQS, but not the $PM_{2.5}$ NAAQS. Petitioners' challenge to this interpretation has long since become untimely, as it should have been raised in response to the 1997 PM

NAAQS rule and the associated preamble statement in which EPA first published that interpretation. Challenges to EPA's similar conclusion concerning the 8-hour ozone NAAQS (i.e., that implementation of that NAAQS should proceed under subpart 1 rather subpart 2 of Title I, Part D), were not only timely raised in 1997 but were litigated to the merits before the Supreme Court in Whitman - the *same* case in which various challenges to the 1997 $PM_{2.5}$ and PM_{10} NAAQS were litigated. Any dispute over whether subpart 4 should govern $PM_{2.5}$ NAAQS implementation was no less ripe for judicial review in 1997. Therefore, the instant petition is untimely with respect to this issue.

If the Court reaches the merits, it should defer to EPA's reasonable interpretation of the statute. The text of subpart 4 expressly refers to the "PM-10" NAAQS as being subject to its provisions. Importantly, Congress was aware when it wrote these provisions that the "PM-10" NAAQS was *not* the only potential NAAQS for particulate matter. Had Congress intended subpart 4's provisions to apply globally to any and all separate standards EPA might establish in the future for particulate matter, it could easily have substituted the all-encompassing phrase "particulate matter" for "PM-10," which would have been consistent with the type of language it used in the other subparts (e.g., the provisions of subpart 2 refer generally to "ozone" nonattainment areas as being subject to their requirements). EPA's interpretation that subpart 4 applies only to the PM_{10} NAAQS is thus

consistent with how Congress wrote the statute, and it is further supported by the legislative history of the 1990 Amendments. Finally, to the extent the Court finds any ambiguity in the text, EPA's interpretation is at least a "permissible" reading of the statute. Therefore, it must be upheld.

Petitioners also challenge EPA's decision in the Implementation and NSR Rules to adopt a rebuttable presumption that emissions of ammonia and volatile organic compounds ("VOCs") need not be regulated as $PM_{2.5}$ precursors for purposes of $PM_{2.5}$ nonattainment planning and NSR. They do not dispute, however, that 42 U.S.C. § 7602(g) gave EPA the discretion to adopt such a presumption. Contrary to Petitioners' argument, EPA identified a reasonable basis for its decision, explaining that there was significant uncertainty concerning the contribution of ammonia and VOC emissions to $PM_{2.5}$ concentrations in many nonattainment areas, as well as the potential that ammonia emissions reductions in certain areas could lead to adverse health impacts. EPA also explained how either the State or EPA could reverse the presumption with a technical demonstration that ammonia or VOC emissions "significantly contribute" to $PM_{2.5}$ concentrations in a particular nonattainment area. EPA's scientific judgment in this matter merits heightened deference, and the Rules' treatment of ammonia and VOCs should be upheld as a reasonable exercise of EPA's discretion under 42 U.S.C. § 7602(g).

For these reasons and those stated below, the Court should deny the petition for review. Moreover, if the Court grants the petition, it should deny Petitioners' extraordinary request that the Court impose a one-year deadline on EPA's remand proceedings.

ARGUMENT

I. SUBPART 4 EXPRESSLY APPLIES TO THE PM_{10} NAAQS AND DOES NOT SPECIFY NAAQS IMPLEMENTATION REQUIREMENTS FOR $PM_{2.5}$.

A. Petitioners' Challenge Is Untimely.

EPA originally announced its decision to implement the $PM_{2.5}$ NAAQS under subpart 1 rather than subpart 4 in 1997, in the preamble to the final rule establishing that NAAQS. Supra at 13. In ATA I and Whitman, respectively, both this Court and the Supreme Court reached the merits of petitioners' challenges to analogous statements in the preamble to the 1997 *ozone* NAAQS final rule announcing EPA's decision to implement that NAAQS under subpart 1 rather than subpart 2. Supra at 14. Furthermore, the Supreme Court considered and expressly rejected EPA's arguments that those preamble statements did not constitute final agency action and that the subpart 1/subpart 2 issue was not yet ripe for review. Whitman, 531 U.S. at 477-80. But none of the parties in that litigation challenged EPA's decision to implement the separate *$PM_{2.5}$* standard under subpart 1, including *after* the Whitman opinion was issued and the case was remanded to this

Court for (among other things) further judicial review of the $PM_{2.5}$ NAAQS. See generally ATA III, 283 F.3d 355.[6] Petitioners did not seek review of this issue until commencing the present action challenging the Implementation Rule (and subsequently the NSR Rule), which means they are a decade too late. See 42 U.S.C. § 7607(b)(1) (petition for judicial review of final action of the Administrator must be filed within 60 days after publication in Federal Register).

EPA expressly stated in its 2007 Response to Comments that comments on the subpart 1/subpart 4 issue were untimely, noting "that the commenters should have raised their concerns with implementation of the $PM_{2.5}$ NAAQS under Subpart 1, rather than Subpart 4, at the time EPA issued the NAAQS in 1997." 2007 RTC at 12 (JA 351). EPA observed that the Whitman Court's analysis concerning the 1997 ozone NAAQS rule preamble statements was equally applicable to the statements in the $PM_{2.5}$ NAAQS rule preamble, and further noted: "EPA's conclusion that the implementation of the $PM_{2.5}$ standard is governed by the provisions of subpart 1 of Part D, not subpart 4, is consistent with the analysis and views expressed by the Agency over nine years ago in final rulemaking when it first promulgated the $PM_{2.5}$ NAAQS." Id.

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[6] By then at the very latest, if not earlier, any interested party would have been on notice regarding the ripeness of the subpart 1/subpart 4 issue based on the Whitman holding.

This Court has long held that "[w]hen an agency invites debate on some aspects of a broad subject, . . . it does not automatically reopen all related aspects including those already decided." National Ass'n of Reversionary Prop. Owners v. Surface Transp. Bd., 158 F.3d 135, 142 (D.C. Cir. 1998). Instead, the statutory time limit for review may only be reopened with respect to issues that the Agency "either explicitly or implicitly reconsider[s]" in a subsequent rulemaking. West Virginia v. EPA, 362 F.3d 861, 872 (D.C. Cir. 2004). Here, nothing in EPA's 2005 Proposed Rule preamble suggested that the Agency was reevaluating whether subpart 4 applies to the $PM_{2.5}$ NAAQS. See 70 Fed. Reg. at 66,002, 66,036-37. Rather, EPA merely *re-stated* its prior conclusion that only subpart 1 applies, and later gave more explanation in response to unsolicited comments. Supra at 14-16.

Such mere restatement of prior conclusions does not re-open an issue. As this Court repeatedly has stated,

> if a party were allowed to "goad an agency into a reply, and then sue on the grounds that the agency . . . re-opened the issue," American Iron & Steel Inst. v. EPA, 886 F.2d 390, 398 (D.C. Cir. 1989), the agency's thorough answer would put it at risk of "reopening," while a taciturn response would put it at risk of being faulted for acting without reasoned decisionmaking.

American Road & Transp. Builders Ass'n v. EPA, 588 F.3d 1109, 1114 (D.C. Cir. 2009) (citation omitted). Since EPA did not *reevaluate* the issue of subpart 4 applicability, the reopener doctrine does not apply. Accord NRDC v. EPA, 571

F.3d 1245, 1264-66, 1269-70 (D.C. Cir. 2009) (petition for review of "Phase 2 Implementation Rule" for the 1997 ozone NAAQS was untimely to the extent it challenged certain NSR-related regulatory policies that were originally established in earlier rulemakings and were not reconsidered).

Although "[u]nder some circumstances an issue may be 'deemed to have been constructively reopened even though it was not actually reopened' in a literal sense," those circumstances are not present here. NRDC, 571 F.3d at 1266 (quoting Kennecott Utah Copper Corp. v. DOI, 88 F.3d 1191, 1214 (D.C. Cir. 1996)). "A constructive reopening occurs if the revision of accompanying regulations significantly alters the stakes of judicial review as the result of a change that could [not have] been reasonably anticipated." NRDC, 571 F.3d at 1266 (internal quotation omitted). In Kennecott, for example, the Court found that certain existing regulations "may not have been worth challenging" originally, but were constructively reopened when the revision of related regulations "gave them a new significance." 88 F.3d at 1227. But here, unlike Kennecott, the precise question Petitioners seek to present now – whether subpart 4 or subpart 1 governs implementation of the $PM_{2.5}$ NAAQS – clearly was ripe for review in 1997 (or, at the very latest, in 2001 following Whitman). Moreover, there is no reason to think the "significance" of the issue was any less evident at that time, since the parallel

question of whether subpart 2 governs implementation of the 1997 ozone NAAQS was litigated to the merits before the Supreme Court.

Finally, Petitioners may argue that they should be allowed to pursue their challenge despite its untimeliness because they are contending that EPA's NAAQS implementation approach is unlawful. But such a claim may be raised outside of a statutory limitations period only "by filing a petition for amendment or rescission of the agency's regulations, and challenging the denial of that petition." Environmental Defense v. EPA, 467 F.3d 1329, 1333 (D.C. Cir. 2006); see also Motor Equip. Mfrs. Ass'n v. Nichols, 142 F.3d 449, 460 (D.C. Cir. 1998) (60-day filing period under 42 U.S.C. § 7607(b)(1) is jurisdictional and may not be enlarged by the courts); NRDC, 571 F.3d at 1265 (same).

Accordingly, the instant petition should be dismissed as untimely with respect to the issues presented in Argument I of Petitioners' brief (pp. 17-29). If the Court nonetheless reaches the merits, it should deny the petition for the additional reasons stated below.

B. Because the Plain Text of Subpart 4 Makes Clear That It Applies Only to the PM_{10} NAAQS, EPA's Interpretation Should Be Upheld under *Chevron* Step One.

As noted above, subpart 1 sets forth provisions regarding classifications and attainment dates that apply to all nonattainment areas except those "for which [requirements] are specifically provided for under other provisions of this part."

42 U.S.C. § 7502(a)(1)(C), (2)(D). Subpart 1 also contains NAAQS implementation requirements that apply generally to all nonattainment areas, except where modified by subpart 2, 3, 4 or 5. E.g., id. § 7502(c)(1)-(9).

Subpart 4 is titled "Additional Provisions for Particulate Matter Nonattainment Areas," but the operative provisions of subpart 4 make no reference to "particulate matter" and do not actually prescribe requirements for *all* particulate matter nonattainment areas. Instead, the text expressly and repeatedly refers to "PM-10" and "PM-10 nonattainment areas." Supra at 11 (citing examples). As EPA noted in its Response to Comments, "[t]he statute explicitly refers to 'PM-10' in the operative provisions across the board, from initial classifications . . . to attainment dates . . . to nonattainment plan requirements . . . to milestone requirements . . . to the consequences of failure to attain . . . ." 2007 RTC at 10 (JA 349); 42 U.S.C. §§ 7513(a), (c), 7513a(a)-(d). "Indeed, there are more than thirty separate references to 'PM-10' throughout the three statutory sections that comprise Subpart 4." 2007 RTC at 10 (JA 349). Moreover, "[i]n the relatively few subsections that do not explicitly include the term 'PM-10,' it is undeniable from the context that they implicitly refer to PM-10, whether by internal cross-

reference or by juxtaposition with adjoining provisions." Id.; see, e.g., 42 U.S.C. § 7513a(c)(1)-(2).[7]

"PM-10" is defined in section 302(t) of the Act to mean "particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers," 42 U.S.C. § 7602(t). Petitioners suggest that because particles meeting EPA's regulatory definition of "$PM_{2.5}$" necessarily have a diameter less than or equal to 10 micrometers, subpart 4's references to "PM-10" should be deemed to apply to the $PM_{2.5}$ NAAQS. See Pet. Br. at 17-18. However, subpart 4 does not merely refer to "PM-10," but rather contains requirements that expressly are based upon the form of the PM_{10} NAAQS.[8] Specifically, subpart 4 allows attainment date extensions for "moderate" PM_{10} nonattainment areas only if (among other conditions) "no more than one exceedance of the 24-hour [NAAQS] level for PM-10 has occurred in the area in the year preceding the Extension Year, and the annual mean concentration of PM-10 in the area for such year is less than or equal to the standard level." 42 U.S.C. § 7513(d)(2). These criteria precisely track the form of

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[7] The title of subpart 4 thus carries no weight in construing the subpart's applicability. See Whitman, 531 U.S. at 483 (where statutory text is clear, it "eliminates the interpretive role of the title, which may only shed light on some unambiguous word or phrase in the statute itself") (internal quotation and alteration omitted).

[8] As explained above, form is one of four key elements of a NAAQS, and is the air quality statistic used as a basis for determining compliance with a standard. Supra at 8 n.1.

the 1987 24-hour and annual PM_{10} standards. See 2007 RTC at 10-11 and n.1 (JA 349-50). Thus, subpart 4 is properly read as imposing implementation requirements on a specific set of standards – the PM_{10} standards. See 2007 RTC at 11 (JA 350) ("Given the wording of provisions of Subpart 4, EPA does not believe that Congress intended the provisions to apply to any and all NAAQS for particulate matter that EPA might have in the future, particularly those that might reflect different size particles or have a different form.")

Moreover, in the rulemaking that culminated in the 1987 PM_{10} NAAQS, EPA had considered whether to establish a separate NAAQS for fine particles, using $PM_{2.5}$ as the indicator. See 52 Fed. Reg. at 24,639 (observing that the fine and coarse fractions "tend to have different origins and composition," but explaining that EPA had declined to follow several commenters' suggestion to adopt a separate $PM_{2.5}$ standard). Although EPA decided not to establish a $PM_{2.5}$ standard in 1987, it retained the discretion to do so in the course of future NAAQS reviews if necessary to protect public health and welfare with an adequate margin of safety. It must be presumed that Congress was aware of this possibility, just as it was aware that prior to 1987, the particulate matter NAAQS had a TSP indicator rather than a PM_{10} indicator. Supra at 7 (explaining "TSP").[9/]

[9/] Cf. Community Futures Trading Comm'n v. Schor, 478 U.S. 833, 845-46 (1986) (Congress is presumed to be aware of agency positions or interpretations set forth in regulation).

Notably, the Act's 1990 amendments required continued implementation of that TSP standard: "Any designation for particulate matter (measured in terms of [TSP]) that the Administrator promulgated pursuant to this subsection (as in effect immediately before November 15, 1990) shall remain in effect . . . until the Administrator determines that such designation is no longer necessary . . . ." 42 U.S.C. § 7407(d)(4)(B). As EPA observed in its Response to Comments, "[h]ad Congress intended Subpart 4 to cover all possible particulate matter standards, past or future, actual or potential, it would not have needed to provide for this separate treatment for TSP." 2007 RTC at 11 (JA 350).

Furthermore, "[h]ad Congress meant to require EPA to implement any future particulate matter standard under subpart 4 it could have easily used the general term 'particulate matter,' rather than the specific term 'PM-10,' in the provisions of the subpart, rather than only in the title . . . ."). 2007 RTC at 13 (JA 352). Instead, subpart 4 makes repeated reference to "PM-10" and even more specifically to the form of the PM_{10} NAAQS, as shown above. Among all of the subparts that impose NAAQS implementation requirements additional to those in subpart 1, subpart 4 is the *only* one in which the text of the operative provisions consistently refers to a specific NAAQS such as PM-10 instead of generally to an ambient air pollutant. Compare 42 U.S.C. §§ 7513-13b (subpart 4 requirements for "PM-10"), with id. §§ 7511-11f (subpart 2 provisions are expressed as NAAQS implementation

requirements for "ozone"), 7512-12a (subpart 3 provisions are expressed as requirements for "carbon monoxide"), and 7514-14a (subpart 5 provisions are expressed as requirements for "sulfur oxides, nitrogen dioxide, or lead"). Congress could have drafted subpart 4 in a manner identical to all of the other subparts by using the term "particulate matter" in the text of subpart 4's operative provisions. It chose instead to refer specifically to "PM-10," and that choice must be regarded as meaningful; "[i]t is generally presumed that Congress acts intentionally and purposely when it includes particular language in one section of a statute but omits it in another." South Coast Air Quality Mgmt. Dist. v. EPA, 472 F.3d 882, 894 (D.C. Cir. 2006) (internal quotation omitted); see, e.g., City of Chicago v. Environmental Def. Fund, 511 U.S. 328, 337-38 (1994).

C. Whitman's Analysis of Subpart 2 Is Inapplicable Because the Text of Subpart 4 Materially Differs From That of Subpart 2.

Subpart 4 differs from subpart 2 in several key respects. Therefore, EPA's reading of subpart 4 is not foreclosed by Whitman's holding that implementation of the 1997 ozone NAAQS is governed at least in part by subpart 2. See Pet. Br. at 26-29.

In 1997, EPA determined that the existing ozone standards – which were based on a "design value" (i.e., method for determining compliance) that measured ozone concentrations over a 1-hour sampling period, and set an annual compliance

level of 0.12 parts per million – were not adequate to protect public health based on evidence linking prolonged ozone exposures (six to eight hours) to adverse health effects. Accordingly, EPA promulgated a more protective, revised standard based on an 8-hour design value and an annual compliance level of 0.08 parts per million. 62 Fed. Reg. at 38,859. The pre-existing and revised standards were commonly referred to as the "1-hour" and "8-hour" ozone NAAQS, respectively. EPA planned to implement the 8-hour standard exclusively under subpart 1. Id. at 38,884-85.

Because the Act states that subpart 1's provisions on nonattainment area classifications and attainment dates "shall not apply with respect to nonattainment areas for which [classifications and attainment dates] are specifically provided under" other subparts, 42 U.S.C. § 7502(a)(1)(C), (2)(D), in Whitman the Court examined whether subpart 2 "provides for" the classification of ozone nonattainment areas. 531 U.S. at 481-82. Central to the Court's analysis was Table 1 in 42 U.S.C. § 7511(a)(1), which "defines five categories of ozone nonattainment areas and prescribes attainment deadlines for each." Whitman, 531 U.S. at 482. The Court concluded that subpart 2 "funnels all [ozone] nonattainment areas into the table for classification" by "declaring that '[e]ach area designated nonattainment for ozone . . . shall be classified at the time of such designation, under table 1, by operation of law,'" and by providing specific

calendar deadlines for attainment for each classification listed in the table. Whitman, 531 U.S. at 482 (quoting 42 U.S.C. § 7511(a)(1)).

Although the title of 42 U.S.C. § 7511(a)(1) is "Classification and attainment dates for 1989 nonattainment areas," the text makes clear that Table 1 applies not only to areas that were in nonattainment in 1989, but also to areas that later become designated as nonattainment for ozone. See 42 U.S.C. § 7511(b)(1) ("Any area that is designated attainment or unclassifiable for ozone . . . and that is subsequently redesignated to nonattainment for ozone . . . shall, at the time of the designation, be classified by operation of law in accordance with table 1 . . . ."). Accordingly, the Court found that subpart 2 governs implementation of the 1997 revised ozone standard at least in part, although "some provisions of Subpart 2 [were] ill fitted to implementation of the revised standard" and thus implied "some limited applicability of Subpart 1" as well. Whitman, 531 U.S. at 483, 484.

For several reasons, the analysis in Whitman does not compel a similar conclusion here. First, the text of subpart 2 refers in general terms to "ozone" nonattainment areas as being subject to its requirements. In contrast, as shown above, virtually every provision of subpart 4 makes explicit reference to the "PM-10" NAAQS or "PM-10" nonattainment areas. Thus, the text of subpart 2 on its face applies to *any* "ozone" standard, whereas the text of subpart 4 applies specifically to the PM_{10} NAAQS. Accord 2007 RTC at 10 (JA 349).

Second, subpart 4 contains no provision that comprehensively prescribes classifications and attainment dates for all particulate matter nonattainment areas in the way that 42 U.S.C. § 7511 and Table 1 do for ozone nonattainment areas. Rather, the classification and attainment date requirements in 42 U.S.C. § 7513 apply specifically to areas "designated nonattainment for PM-10," and the statute explicitly directs EPA to continue implementing a *different* particulate matter NAAQS – the TSP standard – separately from the PM_{10} NAAQS implementation scheme. See 42 U.S.C. § 7407(d)(4)(B). Thus, unlike subpart 2, it is apparent from the text of subpart 4 that "Congress did not intend Subpart 4 to cover all possible standards for particulate matter." 2007 RTC at 11 (JA 350).

Finally, the Whitman Court was principally concerned that by replacing the 1-hour ozone NAAQS with an 8-hour ozone NAAQS and implementing the latter standards exclusively under subpart 1, EPA's approach would have rendered subpart 2 entirely meaningless. See 62 Fed. Reg. at 38,894 (describing conditions under which 1-hour ozone NAAQS eventually would be revoked); 69 Fed. Reg. 23,951, 23,954 (Apr. 30, 2004) (modified revocation approach); Whitman, 531 U.S. at 484 ("Whatever effect may be accorded the gaps in Subpart 2 as implying some limited applicability of Subpart 1, they cannot be thought to render Subpart 2's carefully designed restrictions . . . utterly nugatory once a new standard has been promulgated."). "In contrast, EPA promulgated the $PM_{2.5}$ NAAQS as an

additional standard that did not replace the PM_{10} NAAQS." 2008 RTC at 27 (JA 539) (emphasis added). Thus, unlike Whitman, reading the operative provisions of subpart 4 to apply specifically and only to the PM_{10} NAAQS does not render subpart 4 a nullity, because EPA continues to maintain separate PM_{10} standards which are implemented in accordance with subpart 4's requirements. See 2007 RTC at 12 (JA 351) ("EPA has decided to retain the 24-hour PM-10 NAAQS, thus preserving a PM-10 NAAQS and an implementation regime for that NAAQS governed by subpart 4.") (citing 71 Fed. Reg. at 61,202); see also 75 Fed. Reg. 39,366, 39,369 (July 8, 2010) (partially disapproving SIP submission for the Imperial Valley PM_{10} nonattainment area due to non-compliance with the "best available control measures" requirement of 42 U.S.C. § 7513a(b)(1)(B)). In short, EPA's approach fulfills the Act's directives on implementation of the PM_{10} NAAQS as well as its command that any NAAQS not otherwise specifically provided for – such as the $PM_{2.5}$ NAAQS – must comply with subpart 1.

D. Even If the Court Finds the Statutory Text Ambiguous, Legislative History Supports EPA's Reading.

If the Court finds the statute to be clear in providing that subpart 4 specifically applies to the PM_{10} NAAQS, there is no need to resort to legislative history to divine Congress' intent. See, e.g., Donnelly v. FAA, 411 F.3d 267, 272 (D.C. Cir. 2005) ("[W]e need not resort to legislative history where the statute

itself is clear."); Halverson v. Slater, 129 F.3d 180, 187 and n.10 (D.C. Cir. 1997) ("[O]rdinarily we have no need to refer to legislative history at Chevron step one . . . ."); Engine Mfrs. Ass'n v. EPA, 88 F.3d 1075, 1088 (D.C. Cir. 1996) ("The plain meaning of legislation should be conclusive, except in the rare cases in which the literal application of a statute will produce a result demonstrably at odds with the intentions of its drafters.") (internal quotation and alteration omitted).

However, even if the Court finds the statute to be ambiguous, the legislative history corroborates EPA's interpretation that Congress intended in subpart 4 to alter the implementation schedule and nonattainment area requirements specifically for the PM_{10} NAAQS. The statement of Representative Murtha quoted in Petitioners' Brief (at 18-19) confirms this understanding: "The Title I PM-10 provisions of H.R. 3030 somewhat reschedule the attainment dates that would otherwise apply *under the PM-10 standards as promulgated by EPA*." A Legislative History of the Clean Air Act Amendments of 1990 ("Legislative History") at 2996 (Comm. Print 1993) (JA 922) (emphasis added).

Petitioners are correct in observing that, in 1990, EPA had not yet promulgated a separate $PM_{2.5}$ NAAQS, and that the 1987 PM_{10} NAAQS had been designed to protect against the health and welfare risks (as understood based on the science available at the time) of both fine and coarse particles. Pet. Br. at 17-25. But as shown above, Congress was well aware that PM_{10} was not the only NAAQS

indicator used for particulate matter, since the TSP standard was also in effect. And Congress presumably understood that other particulate matter NAAQS using new indicators (such as the separate $PM_{2.5}$ NAAQS EPA had considered but decided not to establish in 1987) might be promulgated in the future. Despite this knowledge, Congress elected to impose implementation requirements specifically for "PM-10" rather than using the obvious alternative phrase – i.e., "particulate matter" – that would have encompassed any possible NAAQS indicator EPA might use in the future. Thus, it takes a substantial and unsupported leap of logic to conclude that, by imposing requirements for implementation of "the PM-10 standards as promulgated by EPA," Congress also intended to direct how a potential future "$PM_{2.5}$" NAAQS would be implemented.

Petitioners cite nothing in the legislative history that gives credence to their position. Primarily, they assert that because there is at least some overlap between the health risks and emission sources associated with $PM_{2.5}$ and PM_{10} pollution, Congress would have wanted a $PM_{2.5}$ NAAQS to be implemented in the same manner it expressly mandated for the PM_{10} NAAQS. See Pet. Br. at 21-25. The problem with this line of reasoning, however, is that one could just as easily argue that the *ozone* NAAQS should be subject to subpart 4's requirements because NO_x is a relevant precursor pollutant for both particulate matter and ozone. Compare, e.g., 42 U.S.C. § 7511a(b)(1)(A) (subpart 2 provision requiring NO_x and VOC

emission reductions in order to demonstrate "reasonable further progress" towards attainment of the ozone NAAQS in moderate ozone nonattainment areas), with Legislative History at 2501 (identifying "nitrates" and other secondary particles as a source of PM_{10} pollution). Therefore, this is not a reliable basis for determining Congress' intent regarding the applicability of subpart 4.[10/]

E. EPA's Reading of the Act Is, at Minimum, a "Permissible" Interpretation Entitled to Deference under *Chevron* Step Two.

As EPA explained throughout the course of the rulemaking, and for the reasons discussed above in Arguments I.B and C, EPA believes the statute is clear and unambiguous in requiring that PM_{10} NAAQS implementation be governed by subpart 4 and that $PM_{2.5}$ NAAQS implementation be governed by subpart 1. See 70 Fed. Reg. at 66,037 ("We do not believe the Act gives us the discretion to promulgate a lower major source threshold for pollutants such as $PM_{2.5}$ that are only subject to Subpart 1 of part D of the Act."); 72 Fed. Reg. at 20,599 ("EPA . . . agrees with comments stating that subpart 4 on its face applies only to the PM_{10} standard."); 73 Fed. Reg. at 28,332 ("Subpart 4 was added to the Act by Congress specifically to address the PM_{10} NAAQS."). If, however, the Court concludes that

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[10/] Although EPA emphasized the differences between $PM_{2.5}$ and PM_{10} pollution in response to comments asserting that $PM_{2.5}$ was merely a "subset" of PM_{10}, see 2007 RTC at 13-14 (JA 352-53), that was not EPA's primary rationale for concluding that subpart 4 applies only to PM_{10}. Rather, EPA based its interpretation on the statutory text. See 2007 RTC at 9-12 (JA 348-51); supra Arguments I.B and C.

the statute is ambiguous, it should defer to EPA's interpretation of the statute pursuant to Chevron step two. Even if the Court disagrees that EPA's reading is the *only* plausible way to interpret the text of subpart 4, at the very least it is a "permissible" interpretation for the reasons explained in Arguments I.B and C. Additionally, it is supported by legislative history as shown in Argument I.D.

This is *not* a case where EPA advances an interpretation grounded in policy preferences that are at odds with Congress' clearly expressed intent. See Engine Mfrs., 88 F.3d at 1089 (agency may not avoid "Congressional intent clearly expressed in the text simply by asserting that its preferred approach would be better policy"). For example, in South Coast, where the Court reviewed EPA's rule addressing (among other things) how subpart 1 and 2 would interact for purposes of implementing the 8-hour ozone NAAQS, the Court described "[t]he main thrust of EPA's interpretation" as an argument that subpart 1 "is best because it maximizes EPA's ability to tailor a SIP to the situation of that state." 472 F.3d at 894. The Court rejected that rationale because it found that EPA had failed to "explain how its interpretation fits with the 1990 Amendments." Id. Here, by contrast, EPA's interpretation is based directly on the language Congress elected to use in drafting subpart 4, which differs materially from the key subpart 2 provisions that drove the courts' analyses in Whitman and South Coast. In this case, EPA's interpretation is entirely consistent with both the text and structure of

the statute, and it therefore constitutes, at a minimum, a "permissible construction" to which the Court should defer. Chevron, 467 U.S. at 843.[11/]

II. EPA REASONABLY DETERMINED THAT AMMONIA AND VOLATILE ORGANIC COMPOUNDS SHOULD NOT BE PRESUMPTIVELY SUBJECT TO CONTROL REQUIREMENTS IN ALL $PM_{2.5}$ NONATTAINMENT AREAS.

Petitioners also claim that EPA acted arbitrarily and capriciously in adopting a rebuttable presumption that $PM_{2.5}$ nonattainment area SIPs need not include controls on ammonia and VOC emissions. Pet. Br. at 30-33. Contrary to Petitioners' contention, EPA reasonably exercised its discretion under 42 U.S.C. § 7602(g) to "identif[y]" which emissions should, or should not, be considered "precursors" for purposes of $PM_{2.5}$ attainment planning and NSR. Moreover, EPA articulated a reasonable explanation for treating ammonia and VOC emissions differently than sulfur dioxide ("SO_2") emissions, for which States are required to evaluate emissions controls in all $PM_{2.5}$ nonattainment areas, and emissions of oxides of nitrogen ("NO_x"), for which States presumptively must evaluate controls.

[11/] Petitioners' contention (Pet. Br. at 29) that subpart 4 should be construed to apply to the PM 2.5 NAAQS because it would lead to stricter control requirements is, in the context of this case, precisely the type of construction that the Court found inadequate in South Coast. That is, it emphasizes a policy rationale to support an interpretation for which there is no support in the statutory text.

A. EPA Indisputably Has Discretion under 42 U.S.C. § 7602(g) to Determine Which Emissions Should Be Identified As "Precursors" for Specific Regulatory Purposes Such As NAAQS Implementation Pursuant to Subpart 1.

The Act's provision defining the term "air pollutant" gives EPA discretionary authority to determine which emissions constitute "precursors" for particular regulatory purposes. See 42 U.S.C. § 7602(g). This provision states as follows:

> The term "air pollutant" means any air pollutant agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, spent nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. *Such term includes any precursors* to the formation of any air pollutant, *to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term "air pollutant" is used*.

Id. (emphasis added).

As EPA explained during the rulemaking, the second sentence of this definition "explicitly authorizes the Administrator to identify and regulate precursors as air pollutants under other parts of the CAA," and the second clause of that second sentence "indicates that the Administrator has discretion to identify which pollutants should be classified as precursors for particular regulatory purposes." 70 Fed. Reg. at 65,998; accord 72 Fed. Reg. at 20,590, and 73 Fed. Reg. at 28,325-26. Hence, even if a particular substance is known to contribute to the formation of a criteria air pollutant – and thus constitutes a "precursor" from a

scientific perspective – 42 U.S.C. § 7602(g) contemplates that the substance might not be "*identif[ied]* . . . as an air pollutant for *all* regulatory purposes, where it can be demonstrated that various Clean Air Act programs address different aspects of the air pollutant problem." 70 Fed. Reg. at 65,998 (emphasis added). Similarly, section 7602(g) indicates that EPA is not required to "treat all precursors of a particular pollutant the same under any one program when there is a basis to distinguish between such precursors." 70 Fed. Reg. at 65,998; accord 70 Fed. Reg. 24,280 (May 6, 2005) (transportation conformity rulemaking adopted different approaches for some $PM_{2.5}$ precursors based on the degree to which the various precursors emitted by transportation-related sources contributed to the $PM_{2.5}$ air quality problem); cf. Association of Irritated Residents v. EPA, 423 F.3d 989, 996-97 (9th Cir. 2005) (upholding EPA's approval of PM_{10} SIP that included controls on NOx but not ammonia, based on EPA's finding that ammonia did not contribute significantly to PM_{10} concentrations in the nonattainment area).[12/]

[12/] 42 U.S.C. § 7513a(e), which was at issue in Association of Irritated Residents, provides that control requirements "applicable under plans in effect under this part . . . shall also apply to major stationary sources of PM-10 precursors, except where the Administrator determines that such sources do not contribute significantly to PM-10 levels which exceed the standard in the area." Id.; see Association of Irritated Residents, 423 F.3d at 996. However, for the reasons stated in Argument I, this provision (like other subpart 4 provisions) does not apply to $PM_{2.5}$ NAAQS implementation. Petitioners acknowledge that 42 U.S.C. § 7602(g) does not impose a mandatory presumption in favor of regulating ammonia and VOC as $PM_{2.5}$ attainment plan and NSR precursors. See Pet. Br. at 30.

Petitioners do not challenge EPA's interpretation of section 7602(g). Instead, they argue that EPA's decision to adopt rebuttable presumptions against control requirements for ammonia and VOCs was arbitrary and capricious. Pet. Br. at 30-33. The record shows otherwise, as discussed further below.

B. EPA Reasonably Determined That Ammonia and VOC Emissions Should Be Subject to $PM_{2.5}$ Nonattainment Planning and NSR Requirements Only Where Those Emissions Are Demonstrated to Significantly Contribute to $PM_{2.5}$ Concentrations.

EPA's final rules establish: (1) a requirement that States address SO_2 for purposes of $PM_{2.5}$ attainment planning and NSR in all areas; (2) a presumption that States must also address NO_x for these purposes, which may be reversed by a technical demonstration showing that NO_x emissions do not significantly contribute to $PM_{2.5}$ concentrations in a particular area; and (3) a presumption that States need not initially address ammonia and VOCs for these purposes, which again may be reversed by a technical demonstration indicating that consideration of ammonia or VOCs as a $PM_{2.5}$ attainment plan and NSR precursor would be appropriate for a particular area. EPA intended the presumptions, "which should be valid for the majority of areas, to reduce the overall burden on States of documenting which pollutants are attainment plan precursors." 2007 RTC at 61 (JA 400).

1. EPA's policies for SO_2 and NO_x

In the Implementation Rule, EPA determined that States would be required to address SO_2 as a $PM_{2.5}$ attainment plan precursor and evaluate SO_2 for possible control measures in all areas. 72 Fed. Reg. at 20,595. EPA later adopted a similar policy in the NSR Rule. 73 Fed. Reg. at 28,327. EPA explained that this policy was appropriate because SO_2 "is a significant contributor (e.g., ranging from 9 percent to 40 percent) to $PM_{2.5}$ concentrations in nonattainment areas and to other air quality problems in all regions of the country." 72 Fed. Reg. at 20,595; see also 70 Fed. Reg. at 65,993, Table 2 ($PM_{2.5}$ chemical composition data by region). Even after accounting for the regional reductions in sulfur dioxide emissions that EPA was then projecting would occur in the eastern United States as a result of implementing the Clean Air Interstate Rule ("CAIR"), 70 Fed. Reg. 25,162 (May 12, 2005), "sulfate [was] still projected to be a key contributor to $PM_{2.5}$ concentrations in the future." 72 Fed. Reg. at 20,595. Moreover, EPA noted that SO_2 emissions "lead to sulfate formation on both regional and local scales," which necessitates consideration of area-specific controls on local sulfur dioxide sources in addition to regional measures such as CAIR. Id. Therefore, for purposes of $PM_{2.5}$ NAAQS attainment planning, "each State will need to consider whether controls on local SO_2 sources would be cost-effective and would be needed to attain expeditiously." Id.; see 73 Fed. Reg. at 28,327 (parallel approach for NSR).

In discussing its policy for NO_x emissions, EPA noted that "[t]he sources of NO_x are numerous and widespread," and that "nitrate concentrations vary significantly across the country." 72 Fed. Reg. at 20,594. EPA also noted that nitrate formation in the atmosphere – a process that involves a reaction between nitric acid and other species such as ammonia (thereby creating ammonium nitrate) – is "dependent upon the relative degree of nearby SO_2 emissions because ammonia reacts preferentially with SO_2 over NOx." Id.; see also 70 Fed. Reg. at 65,997 ("The NARSTO Fine Particle Assessment[13/] indicates that sulfates form preferentially over nitrates . . . ."). EPA expected NO_x emission reductions to reduce $PM_{2.5}$ concentrations in "most" areas. 72 Fed. Reg. at 20,594. However, it was possible that "in a limited number of areas, NO_x control would result in increased $PM_{2.5}$ mass by disrupting the ozone cycle and leading to increased oxidation of SO_2 to form sulfate particles, which are heavier than nitrate particles." Id. Therefore, rather than *universally* requiring that States address NO_x in all $PM_{2.5}$ nonattainment areas as it had done for SO_2, EPA used a presumptive approach under which States must address NO_x as a $PM_{2.5}$ attainment plan precursor "unless the State and EPA make a finding that NO_x emissions from sources in the State do

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[13/] North American Research Strategy for Tropospheric Ozone and Particulate Matter ("NARSTO"), "Particulate Matter Assessment for Policy Makers: A NARSTO Assessment" (2004), Dkt. No. EPA-HQ-OAR-2003-0062-0263 (JA 448-502).

not significantly contribute to $PM_{2.5}$ concentrations in the relevant nonattainment area." Id.; accord 73 Fed. Reg. at 28,328.

2. EPA reasonably addressed ammonia differently than SO_2 and NO_x by adopting a rebuttable presumption that ammonia is not a $PM_{2.5}$ attainment plan and NSR precursor.

In contrast to SO_2 and NO_x, EPA found that a different policy was appropriate for ammonia due to certain aspects of the complex and still not fully understood relationship between ammonia emissions and air quality. Among other things, EPA noted the potential of adverse environmental and health impacts in some areas if ammonia emissions were reduced. As EPA explained, "[a]mmonia serves an important role in neutralizing acids in clouds, precipitation and particles. In particular, ammonia neutralizes sulfuric acid and nitric acid, the two key contributors to [acid rain]." 70 Fed. Reg. at 65,997. Where concentrations of sulfate (with which ammonia reacts preferentially over nitrates, as noted above) are high, "decreasing ammonia emissions . . . can reduce $PM_{2.5}$ mass concentrations, but may also increase particle and precipitation acidity." Id. at 65,997 and n.38 (citing NARSTO Fine Particle Assessment at S-31 (Table S.4) (JA 481)). "An increase in particle acidity is suspected to be linked with human health effects and with an increase in the formation of secondary organic compounds" in the atmosphere. 72 Fed. Reg. at 20,591; accord 70 Fed. Reg. at 65,997; id. at 65,996

and n.30 (citing study by Jang, et al.). "Moreover, the relationship between ammonia and [the] sulfate-nitrate equilibrium may also impact [secondary organic aerosol ("SOA")] formation, although this link is not well understood." 70 Fed. Reg. at 65,997.

In addition to these potentially adverse effects of ammonia emissions reductions under certain atmospheric conditions, EPA also noted that there was substantial uncertainty in the available information concerning ammonia. EPA observed that the "[e]mission inventories for ammonia are considered to be among the most uncertain of any species related to PM," and that "[t]he control techniques for ammonia and the analytical tools to quantify the impact of reducing ammonia emissions on atmospheric aerosol formation are both evolving sciences." Id.

Given all of these factors, EPA explained in the Proposed Rule preamble that "it seems prudent to continue research on ammonia control technologies and the ammonia-sulfate-nitrate-SOA equilibrium before one undertakes broad national programs to reduce ammonia emissions." Id.; see also id. at 65,997/3 ("At this time . . . reducing SO_2 and NO_X will allow us to move with greater certainty towards achieving our nation's air quality goals."). The available data and analysis indicated that "there may be considerable ambiguity concerning the results of reducing ammonia emissions and in some cases, there may be undesired consequences of ammonia reductions." Id. at 65,997. At the same time, EPA

recognized that "as States and EPA develop a greater understanding over the coming years about the potential air quality effects of reducing ammonia emissions in specific nonattainment areas, it may be appropriate for ammonia reduction strategies to be included in future SIPs." Id. For these reasons, a policy requiring States to address ammonia in their $PM_{2.5}$ attainment planning area only where a technical demonstration supported such a requirement appeared to be the best fit, as it "showed consideration for the uncertainties about ammonia emissions inventories and about the potential efficacy of ammonia control measures by providing for a case-by-case approach." 72 Fed. Reg. at 20,591.

The final Implementation and NSR Rules maintained the approach EPA had proposed. EPA retained this approach because of "continued uncertainties regarding ammonia emission inventories and the effects of ammonia emission reductions." Id. at 20,592. Additionally, EPA observed that "data necessary to understand the atmospheric composition and balance of ammonia and nitric acid in an area are not widely available across $PM_{2.5}$ nonattainment areas, making it difficult to predict the results of potential ammonia emission reductions." Id. EPA further explained that "[a]mmonia reductions may be effective and appropriate for reducing $PM_{2.5}$ concentrations in selected locations, but in other locations such reductions may lead to minimal reductions in $PM_{2.5}$ concentrations and increased atmospheric acidity." Id. For these reasons, EPA remained of the view that

ammonia should be subject to the case-by-case policy approach it had proposed, which would "ensure[] that ammonia will be addressed in areas in which reductions will be beneficial, while avoiding potential disbenefits in other areas." 2007 RTC at 47 (JA 386); accord 73 Fed. Reg. at 28,330-31.

Given the state of the scientific understanding of ammonia's interaction with other chemicals in the processes described above, and the potential that ammonia emissions reductions in some areas might be ineffective in reducing $PM_{2.5}$ concentrations or even result in adverse health effects due to increased acidification, it was reasonable for EPA to adopt a case-by-case approach for ammonia rather than presumptively or categorically to require States to regulate ammonia emissions in all areas. Accordingly, the Court should defer to EPA's technical evaluation of the science and uphold this aspect of the final Implementation and NSR Rules. See NRDC, 571 F.3d at 1253-55 (upholding provision of 8-hr ozone NAAQS implementation rule that presumes the validity of "reasonably available control technology" ("RACT") determinations developed under the 1-hr ozone NAAQS, while allowing for case-by-case consideration of any information indicating that the prior RACT determination should be updated); National Wildlife Fed'n v. EPA, 286 F.3d 554, 566-67 (D.C. Cir. 2002) (upholding decision not to establish nationwide standards under the Clean Water Act for discharges of color pollution, where EPA found that "the potential for significant

aesthetic or aquatic impacts from color discharges is driven by highly site-specific conditions" and was thus better addressed in individual permits where necessary).

3. EPA also provided a reasonable explanation for adopting a rebuttable presumption that VOCs are not a $PM_{2.5}$ attainment plan and NSR precursor.

As EPA explained in the preamble to the Implementation Rule, "[t]he primary rationale for not including VOC as a $PM_{2.5}$ attainment plan precursor in every nonattainment area is the uncertainty regarding the contribution of anthropogenic VOCs to the formation of the organic carbon portion of fine particles." 72 Fed. Reg. at 20,593. "The organic component of ambient particles is a complex mixture of hundreds or even thousands of organic compounds [that] are either emitted directly from sources (i.e. primary organic aerosol) or can be formed by reactions in the ambient air (i.e. secondary organic aerosol, or SOA)." Id. at 20,592. These compounds include low molecular weight VOCs – which participate in the formation of secondary organic aerosol, sulfates and nitrates – and intermediate weight VOCs, which "often exhibit a range of volatilities and can exist in both the gas and aerosol phase at ambient conditions." Id. at 20,592-93.

EPA further explained that, "[d]espite significant advances in understanding the origins and properties of [secondary organic aerosol], it remains probably the least understood component of $PM_{2.5}$." Id. at 20,593. Scientific research thus far "ha[s] been able to quantify the concentrations of hundreds of organic compounds

representing only 10-20 percent of the total organic aerosol mass." Id.; cf. id. at 20,593/2 (noting that most research to date has been performed only in California). EPA thus "recognized that further research and technical tools are needed to better characterize emissions inventories for specific VOC compounds, and to determine the extent of the contribution of specific VOC compounds to organic PM mass." Id.

These factors supported the case-by-case approach EPA adopted for VOCs in the Implementation Rule, under which States are not required to address VOCs in their attainment plans and evaluate potential control measures for such pollutants "unless the State or EPA makes a technical demonstration that emissions of VOCs from sources in the State significantly contribute to $PM_{2.5}$ concentrations in a given nonattainment area." Id.; accord 73 Fed. Reg. at 28,328-29 (adopting same policy in NSR rule). As EPA explained in the NSR Rule preamble, "[w]here the effect of a pollutant's emissions on ambient $PM_{2.5}$ concentrations is subject to this degree of uncertainty, we do not have justification to establish a nationally-applicable presumption that the pollutant is . . . subject to [$PM_{2.5}$ NSR] requirements." 73 Fed. Reg. at 28,329; see also id. at 28,329/3 ("[W]e do not find it appropriate to utilize the same approach for NO_x because the scientific data and modeling analyses provide more certainty that NO_x emissions are a significant contributor to ambient $PM_{2.5}$ concentrations."). Because EPA articulated a

reasonable explanation, supported by information in the record, for applying the initial, rebuttable "presumed-out" approach to VOCs in the context of $PM_{2.5}$ attainment planning and NSR, this part of the Implementation and NSR Rules also should be upheld. See supra Argument II.B.2 (citing cases).

C. EPA's Rules Do Not Improperly Delegate the Decision to Regulate Ammonia or VOCs Solely to Each State's Discretion.

Petitioners' primary objection to EPA's treatment of ammonia and VOCs stems from the inaccurate premise that "the regulation of precursors [is] entirely dependent on the State's willingness to make a significant contribution demonstration." Pet. Br. at 32. In fact, EPA clearly stated that "[w]hile the rule establishes a presumption that ammonia and VOC[s] need not be regulated, States are required to address information brought to their attention during the planning and rule adoption process" that precedes the submission of their SIPs to EPA for approval. 2007 RTC at 33 (JA 372). Information brought to the State's attention by interested members of the public or otherwise submitted or developed during that process may rebut the presumption and support regulation of ammonia or VOC emissions in a particular $PM_{2.5}$ nonattainment area. See id. at 51 (JA 390) (Explaining that "[w]hile this policy does not require States to regulate ammonia in the first instance, it does require relevant information to be considered in the public

record during the SIP process, and requires States to use the weight of best available information to determine whether ammonia should be controlled.").

Moreover, EPA explicitly provided that it would review the validity of the presumptions for a given nonattainment area during its own rulemaking process when evaluating whether to approve a SIP submission. As the Agency explained, "EPA retains the ability to reverse a presumption in any area," 2007 RTC at 33 (JA 372), and has its own obligation to respond to comments during the SIP submission approval process that may indicate regulation of ammonia or VOC emissions in a particular nonattainment area. See 72 Fed. Reg. at 20,597. EPA thus made clear that "both EPA *and* the state or local agency have the obligation to ensure regulation of precursors which have been demonstrated to have significant contribution, including consideration of public comments." 2007 RTC at 43 (JA 382) (emphasis added); see also 72 Fed. Reg. at 20,596 (any technical demonstration by the State must be approved by EPA).

This Court previously has recognized that the public comment opportunities associated with SIP development and adoption at the state level and subsequent SIP approval by EPA provide a safeguard to ensure that the attainment planning process will include consideration of all pertinent information on a case-by-case basis. NRDC, 571 F.3d at 1254-55. There, the Court upheld EPA's decision in the "Phase 2" implementation rule for the 1997 8-hour ozone NAAQS to allow States

to presumptively rely on pre-existing 1-hour ozone RACT determinations except where new information showed that an old RACT determination was no longer valid. Id. Though the petitioners in that case argued that EPA should have revised the existing nationally-applicable RACT guidance as part of the 8-hour NAAQS implementation rule, this Court concluded that it was reasonable under the circumstances to forego revising the guidance and rely instead on a case-by-case approach to update the RACT analysis where appropriate. Id. The Court observed that "if additional information is presented during notice-and-comment rulemaking, both the state and EPA are required to consider that information as part of the rulemaking," id. at 1254, and that "persons disagreeing with a particular RACT certification can seek judicial review of a particular SIP approval." Id. at 1255. The same is true here with regard to any comments or supporting data submitted during the SIP development and SIP approval processes that may indicate the presumption against regulating ammonia and VOCs is not valid for a particular $PM_{2.5}$ nonattainment area.

Petitioners also claim that States may not regulate ammonia or VOCs regardless of whether available information rebuts the validity of the presumption for a particular nonattainment area, because of "various state laws that limit the ability of state officials to take environmental regulatory action beyond the bare minimum mandated by federal law." Pet. Br. at 33. However, EPA clearly stated

that "[w]here a finding is made by either a state *or* EPA [that ammonia or VOCs significantly contributes to $PM_{2.5}$ concentrations in a particular nonattainment area], ammonia or VOCs must then be regulated as appropriate." 2007 RTC at 51 (JA 390). "Since consideration of relevant data is required[,] EPA does not believe that a finding of significance would be more stringent than required by federal regulation," and thus it would apply in any State for which such a finding is made, "even those with limitations on their authority" as described by Petitioners. Id. "If the state or EPA makes a technical demonstration showing that VOC or ammonia significantly contribute, then this federal rule *requires* that the State assess whether there are controls for VOC or ammonia that constitute RACT or RACM, and whether there are reasonable measures to address intrastate transport" that would facilitate NAAQS attainment as expeditously as practicable. Id. at 41-42 (JA 380-81) (emphasis in original)[14]; cf. NRDC, 571 F.3d at 1253 ("When control technology is necessary to advance attainment, it is 'reasonably available'" within the meaning of the RACT requirement in 42 U.S.C. § 7502(c)(1) as construed by EPA).

Nor do the final rules permit States to avoid the potential necessity for regulating ammonia and VOCs in certain $PM_{2.5}$ nonattainment areas merely by

[14] "RACM" refers to the requirement under 42 U.S.C. § 7502(c)(1) that SIPs must "provide for the implementation of all reasonably available control measures [i.e., "RACM"] as expeditiously as practicable . . . ."

opting not to conduct technical demonstrations. EPA made clear that "[i]f information brought forward by commenters or the State in the SIP development process shows that the presumption in this rule for ammonia, VOC or NO_x is not technically justified for a particular nonattainment area," submittal of a technical demonstration is not optional. 72 Fed. Reg. at 20,597; accord 2007 RTC at 78 (JA 417).

In summary, 42 U.S.C. § 7602(g) authorizes EPA to establish a presumption either for or against identifying a substance as a "precursor" for a particular regulatory purpose. Here, EPA reasonably explained why the presumptions it adopted for ammonia and VOCs were appropriate starting points for its nationwide $PM_{2.5}$ NAAQS implementation approach, as well as how those presumptions could be reversed for individual areas through the use of technical demonstrations. Furthermore, EPA expressly provided procedural safeguards to ensure that interested parties can actively participate in the decisions concerning which precursors must be addressed in a given $PM_{2.5}$ nonattainment area. Accordingly, the Court should uphold the Implementation and NSR Rules.

III. IMPOSITION OF A DEADLINE ON REMAND WOULD BE INCONSISTENT WITH PRECEDENT AND IS UNNECESSARY.

Petitioners ask that, if their petition is granted, the Court not only remand the Implementation and NSR Rules to EPA, but also impose a one-year deadline for

such further administrative proceedings as may be necessary to respond to the Court's mandate, retain jurisdiction over the case, and require regular status reports from EPA. Pet. Br. at 33-36. In recent decisions, this Court repeatedly has declined such requests, correctly observing that, were EPA to delay unreasonably in responding to the Court's mandate, the appropriate remedy would be to petition the Court for a writ of mandamus. See, e.g., NRDC v. EPA, 489 F.3d 1364, 1375 (D.C. Cir. 2007) ("We decline to set a two year limit on EPA's proceedings on remand as the NRDC requests; mandamus affords a remedy for undue delay."); North Carolina v. EPA, 550 F.3d 1176, 1178 (D.C. Cir. 2008) (per curiam) (declining to set deadline for proceedings in response to remand of CAIR rule, and noting availability of mandamus relief if appropriate); cf. Portland Cement Ass'n v. EPA, 665 F.3d 177, 194 (D.C. Cir. 2011) (petitioners could file a citizen suit under 42 U.S.C. § 7604 in the event of unreasonable delay). Thus, even if the Court grants the instant petition, it should decline Petitioners' extraordinary request for a one-year deadline on remand, consistent with the above-cited decisions.

CONCLUSION

For the foregoing reasons, the Court should deny the petition for review.

Respectfully submitted,

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DATED: June 4, 2012

CERTIFICATE OF COMPLIANCE

I, the undersigned counsel for Respondent, hereby certify that the foregoing Brief complies with the applicable word limit under Federal Rule of Appellate Procedure 32(a)(7)(B) and this Court's orders, because this Brief contains approximately 13,991 words as calculated by Corel Wordperfect software, excluding the parts of the Brief exempted by Federal Rule of Appellate Procedure 32(a)(7)(B)(iii).

Dated: June 4, 2012

/s/ Brian H. Lynk
Brian H. Lynk

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that on June 4, 2012, I electronically filed the foregoing Final Brief of Respondent EPA using the Court's ECF system, and thereby caused it to be served by electronic transmission to the following counsel of record, all of whom are registered to use ECF in this Court:

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STATUTORY ADDENDUM

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