ORAL ARGUMENT NOT YET SCHEDULED

IN THE 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)

On Petition for Review of Final Actions of the U.S. Environmental Protection Agency

FINAL OPENING BRIEF OF ENVIRONMENTAL PETITIONERS

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Final Brief Dated: June 4, 2012

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

In accordance with Circuit Rule 28(a)(1), Petitioners in Case No. 08-1250 (and consolidated cases) Natural Resources Defense Council, Sierra Club, American Lung Association, and Medical Advocates for Healthy Air ("Environmental Petitioners") submit this certificate as to parties, rulings, and related cases.

(A) Parties, Intervenors and *Amici*

(i) Petitioners:

08-1250: Natural Resources Defense Council and Sierra Club

09-1102: Natural Resources Defense Council and Sierra Club

11-1430: American Lung Association, Medical Advocates for Healthy Air, Natural Resources Defense Council, and Sierra Club

(ii) Respondent: U.S. Environmental Protection Agency

(iii) 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

(iv) *Amici Curiae*: None

(B) Circuit Rule 26.1 Disclosure for Petitioners

Natural Resources Defense Council: Natural Resources Defense Council has no parent companies, and no publicly held company has a 10% or greater ownership interest in Natural Resources Defense Council.

Natural Resources Defense Council, a corporation organized and existing under the laws of the State of New York, is a national nonprofit organization dedicated to improving the quality of the human environment and protecting the nation's endangered resources.

Sierra Club: Sierra Club has no parent companies, and no publicly held company has a 10% or greater ownership interest in Sierra Club.

Sierra Club, a corporation organized and existing under the laws of the State of California, is a national nonprofit organization dedicated to the protection and enjoyment of the environment.

American Lung Association: American Lung Association has no parent companies, and no publicly held company has a 10% or greater ownership interest in American Lung Association.

American Lung Association, a nonprofit corporation organized and existing under the laws of the State of Maine, is a national organization dedicated to the conquest of lung disease and the promotion of lung health.

Medical Advocates for Healthy Air: Medical Advocates for Healthy Air has no parent companies, and no publicly held company has a 10% or greater ownership interest in Medical Advocates for Healthy Air.

Medical Advocates for Healthy Air is a California nonprofit organization consisting of medical professionals living in the San Joaquin Valley who regularly treat patients suffering from respiratory ailments caused or greatly exacerbated by the unhealthy levels of air pollution in the area. Its mission is to advocate for the expeditious attainment of state and federal health-based air quality standards in the San Joaquin Valley.

(C) Rulings Under Review

Environmental Petitioners challenge two final rules promulgated by EPA: EPA's "Clean Air Fine Particle Implementation Rule," 72 Fed. Reg. 20568 (April 25, 2007), and EPA's "Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers ($PM_{2.5}$)," 73 Fed. Reg. 28321 (May 16, 2008). Both rules relate to the implementation of the national ambient air quality standards for $PM_{2.5}$ adopted by EPA in 1997.

(D) Related Cases

Case No. 07-1227 (and consolidated cases) is a related case. Petitioners in those consolidated cases challenge EPA's "Clean Air Fine Particle Implementation Rule," 72 Fed. Reg. 20586, adopted on April 25, 2007. Because the central issues

for Environmental Petitioners in Case No. 07-1227 overlap with the central issues in this matter, and because this case is ready to proceed, on June 27, 2011, Environmental Petitioners and Respondent EPA filed an Unopposed Joint Motion to Govern Proceedings asking the Court to sever two specific issues from Case No. 07-1227 and provide for their consideration with Case No. 08-1250. *See* Unopposed Joint Motion to Govern Proceedings, Case No. 08-1250 (filed June 27, 2011) (Doc. # 1315468); *see also* Order, Case No. 08-1250 (filed Nov. 8, 2011) (Doc # 1340623) (granting Motion to Govern Proceedings).

DATED: June 4, 2012

Respectfully submitted,

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TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page(s)

FEDERAL CASES

STATUTES

FEDERAL REGULATIONS

FEDERAL REGISTER NOTICES

LEGISLATIVE HISTORY

OTHER AUTHORITIES

*Authorities upon which Petitioner chiefly relies are marked with asterisks.

GLOSSARY

Act	The federal Clean Air Act, 42 U.S.C. §§ 7410 *et seq.*
BACM	Best Available Control Measures
CAAAC	Clean Air Act Advisory Committee
EPA	United States Environmental Protection Agency
$\mu g/m^3$	Micrograms per cubic meter. A measure of concentration in the air.
µm	Micrometers
NAAQS	National Ambient Air Quality Standard
Nonattainment area	An area designated by EPA as failing to meet a national ambient air quality standard.
NOx	Oxides of nitrogen
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers. Also referred to as coarse or thoracic coarse particulate matter.
$PM_{2.5}$	Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers. Also referred to as fine particulate matter.
$PM_{2.5}$ Implementation Rule	"Clean Air Fine Particle Implementation Rule," 72 Fed. Reg 20586 (April 25, 2007) .
$PM_{2.5}$ NSR Rule	"Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers ($PM_{2.5}$)," 73 Fed. Reg. 28321 (May 16, 2008)
RACM	Reasonably Available Control Measures
RFP	Reasonable Further Progress
SIP	State Implementation Plan. A plan prepared by States, and submitted to EPA for approval, that identifies the actions and programs to be undertaken by the State and its subdivisions to implement their responsibilities under the Clean Air Act.
SO_2	Sulfur dioxide
Subpart 1	Subpart 1 of part D of title I of the Clean Air Act, 42 U.S.C. §§ 7501-7509a

Subpart 4	Subpart 4 of part D of title I of the Clean Air Act, 42 U.S.C. §§ 7513-7513b
TSP	Total Suspended Particulates. Typically defined to include particles up to 45 or 50 micrometers in diameter.
VOC	Volatile Organic Compound

JURISDICTIONAL STATEMENT

(A) Agency. Respondent U.S. Environmental Protection Agency ("EPA") has jurisdiction to prescribe such regulations as are necessary to carry out its functions under the federal Clean Air Act. 42 U.S.C. § 7601(a)(1). EPA's cited authority for the challenged rules is 42 U.S.C. §§ 7401, 7408, 7410, 7475, 7479, 7501-7509a, 7601 and 7602.

(B) Court of Appeals. This court has jurisdiction to review final actions taken by EPA under the Clean Air Act. 42 U.S.C. § 7607(b)(1).

(C) Timeliness. The petitions for review herein were timely filed on June 25, 2007, and July 15, 2008, within sixty days of publication of the final rulemakings challenged herein. *See* 42 U.S.C. § 7607(b)(1).

STATUTES AND REGULATIONS

Pertinent statutes and regulations appear in an addendum to this brief.

STATEMENT OF ISSUES

(1) Whether EPA acted unlawfully in adopting particulate matter implementation rules that do not comport with the provisions of subpart 4 of part D of title I of the Clean Air Act, 42 U.S.C. §§ 7513-7513b.

(2) Whether EPA acted unlawfully in waiving air pollution control and planning requirements for certain $PM_{2.5}$ precursors.

NATURE OF THE CASE, COURSE OF PROCEEDINGS, AND DISPOSITION IN THE AGENCY

Environmental Petitioners in this case challenge two EPA final rules promulgated by EPA pursuant to the Clean Air Act – the "Clean Air Fine Particle Implementation Rule," 72 Fed. Reg. 20586 (April 25, 2007) ("$PM_{2.5}$ Implementation Rule") [JA257] and the "Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers ($PM_{2.5}$)," 73 Fed. Reg. 28321 (May 16, 2008) ("$PM_{2.5}$ NSR Rule") [JA418]. Both rules govern the implementation of the 1997 national ambient air quality standards for fine particulate matter ("$PM_{2.5}$").

Environmental Petitioners filed a petition for review of the $PM_{2.5}$ Implementation Rule on June 25, 2007. On the same day, Environmental Petitioners also filed an administrative petition for reconsideration pursuant to Clean Air Act section 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B). Industry petitioners also filed petitions for review and an administrative petition for reconsideration. The legal challenges have been consolidated under Case No. 07-1227. *See* Clerk's Order, Case No. 07-1227 (filed June 27, 2007) (Doc. # 1049646). By Orders dated September 21, 2007, and February 12, 2008, the Court ordered that Case No. 07-1227 and consolidated cases be held in abeyance and

ordered EPA to file Status Reports every 60 days. *See* Clerk's Order, Case No. 07-1227 (filed Sept. 21, 2007) (Doc. # 1068448) and Clerk's Order, Case No. 07-1227 (filed Feb. 12, 2008) (Doc. # 1098648). In its September 13, 2011 Status Report, EPA reported that it had granted reconsideration on three of the issues raised in Environmental Petitioners' administrative petition for reconsideration and would initiate a rulemaking to address these issues. *See* Status Report, Case No. 07-1227 (filed Sept. 13, 2011) (Doc. # 1329213). EPA is still considering the administrative petition for reconsideration filed by industry petitioners. *Id.*

On July 15, 2008, Environmental Petitioners filed a petition for review of the $PM_{2.5}$ NSR Rule (Case No. 08-1250). On the same day, Environmental Petitioners also filed an administrative petition for reconsideration. On December 3, 2008, upon a joint motion by Environmental Petitioners and EPA, the Court ordered the case held in abeyance pending EPA action on the petition for reconsideration. *See* Clerk's Order, Case No. 08-1250 (filed Dec. 3, 2008) (Doc. # 1152283). On January 14, 2009, EPA denied the administrative petition for reconsideration leading Environmental Petitioners to file a petition for review of the denial on March 13, 2009 (Case No. 09-1102). On February 10, 2009, Environmental Petitioners filed a second administrative petition for reconsideration of the $PM_{2.5}$ NSR Rule. Upon Parties' joint motion, on May 6, 2009, the Court ordered that Case Nos. 08-1250 and 09-1102 be consolidated, stayed the

consolidated cases, and ordered motions to govern by June 1, 2009. *See* Clerk's Order, Case No. 08-1250 (filed May 6, 2009) (Doc. # 1179554). Since then, the Court has approved a series of motions to hold the case in abeyance while EPA considered Environmental Petitioners' administrative petitions.

EPA has now granted reconsideration or otherwise resolved the issues for reconsideration in Case No. 08-1250. As a result, on June 27, 2011, Environmental Petitioners and EPA filed a Joint Motion to Govern Proceedings asking the Court to lift the stay and set a briefing schedule for Case No. 08-1250. *See* Unopposed Joint Mot. to Govern Proceedings, Case Nos. 08-1250 and 07-1227 (filed June 27, 2011) (Doc. # 1315468). In that motion Parties also asked the Court to sever two issues from Case No. 07-1227 that overlap with issues in Case No. 08-1250, place those issues into a newly-designated case number and consolidate that new case with Case No. 08-1250. *Id.* On August 12, 2011, Environmental Petitioners and EPA filed an Unopposed Joint Motion to Revise the Proposed Briefing Schedule, which calls for Environmental Petitioners to file their Opening Brief on November 10, 2011. *See* Unopposed Joint Motion to Revise the Proposed Briefing Schedule, Case Nos. 08-1250 and 07-1227 (filed Aug. 12, 2011) (Doc. # 1324044). The Court granted these motions on November 8, 2011, removing Case No. 08-1250 from abeyance, severing the two issues as new Case No. 11-1430, consolidating the new case with Case No. 08-1250, approving the

proposed briefing schedule, and designating all Respondent-Intervenors from Case No. 07-1227 as Respondent-Intervenors in Case No. 08-1250. *See* Order, Case No. 08-1250 (filed Nov. 8, 2011) (Doc. # 1340623).

STATEMENT OF FACTS

I. Particulate Matter Pollution and EPA's National Ambient Air Quality Standards

The Clean Air Act requires EPA to promulgate national ambient air quality standards ("NAAQS") for harmful air pollutants, 42 U.S.C. § 7409, and directs the States to devise plans for bringing polluted areas into compliance with the standards. *Id.* § 7410. One of the first pollutants for which EPA adopted national standards was particulate matter. *See* 36 Fed. Reg. 8186 (April 30, 1971). Particulate matter pollution refers generally to a broad class of diverse types of particles that can be suspended in the air. *See* 71 Fed. Reg. 61144, 61146 (Oct. 17, 2006). EPA's original particulate matter standards established limits for total suspended particulates ("TSP"), which included particles up to 45 or 50 micrometers in diameter. *See* 52 Fed. Reg. 24634, 24635 (July 1, 1987).

In 1987, EPA concluded that particles larger than 10 micrometers were largely removed by deposition in the extrathoracic region (*i.e.*, the head) and did not pose the same health concerns as smaller particles that are able to penetrate deeper into the respiratory tract, where they pose "markedly greater" risks. 52 Fed. Reg. at 24639. EPA therefore decided to revise the standards for particulate

matter, replacing the TSP indicator with one that only included "particles with an aerodynamic diameter less than or equal to a nominal 10 micrometers" ("PM_{10}"). *Id.* at 24634.

In the 1987 rulemaking, EPA further recognized that within PM_{10} "[p]articles in ambient air usually occur in two overlapping size distributions, fine (diameter less than 2.5 μm) and coarse (diameter larger than 2.5 μm)" and that "[t]he two fractions tend to have different origins and composition." 52 Fed. Reg. at 24639 n.2; *see also id.* at 24639 (describing different health risks associated with different particle sizes). EPA considered setting a separate standard for $PM_{2.5}$, but instead decided to adopt "a 10 μm indicator that included all of the fine and a portion of the coarse fraction." *Id.* at 24649.

Fine particles ("$PM_{2.5}$") are produced chiefly by combustion processes and by atmospheric reactions of gaseous pollutants such as nitrogen oxides, sulfur oxides, ammonia and volatile organic compounds. 71 Fed. Reg. at 61146. Sources of $PM_{2.5}$ include "mobile sources, power generation, combustion sources at industrial facilities, and residential fuel burning." *Id.*

Thoracic coarse particles ("$PM_{2.5-10}$"), by contrast, "are generally emitted directly as particles as a result of mechanical processes that crush or grind larger particles or the resuspension of dusts." 71 Fed. Reg. at 61146. Sources of $PM_{2.5-10}$ include "traffic-related emissions such as tire and brake lining materials, direct

emissions from industrial operations, construction and demolition activities, and agricultural and mining operations." *Id.*

Elevated $PM_{2.5}$ exposures have been linked to both lung- and heart-related diseases and deaths. *See, e.g.*, 71 Fed. Reg. at 61152; *see also* EPA, "Air Quality Criteria for Particulate Matter (Vol. II)," at 8-306 and 8-307 (Oct. 2004) (noting "[s]ignificant associations . . . between $PM_{2.5}$ and cardiorespiratory mortality and lung cancer mortality") (available at: http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=87903#Download). EPA has also identified a number of adverse welfare impacts associated with elevated $PM_{2.5}$ levels, including adverse impacts on visibility. *See* 71 Fed. Reg. 2620, 2675 and 2681 (Jan. 17, 2006). By contrast, elevated exposures to coarse particles are not so clearly linked to premature mortality and are most clearly associated with short-term morbidity impacts such as aggravation of asthma and respiratory infections. *See, e.g.*, 62 Fed. Reg. 38652, 38668 (July 18, 1997); *see also* EPA, "Air Quality Criteria for Particulate Matter (Vol. II)," at 8-306 and 8-307 (explaining that "no statistically significant associations have been reported between long-term exposure to coarse fraction particles and cause-specific mortality").

In 1997, EPA reviewed the national standards for particulate matter and, concurring with the recommendations of its staff and scientific advisors, decided "to control particles of health concern (i.e., PM_{10}) through separate standards for

fine and coarse particles." 62 Fed. Reg. at 38667. EPA noted that since it adopted the 1987 standards, significant new community epidemiological studies had been conducted that provided "evidence that serious health effects (mortality, exacerbation of chronic disease, increased hospital admissions, etc.) are associated with exposures to ambient levels of PM . . . even at concentrations below current U.S. PM standards." 61 Fed. Reg. 65638, 65641 (Dec. 13, 1996). EPA concluded that setting separate standards for $PM_{2.5}$ would more effectively and efficiently target those components of PM linked to the remaining mortality and morbidity impacts that continued to be found at levels below the 1987 standards, and would focus "controls on gaseous precursors of fine particles (e.g., SOx, NOx, VOC), which are all components of the complex mixture that has most generally been associated with mortality and morbidity effects." 62 Fed. Reg. at 38667.

EPA "revis[ed]" the particulate matter standards by adding new separate standards for $PM_{2.5}$. 62 Fed. Reg. at 38679. EPA retained the standards for PM_{10} but explained that "[i]n conjunction with $PM_{2.5}$ standards, the new function of PM_{10} standard(s) is to protect against potential effects associated with coarse fraction particles in the size range of 2.5 to 10 μm." *Id.* at 38667. In other words, the protections previously provided by the 1987 PM_{10} standards would now be divided and targeted separately between the $PM_{2.5}$ and PM_{10} standards.

This court ultimately upheld the 1997 $PM_{2.5}$ standards in *American Trucking Ass'ns, Inc. v. EPA*, 283 F.3d 355 (D.C. Cir. 2002). Implementation of the 1997 $PM_{2.5}$ standards, however, was significantly delayed. The challenge here is to the final rules adopted by EPA in 2007 and 2008 to implement these 1997 standards.

II. The Clean Air Act's Strategy for Implementing The National Particulate Matter Standards

Congress enacted the Clean Air Act Amendments of 1970 as "a drastic remedy to what was perceived as a serious and otherwise uncheckable problem of air pollution." *Union Elec. Co. v. EPA*, 427 U.S. 246, 256 (1976). The Act's general structure for addressing criteria pollutants, such as particulate matter, operates under an arrangement of "cooperative federalism." *See Vigil v. Leavitt*, 381 F.3d 826, 830 (9th Cir. 2004). The Act directs EPA to establish national ambient air quality standards that all areas of the country must achieve. 42 U.S.C. § 7409. For those areas that fail to meet the national standards ("nonattainment areas"), Congress relies on the state and local air agencies to develop strategies – state implementation plans ("SIP") – for reducing emissions in order to attain the national standards. *See, e.g.,* 42 U.S.C. § 7410.

The 1970 Act gave States considerable discretion in choosing the manner in which they would attain the standards for particulate matter and other pollutants. After decades of little progress, however, a frustrated Congress overhauled the Clean Air Act in 1977 and again in 1990 to mandate increasingly prescriptive

requirements for nonattainment areas. *See South Coast Air Quality Mgmt. Dist. ("SCAQMD") v. EPA*, 472 F.3d 882, 886-87 (D.C. Cir. 2007) (describing history of Clean Air Act amendments). As the Court in *SCAQMD* explained:

> The 1990 Amendments abandoned the discretion-filled approach of two decades prior in favor of more comprehensive regulation of six [criteria] pollutants . . . . The old ends-driven approach that had proven unsuccessful for these pollutants was redesignated Subpart 1 (of Part D of Title I).

Id. at 887. In place of Subpart 1, Congress added a new scheme for particulate matter, often referred to as Subpart 4 because it is found in subpart 4 of part D of title I of the Act, which provides for the classification of areas as either "moderate," or "serious" and assigns deadlines that provide the most polluted areas more time to attain the standards in exchange for more stringent controls. *See* 42 U.S.C. §§ 7513(c) and 7513a(a)-(b).

III. EPA's $PM_{2.5}$ Implementation Rules

In 2005, EPA proposed a rulemaking to establish the requirements that States must meet in their implementation plans for attaining the 1997 $PM_{2.5}$ standards. 70 Fed. Reg. 65984 (Nov. 1, 2005) [JA001]. EPA finalized the proposed requirements in two separate rulemakings. The first rulemaking promulgated the SIP requirements for $PM_{2.5}$ nonattainment areas. 72 Fed. Reg. 20586 (April 25, 2007) ("$PM_{2.5}$ Implementation Rule") [JA257]. The second promulgated the new source review ("NSR") permitting requirements governing

the construction and modification of stationary sources of $PM_{2.5}$ and precursors. 73 Fed. Reg. 28321 (May 16, 2008) ("$PM_{2.5}$ NSR Rule") [JA418].

Of central importance to this case, both final rulemakings chose to codify rules that follow the generic implementation requirements of Subpart 1 rather than the more detailed requirements of Subpart 4. For example:

· Subpart 4 requires initial classification of nonattainment areas as "moderate" with 6-year outside attainment deadlines, requires moderate areas that fail to timely attain to be reclassified as "serious" nonattainment areas, and requires specific stronger pollution control requirements in serious areas. *See* 42 U.S.C. §§ 7513(a)-(c) and 7513a(b)(1)(B). Except for the limited potential for two, 1-year extensions, moderate areas under Subpart 4 cannot get additional time to attain without being reclassified to serious nonattainment. *Id.* § 7513(b)(2). In contrast, EPA's $PM_{2.5}$ Implementation Rule abandons these classifications and allows EPA to extend the presumptive 5-year attainment deadline by another 5 years without triggering any of the stronger Subpart 4 requirements for serious areas. *See* 72 Fed. Reg. at 20598 [JA270]; 40 C.F.R. § 51.1004(a).

· Subpart 4 allows extension of the serious area attainment date only once for a period of not more than five years, and only if the State shows that its plan for the area includes the "most stringent measures" achieved in practice or included in the SIP of any other State. 42 U.S.C. § 7513(e). Further, Subpart 4 requires any

serious area that fails to attain by its ultimate deadline to submit a SIP providing for emissions cuts of at least 5 percent per year until attainment. *Id.* § 7513a(d). In contrast, EPA's rulemaking under Subpart 1 does not require adoption of the "most stringent measures" no matter how protracted the attainment date, does not set an absolute outside limit on attainment date extensions, and does not require minimum 5 percent annual emission cuts in areas that fail to timely attain. *See* 40 C.F.R. §§ 51.1004(a) and 51.1005; *see also* 42 U.S.C. § 7509(d) (prescribing Subpart 1 consequences for a failure to attain).

· Subpart 4 requires implementation of all reasonably available control measures ("RACM") no later than four years after designation. 42 U.S.C. § 7513a(a)(1)(C). In contrast, the $PM_{2.5}$ Implementation Rule directs States to implement these controls no later than the year prior to the attainment date – a time frame that is substantially longer than four years for areas given attainment date extensions of 10 years from designation. *See* 72 Fed. Reg. at 20628 [JA300].

· Subpart 4 requires state plans to impose stronger pollution control requirements – best available control measures ("BACM") – in serious nonattainment areas. 42 U.S.C. § 7513a(b)(1)(B). EPA's $PM_{2.5}$ Implementation Rule only requires States to impose the less stringent RACM requirements of Subpart 1. *See* 40 C.F.R. § 51.1010.

Subpart 4 lowers the major source threshold in serious nonattainment areas from 100 tons per year to 70 tons per year. *See* 42 U.S.C. § 7513a(b)(3). This threshold is used to identify the minimum stationary sources subject to BACM retrofit requirements and also defines the sources potentially subject to new source review permitting. EPA's $PM_{2.5}$ Implementation Rule imposes no threshold for minimum retrofit requirements explaining, "[s]ection 172 [in Subpart 1] does not include any specific applicability thresholds to identify the size of sources that States and EPA must consider in the RACT and RACM analysis." 72 Fed. Reg. at 20610 [JA282]. In the $PM_{2.5}$ NSR Rule, EPA specifically rejected adopting a major source threshold lower than 100 tons per year. *See* 73 Fed. Reg. at 28331 [JA428].

Subpart 4 provides that control requirements for major sources of particulate matter shall apply to major sources of precursors, except where the Administrator determines that such sources do not contribute significantly to nonattainment. 42 U.S.C. § 7513a(e). Thus, under Subpart 4, the default position is that major sources of precursors are subject to controls. In contrast, EPA's implementation rules presumptively waive controls for major sources of certain $PM_{2.5}$ precursors (*i.e.*, volatile organic compounds and ammonia) unless the State or EPA choose to make a demonstration that these precursors significantly contribute to $PM_{2.5}$ nonattainment. *See* 72 Fed. Reg. at 20590-93 (codified at 40 C.F.R. § 51.1002(c))

[JA262-65]; 73 Fed. Reg. at 28326 (codified at 40 C.F.R. §§ 51.165(a)(1)(x)(C)(4), 51.166(b)(49)(i)(d) and 52.21(b)(50)(i)(d)) [JA423].

EPA has agreed to reconsider several other issues raised by Environmental Petitioners in their administrative petitions on the two implementation rules. EPA has said that new rulemakings to address these issues will be forthcoming.

STANDARD OF REVIEW

The Act's judicial review provision provides for reversal of EPA actions found "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 42 U.S.C. § 7607(d)(9)(A). In determining whether EPA's actions comport with statutory requirements, this court applies the two-step analysis of *Chevron, U.S.A., Inc. v. NRDC*, 467 U.S. 837 (1984). Under step one of *Chevron*, the court must "give[] effect" to congressional intent discerned using "traditional tools of statutory construction." *Id.* at 843 n.9. When "the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Id.* at 842-43. Where Congress has failed to make its intent clear, step two of *Chevron* provides for judicial deference to reasonable agency interpretations of the statute. *Id.* at 845.

SUMMARY OF ARGUMENT

EPA unlawfully abandoned the detailed particulate matter implementation requirements of Clean Air Act title I, part D, subpart 4. Congress clearly intended these more rigorous requirements to address the problems, sources and pollutants

associated with $PM_{2.5}$ pollution. EPA's decision not to impose these requirements not only undermines Congress's clear intent but is also an irrational interpretation of the statute. The Supreme Court has made clear that the detailed implementation requirements of the 1990 Amendments were intended to limit EPA's discretion and cannot be jettisoned by EPA to promote the Agency's flexibility whenever EPA revises a national ambient air quality standard, especially when such revision reveals that the air pollution problem is even worse than Congress had assumed.

EPA's decision to presumptively waive controls and planning requirements associated with known $PM_{2.5}$ precursor pollutants is also unlawful and irrational. States cannot comply with the requirements of the statute if they fail to consider whether controls on these precursors significantly contribute to the problem of $PM_{2.5}$ pollution in the nonattainment area.

STANDING

Environmental Petitioners are all nonprofit organizations dedicated to the protection of public health and the environment. *See* Decl. of Yolanda Fortuna ¶ 4;[1] Decl. of Linda Lopez ¶ 4; Decl. of Charles Connor ¶ 3; Decl. of Kevin Hamilton ¶ 2.

As outlined above, $PM_{2.5}$ is associated with a variety of severe adverse health effects including premature death from heart and lung disease, aggravation of

[1] All supporting declarations are provided in Attachment B.

asthma and other respiratory ailments, decreased lung function, development of chronic respiratory disease, increased cardiac-related risk, and increased hospital and emergency room visits for respiratory and cardiac conditions. *See* 71 Fed. Reg. at 61154-55; 71 Fed. Reg. at 2627-36. EPA estimates that $PM_{2.5}$ pollution is responsible for thousands of premature deaths annually. 71 Fed. Reg. at 61154-55. In addition to health impacts, particulate matter pollution is the main cause of visibility impairment in the nation's cities and national parks, thereby adversely impacting public welfare in a substantial way. *See* 71 Fed. Reg. at 2675-77.

Environmental Petitioners have members who live, work, or recreate in areas adversely affected by $PM_{2.5}$ pollution, and who are concerned about these adverse impacts on their health and welfare. *See* Fortuna Decl. ¶ 7; Hamilton Decl. ¶¶ 2-8, 12-25; Connor Decl. ¶¶ 4-5; Lopez Decl. ¶ 7; Decl. of Dianne Sax ¶¶ 1-6; Decl. of Hermine F. Garcia ¶¶ 1-7; Decl. of Andrea L. Graboff ¶¶ 2-7; Decl. of Gordon Nipp ¶¶ 2-5; Decl. of James Stewart ¶¶ 2-3, 5-6; Decl. of Joan Davidson ¶¶ 2-7; *see also Warth v. Seldin*, 422 U.S. 490, 511 (1975) (finding membership organizations have standing where "its members, or any one of them, are suffering immediate or threatened injury as a result of the challenged action"). Environmental Petitioners' members believe the challenged rules do not do enough to protect them from harmful levels of particulate matter pollution, and deprive them of the health and welfare protections guaranteed by the Act. *See* Sax Decl.

¶¶ 5-7; Garcia Decl. ¶¶ 6-8; Graboff Decl. ¶ 7; Hamilton Decl. ¶¶ 21-26; Nipp Decl. ¶ 6; Stewart Decl. ¶ 6; Davidson Decl. ¶ 7. Remand of these rules would redress the injuries that these inadequate rules allow to continue. *See Center for Energy and Economic Development v. EPA*, 398 F.3d 653, 657 (D.C. Cir. 2005).

ARGUMENT

I. EPA's Decision to Abandon the Subpart 4 Requirements Governing Implementation of Particulate Matter Standards Was Unlawful.

EPA's attempt to abandon the detailed requirements of Subpart 4 in favor of the more "flexible" and generic requirements of Subpart 1 undermines Congress's clear intentions and runs counter to years of case law recognizing Congress's efforts to limit the Agency discretion that had resulted in decades of delay in cleaning up the air.

A. Congress Intended Subpart 4 to Address $PM_{2.5}$.

EPA argues that the new $PM_{2.5}$ standards need not be implemented under Subpart 4 because "Subpart 4 is expressly limited to PM-10." EPA, "Responses to Significant Comments on the 2005 Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards," at 10 (Mar. 29, 2007) (hereinafter "RTC") [JA349]. But as commenters pointed out, $PM_{2.5}$ *is* PM_{10}. *See* Comments of Clean Air Task Force *et al.*, at 5 (Feb. 3, 2006) [JA172]. Clean Air Act section 302(t) defines "PM-10" as "particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers . . . ." 42 U.S.C. § 7602(t). All $PM_{2.5}$

particles fit within this definition. EPA rejects the logic of this argument claiming that "the $PM_{2.5}$ NAAQS are intended to provide protection from risks that are different than those of the PM-10 NAAQS." RTC at 13 [JA352]. EPA adds that PM_{10} and $PM_{2.5}$ "have different health effects and risks and the nature and source of the emissions . . . may differ significantly . . . ." *Id.* Petitioners believe this is the crux of the issue: what are the health effects, risks and sources that Congress believed it was addressing when it adopted Subpart 4? The legislative history as well as EPA's own explanations for its adoption of national particulate matter standards leave no doubt that Congress intended Subpart 4 to address the problem of $PM_{2.5}$ pollution. Indeed it is irrational to believe that given the history of the Clean Air Act, Congress would have intended EPA to use the less stringent provisions of Subpart 1 to address a particulate matter pollution problem that is even more severe than Congress assumed.

Congress adopted Subpart 4 to address the problem of PM_{10} because that was the national ambient air quality standard in place at the time of the 1990 Amendments. *See* H.R. Rep. No. 101-490, at 207 (1990), *reprinted in* Comm. on Env't and Pub. Works, 103d Cong., *A Legislative History of the Clean Air Act Amendments of 1990* ("*Legislative History*"), at 3231 (1993) (describing history of national particulate standards); *see also Legislative History*, at 2996 (statement of Rep. Murtha recognizing that "[t]he 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"). It is relevant, therefore, to review the pollution problems EPA believed would be addressed by the 1987 PM_{10} NAAQS.

Even in 1987, EPA recognized the differences between coarse and fine particulate matter. *See* 52 Fed. Reg. at 24639 n.2 (noting that "[p]articles in ambient air usually occur in two overlapping size distributions, fine (diameter less than 2.5 μm) and coarse (diameter larger than 2.5 μm)" and that "[t]he two fractions tend to have different origins and composition"). EPA recognized that the health effects and risks associated with particulate pollution depended on the size of the particle. *See id.* at 24639 (describing three subsets of particles: those deposited in the extrathoracic region (head), those deposited in the tracheobronchial region, and still smaller particles capable of reaching the deepest portion of the lung, the alveolar region). EPA adopted PM_{10} as the indicator because:

> [I]t includes all of the particles small enough to penetrate to the sensitive alveolar region, and includes approximately the same proportion of larger particles as would be expected to reach the tracheobronchial region. It places substantially greater emphasis on controlling smaller particles than does a [total suspended particle] standard, but does not completely exclude larger particles.

Id.

In fact, in the 1987 rulemaking, several commenters suggested that EPA adopt a separate standard for $PM_{2.5}$, but EPA instead adopted "a 10 μm indicator

that included all of the fine and a portion of the coarse fraction." 52 Fed. Reg. at 24649. EPA justified this decision explaining:

> (1) Fine mass typically compromises on the order of 40 to 70% of PM_{10}. Therefore, the PM_{10} standards provide substantial limits on fine mass, and (2) . . . Because [the limited epidemiological data] do not separate the effects of fine and coarse fractions, it is most reasonable to use these data to support a single set of standards.

Id. When EPA adopted the PM_{10} standards in 1987, it understood that fine and coarse fractions of particulate matter had "distinct chemical and physical properties and sources," and explicitly adopted the PM_{10} standards to address both. *Id.*

EPA's claim that the PM_{10} and $PM_{2.5}$ standards address different sources and health effects is a recent construct – not what was envisioned in the 1987 PM_{10} standards. It was not until the 1997 standards, *i.e.*, well after Congress's adoption of Subpart 4 in the 1990 Clean Air Act Amendments, that EPA suggested for the first time that the PM_{10} standard could be used to target only the coarse fraction of PM_{10}. *See* 62 Fed. Reg. at 38667 (describing that "the *new* function of PM_{10} standard(s) is to protect against potential effects associated with coarse fraction particles in the size range of 2.5 to 10 μm") (emphasis added). But even then, EPA recognized that the $PM_{2.5}$ and PM_{10} standards worked in concert "to control particles of health concern (i.e., PM_{10}) through separate standards for fine and coarse particles." *Id.*

EPA's claim that Subpart 4 was not crafted to address the $PM_{2.5}$ fraction has no basis whatsoever in the legislative history. In fact, every source, pollutant, and health concern that EPA now assigns strictly to $PM_{2.5}$ is one that Congress assumed it was addressing through Subpart 4. The legislative history is replete with examples demonstrating that Congress knew the scope of the issues, pollutants and sources being addressed by the 1987 PM_{10} standards and intended Subpart 4 to address the problems associated with both the coarse and fine particulate matter fractions covered by these PM_{10} standards.

For example, EPA has identified the distinct components that make up fine and coarse particulate matter:

> Fine particles include primary PM (metals, black or elemental carbon, and organic compounds) and secondary PM (sulfate, nitrate, ammonium and hydrogen ions, and organic compounds).
>
> The coarse mode refers to particles formed by mechanical breakdown of minerals, crustal material, and organic debris.

EPA, "Air Quality Criteria for Particulate Matter (Vol. II)," at 9-12. The list of pollutants Congress intended to address through the Subpart 4 requirements for PM_{10} is virtually identical and includes both the fine and coarse particle components identified by EPA:

> Many different substances can be components of PM-10 including dust, dirt, smoke, and 'secondary particulates' . . . formed by the transformation of pollutant gases such as sulfur dioxide, nitrogen oxides, or volatile organic compounds into airborne particulates.

Legislative History, at 2501; *see also* H.R. Rep. No. 101-490, at 207 (1990), *reprinted in Legislative History*, at 3231 (same).

EPA has differentiated the sources of particulate matter explaining that sources of fine particulate matter include: combustion of coal, oil, gasoline diesel fuel and wood; atmospheric transformation of products of NO_x, SO_2, and organic compounds; and high-temperature processes such as smelters and steel mills. EPA, "Air Quality Criteria for Particulate Matter (Vol. II)," at 9-14 (Table 9-1). By contrast, sources for coarse particulate matter include: resuspension of industrial dust and soil tracked onto roads and streets; suspension from disturbed soil (*e.g.*, farming, mining, unpaved roads); construction and demolition; uncontrolled coal and oil combustion; ocean spray; and biological sources. *Id.*

Again the legislative history shows that Congress assumed all of these sources, not just the sources of coarse particulate matter, would be addressed with the Subpart 4 requirements for PM_{10}. Legislators understood, for example, that PM_{10} sources "include[d] major industrial polluters such as steel plants and oil refineries, small area sources such as woodburning stoves, as well as fugitive dust from unpaved roads, heavy construction equipment and agricultural dust." *Legislative History*, at 1244. It was well understood that addressing PM_{10} under Subpart 4 meant addressing a wide variety of sources, many of which EPA has now identified strictly as sources of fine particulate matter. *See id.* at 2501

(appended fact sheet explaining "within the broad category of man-made sources [of PM_{10}] there are three major subsets of sources: fugitive emissions (e.g., dust and dirt), direct emissions (e.g., diesel particulates and wood smoke), and secondary particulates (e.g., sulfates and nitrates)"); *see also id.* at 2502 (providing more detail on source types); H.R. Rep. No. 101-490, at 212 (1990), *reprinted in Legislative History*, at 3231 (same).

Even EPA's descriptions of the different control measures needed to address the different fractions of particulate matter undermine its claim that Congress did not intend Subpart 4 to address $PM_{2.5}$. As EPA explains, "[c]ontrol measures for coarse particle emissions often include watering of roadways and soil to keep down dust and other 'best management' practices, whereas measures to reduce fine particle precursor emissions more often involve more traditional add-on control technology." RTC at 14 [JA353]. The legislative history shows that Congress anticipated that both sets of control measures would be required by Subpart 4. *See Legislative History*, at 2503 (describing "add-on" controls to address secondary particulates: "These measures include scrubbers, low-NOx burners, tighter tailpipe standards, and fuel-switching, among others"). Indeed, the express language of Subpart 4 includes control measure requirements for coarse particulate matter sources (*e.g.*, fugitive dust) and fine particulate matter (*e.g.*, wood combustion). *See* 42 U.S.C. § 7513(b) (requiring control measure guidance for both).

Finally, EPA notes that the health concerns associated with the fine and coarse fractions are different. For example, "[s]ignificant associations have been reported between $PM_{2.5}$ and cardiorespiratory mortality and lung cancer mortality," but "no statistically significant associations have been reported between long-term exposure to coarse fraction particles and cause-specific mortality." EPA, "Air Quality Criteria for Particulate Matter (Vol. II)," at 8-306 and 8-307. When discussing the health concerns associated with PM_{10}, the legislative history again identifies impacts associated not just with coarse particulate matter, but impacts such as premature mortality and lung cancer that EPA has isolated as being caused by $PM_{2.5}$. *See, e.g.*, *Legislative History*, at 2501 (appended fact sheet explaining "PM-10 can produce an array of adverse health effects, ranging from temporary reductions in lung capacity, to aggravation of pre-existing respiratory diseases, to cancer and premature death"); *see also* H.R. Rep. No. 101-490, at 210 (1990), *reprinted in Legislative History*, at 3231 (same).

The problem of fine particulate pollution, despite EPA's new assertions, is not a new one. EPA adopted the PM_{10} standards in 1987 expressly to address fine as well as coarse particle pollution. Likewise, Congress adopted Subpart 4 to address these same concerns. To be sure, more recent science has demonstrated that the problems associated with $PM_{2.5}$ pollution are even more serious than Congress knew, but to suggest that Congress did not intend Subpart 4 to provide

the detailed and stringent requirements for addressing the $PM_{2.5}$ problem has no basis whatsoever. "If the intent of Congress is clear, that is the end of the matter; for the agency must give effect to the unambiguously expressed intent of Congress." *Chevron*, 467 U.S. at 842-43. EPA's refusal to apply Subpart 4 requirements in implementing the 1997 $PM_{2.5}$ standards must fall under *Chevron* "step 1."

B. Courts Have Repeatedly Rejected Similar Attempts by EPA to Abandon The More Detailed Implementation Requirements of the 1990 Clean Air Act Amendments.

EPA's actions here are the latest in a string of attempts to avoid the more detailed implementation requirements added by Congress in the 1990 Clean Air Act Amendments. Each time, EPA has claimed that implementation of the new standards under Subpart 1 is more desirable because it allows for greater discretion on the part of the agencies. *Compare* 72 Fed. Reg. at 20589 (arguing, for $PM_{2.5}$, that "EPA has concluded that the provisions of Subpart 1 will allow States and EPA to tailor attainment plans so that they can be based more specifically on the facts and circumstances of each nonattainment area") [JA261] *with SCAQMD*, 472 F.3d at 894 (noting, for ozone implementation, EPA's argument that its interpretation provided the Agency the flexibility to "tailor [controls] to the situation of that state"). Setting aside EPA's failure to explain why implementation under the more detailed requirements precludes any necessary tailoring, EPA's desire to avoid these detailed requirements and revive the more

"flexible" pre-1990 implementation scheme under Subpart 1, ignores the history and intent behind the 1990 Amendments. EPA's interpretation that Congress would give EPA more flexibility to address a pollution problem that is even more grave than Congress assumed has repeatedly been rejected by the courts as irrational.

In *Whitman v. American Trucking Ass'ns.*, the Supreme Court unanimously rejected a similar EPA attempt to abandon the more prescriptive implementation requirements for ozone under the 1990 Amendments. 531 U.S. 457, 481-86 (2001). In that case, EPA sought to avoid the Subpart 2 requirements for ozone and instead implement the new 8-hour ozone standard solely under Subpart 1. EPA argued the language of Subpart 2 was only intended to cover 1-hour ozone nonattainment areas. *Id.* at 484-85. For example, the Table in 42 U.S.C. § 7511(a)(1) that dictated Subpart 2 classifications was based on the 1-hour standard, not the 8-hour standard. *Id.* at 483. While the Court acknowledged that "some provisions of Subpart 2 are ill fitted to implementation of the revised [ozone] standard," it recognized that the new ozone requirements provided in Subpart 2 were "carefully designed restrictions on EPA's discretion." *Id.* at 483-84. Given Congress' intent to limit EPA's discretion, the Court held:

> To use a few apparent gaps in Subpart 2 to render its textually explicit applicability to nonattainment areas under the new standard utterly inoperative is to go over the edge of reasonable interpretation. The EPA may not construe the statute in a way that completely nullifies textually applicable provisions meant to limit its discretion.

Id. at 485. The Court added:

> EPA's interpretation making Subpart 2 abruptly obsolete is all the more astonishing because Subpart 2 was obviously written to govern implementation for some time. . . . A plan reaching so far into the future was not enacted to be abandoned the next time the EPA reviewed the ozone standard – which Congress knew could happen at any time, since the technical staff papers had already been completed in late 1989. . . . Yet nothing in EPA's interpretation would have prevented the agency from aborting Subpart 2 the day after it was enacted.

Id. The Court remanded EPA's implementation policy for EPA to develop a plan that did not "nullif[y] textually applicable provisions" or "render Subpart 2's carefully designed restrictions on EPA's discretion utterly nugatory." *Id.* at 484-85.

The same rationale even more strongly compels the conclusion that EPA must apply Subpart 4 to implementation of the $PM_{2.5}$ standards. For $PM_{2.5}$, there is no similar statutory "gap" in Subpart 4. Nothing in Subpart 4 fails to "fit" with the implementation of revised particulate matter standards. As EPA itself acknowledges, "there are provisions in Subpart 4 that clearly contemplate PM-10 nonattainment areas that come into existence in the future, and are thus given dates for various requirements that key off of some future nonattainment designation . . . ." RTC at 10 [JA349]. EPA's only argument for distinguishing *Whitman* is that

unlike Subpart 2, which refers only to "ozone," Subpart 4 refers specifically to PM_{10}. As discussed above, however, this argument lacks merit because Congress expressly defined PM_{10} to include $PM_{2.5}$ and adopted Subpart 4 to address the problems, sources, and emissions associated with $PM_{2.5}$ pollution. Every provision dictating the requirements that address PM_{10} pollution is just as relevant and applicable to $PM_{2.5}$ pollution. As with Subpart 2, EPA cannot simply split PM_{10} into component standards and render obsolete the Subpart 4 requirements that Congress intended to "limit [EPA's] discretion" and govern "far into the future." *Whitman*, 531 U.S. at 485.

This Court has also recognized that the addition of the more detailed requirements like Subpart 4 in the 1990 Amendments was Congress's rejection of "[t]he old ends-driven" and "discretion-filled" approach which, for two decades, had proved unsuccessful for meeting national ambient air quality standards. *SCAQMD*, 472 F.3d at 887 (noting that Congress was "[n]o longer willing to rely upon EPA's exercise of discretion"). In *SCAQMD*, this court found that "[t]he interpretation advanced by EPA cannot be squared with Congress's desire to limit EPA discretion by devising a scheme that would reach far into the future." *Id.* at 894 (citing *Whitman*). The Court held that "EPA's interpretation of the Act in a manner to maximize its own discretion is unreasonable because the clear intent of Congress in enacting the 1990 Amendments was to the contrary." *Id.* at 895.

EPA's belief that Congress intended to allow EPA to ignore these far-reaching promises and choices the next time the Agency revised the PM_{10} standards is as untenable here as it was in *Whitman* and *SCAQMD*.

C. Subpart 4 Would Require More Stringent Controls for Attaining the $PM_{2.5}$ Standards.

For all these reasons, EPA must require $PM_{2.5}$ nonattainment areas to adhere to the schedules and control requirements in Subpart 4. Those requirements include a tiered scheme of deadlines and controls that require the most polluted areas to do more in exchange for additional time to attain. Subpart 4 mandates attainment of the NAAQS as expeditiously as practicable, but no later than 6 years from designation for moderate areas, and 10 years for serious areas. 42 U.S.C. § 7513(c). It also requires implementation of reasonably available controls measures within four years, and implementation of best available control measures within four years of reclassification to serious. *Id.* § 7513a. In addition, Subpart 4 mandates control of precursor emissions, establishes rate-of-progress milestones, and imposes more stringent definitions of major sources in serious nonattainment areas. *Id.* §§ 7513a(c), (b)(3) and (e). Application of these and all of the other Subpart 4 provisions will help to ensure timely $PM_{2.5}$ and precursor emission reductions within nonattainment areas, and timely attainment of the standards.

II. EPA's Presumption Against Controls on $PM_{2.5}$ Precursors Is Unlawful and Arbitrary.

EPA's final $PM_{2.5}$ Implementation Rule provides that a State is not required to address VOCs or ammonia as $PM_{2.5}$ precursors in its attainment plans and need not evaluate controls on sources of these pollutants unless the State "provides an appropriate technical demonstration for a specific area" and shows that "emissions [of VOCs or ammonia] from sources in the State significantly contribute to $PM_{2.5}$ concentrations in the nonattainment area, and such demonstration is approved by EPA." 40 C.F.R. §§ 51.1002(c)(3) and (4). The final $PM_{2.5}$ NSR Rule follows this conclusion and establishes a similar presumption and waives requirements to address these precursors in new source review air permits. *See* 40 C.F.R. §§ 51.165(a)(1)(xxxvii)(C)(4), 51.166(b)(49)(i)(d), and 52.21(b)(50)(i)(d). Remand of EPA's decision not to implement the $PM_{2.5}$ standards under Subpart 4 would include a remand of this precursor issue because EPA would need to address the treatment of precursors under 42 U.S.C. § 7513a(e), which establishes the opposite presumption, *i.e.*, that States must adopt control requirements for major sources of particulate matter precursors, except where the Administrator determines that such sources do not contribute significantly to nonattainment. But even if the Court were to decide that Subpart 4 did not control implementation of the 1997 $PM_{2.5}$ standards, the Court should still reject EPA's new presumptions against controls on VOCs and ammonia as unlawful and arbitrary.

EPA acknowledges that scientific research has shown that in addition to direct $PM_{2.5}$ emissions, sulfur dioxide ("SO_2"), oxides of nitrogen ("NO_x"), VOCs and ammonia are all precursors that contribute to ambient $PM_{2.5}$ concentrations. 73 Fed. Reg. at 28325 [JA422]. EPA further acknowledges that:

> Precursors contribute significantly to ambient $PM_{2.5}$ concentrations, producing approximately half of the concentration nationally. In most areas of the country, $PM_{2.5}$ precursor emissions are major contributors to ambient $PM_{2.5}$ concentrations.

Id. EPA's decision to exclude VOCs and ammonia from mandatory controls as precursors is not based on any determination that these pollutants are not in fact precursors or even that they are insignificant contributors to $PM_{2.5}$ concentrations. *See* 73 Fed. Reg. at 28329-30 [JA426-27]. When pushed on why it would not presume these precursors "in" for purposes of planning and control unless the State could demonstrate an insignificant contribution, EPA's only response was that determining the relationship between emissions of these precursors and ambient $PM_{2.5}$ concentrations was "complex" and "uncertain." *Id.*

EPA's decision and rationale cannot be reconciled with the directives of the statute. EPA's final rules are unlawful and arbitrary because they make the presumption against regulating VOCs and ammonia non-rebuttable unless the State or EPA *chooses* to undertake to rebut it. Under this approach, VOCs and ammonia can escape regulation as precursors, *even if they in fact contribute significantly to*

an area's ambient $PM_{2.5}$ concentrations, simply because the State chooses not to make a demonstration of significant contribution.

EPA's approach is contrary to the overall "preventative" and "precautionary" tenor of the Act. *See American Lung Ass'n v. EPA*, 134 F.3d 388, 389 (D.C. Cir. 1998). More specifically, waiving the analysis of controls for these precursors subverts Congress's requirement that State plans "shall provide for the implementation of all reasonably available control measures . . . ." 42 U.S.C. § 7502(c)(1). Nor can EPA assure that areas will attain the $PM_{2.5}$ standards "as expeditiously as practicable" or are achieving "reasonable further progress" toward attainment. *Id.* §§ 7502(a)(2) and (c)(2). Under these provisions, it is the State's burden to demonstrate that its plan contains all reasonably available control measures and assures reasonable further progress and attainment as expeditiously as practicable – the State does not have the option of simply ignoring controls that could contribute to RFP or hasten attainment merely because the State, without any rationale, chooses to assume they would not.

It is arbitrary and irrational for EPA to make the regulation of precursors entirely dependent on the State's willingness to make a significant contribution demonstration. The issue of whether VOCs and/or ammonia significantly contribute to $PM_{2.5}$ levels in an area is an objective one. The State's willingness (or not) to make a demonstration on the significance of these precursors is utterly

irrelevant to the question. EPA cannot simply assume that States will voluntarily undertake such demonstrations where warranted. Such an assumption is irrational and in fact belied by the various state laws that limit the ability of state officials to take environmental regulatory action beyond the bare minimum mandated by federal law. *See, e.g.*, Idaho Code § 39-1118B (2011); Ky. Rev. Stat. Ann. § 13A.120 (Banks Baldwin 2011); Miss. Code Ann. § 49-17-34(2) (2011); S.D. Codified Laws § 1-40-4.1 (2011). Congress itself rejected such an assumption when it mandated the presumption in favor of regulating precursors in 42 U.S.C. § 7513a(e).

VOCs and ammonia are $PM_{2.5}$ precursors. As such, EPA must ensure that sources of these pollutants are addressed in nonattainment planning and new source review air permitting unless it can be shown that emissions of these pollutants do not contribute significantly to $PM_{2.5}$ concentrations. EPA's rulemakings waiving any obligation to make such a showing unless a State chooses to do so is irrational and unlawful.

CONCLUSION AND RELIEF REQUESTED

For all the foregoing reasons, Petitioners respectfully request that the Court remand EPA's $PM_{2.5}$ NSR Rule and $PM_{2.5}$ Implementation Rule. Petitioners further request that the Court: (1) require EPA to comply with the Court's remand by promulgating a revised rule no later than one year from the Court's mandate; (2)

retain jurisdiction over the matter pending EPA completion of the required final rule; and (3) require regular reports from EPA on its rulemaking progress.

Prompt revision of the remanded rules will be important to ensure that those areas that fail to attain the 1997 $PM_{2.5}$ standards will implement the serious area control requirements provided by Subpart 4. This includes areas such as Los Angeles and the San Joaquin Valley that have already received attainment date extensions to 2015 from EPA. *See* 76 Fed. Reg. 69896 (Nov. 9, 2011) (approving San Joaquin Valley $PM_{2.5}$ plan with attainment date extension to April 5, 2015); 76 Fed. Reg. 69928 (Nov. 9, 2011) (same for South Coast plan). Consistent with EPA's rules, these areas have been afforded this additional time without any requirement to adopt the controls or implement the permitting program cutoffs specified for serious nonattainment areas. Prompt rulemaking will also aid in the proper implementation of the next generation of $PM_{2.5}$ standards adopted in 2006. State implementation planning is just getting underway and plans are due to EPA by December 14, 2012. *See* 74 Fed. Reg. 58688, 58689 (Nov. 13, 2009) (announcing that plans must be submitted three years from the December 14, 2009 effective date of the rulemaking).

As a result of the administrative reconsideration process, this litigation has already dragged on for several years. Environmental Petitioners are further concerned that EPA has repeatedly shown itself unable or unwilling to respond to

remands from this Court in a timely fashion. For example, it has been nearly three years, and EPA has yet to take any action in responding to this Court's remand of the 2006 $PM_{2.5}$ standards in *Am. Farm Bureau Fed'n v. EPA*, 559 F.3d 512 (D.C. Cir. 2009). To list just a few other examples: EPA took 10 years to respond to the Court's remand of the toxics standards for municipal waste incinerators in *Sierra Club v. EPA*, 167 F.3d 658 (D.C. Cir. 1999) (*see* 74 Fed. Reg. 51368 (Oct. 6, 2009)), 10 years to respond to the Court's remand of air emissions standards or cement plants in *National Lime Ass'n* v. *EPA*, 233 F.3d 625, 633 (D.C. Cir. 2000) (*see* 75 Fed. Reg. 54970 (Sept. 9, 2010)), and 11 years to respond to its own voluntary remand of standards for commercial and industrial solid waste incinerators (*see* 76 Fed. Reg. 15704 (Mar. 21, 2011)). Such extended delay in this matter will undermine meaningful air quality planning efforts, delay attainment and create administrative confusion as States will be unsure how to proceed.

In similar situations, this Court has been willing to set deadlines for agency action and retain jurisdiction to ensure progress. *See, e.g., Rodway v. USDA*, 514 F.2d 809, 817–18 (D.C. Cir. 1975) (remanding without vacatur and ordering "complet[ion of] the new rule-making process within 120 days of the issuance of this opinion"); *Sierra Club v. Gorsuch*, 715 F.2d 653, 661 (D.C. Cir. 1983) (retaining jurisdiction on remand to EPA "in the interest of judicial economy" and, "absent cause shown," requiring action within 90 days); *International Union, UAW*

v. OSHA, 1991 WL 223770 (D.C. Cir. Sept. 16, 1991) (ordering status reports from agency every 60 days on progress with earlier remand). Environmental Petitioners ask the Court to exercise its discretion here to ensure the timely EPA action required to allow for meaningful implementation of the $PM_{2.5}$ standards.

FINAL BRIEF DATED: June 4, 2012

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CERTIFICATE OF COMPLIANCE WITH WORD LIMIT

I hereby certify that the foregoing brief is within the applicable word limit provided under Fed. R. App. Procedure Rule 28.1(e)(2) and this Court's orders, in that it contains 8,204 words according to counsel's word processing system.

DATED: June 4, 2012

/s/ Paul Cort
Paul R. Cort

CERTIFICATE OF SERVICE

I, the undersigned, hereby certify that on June 4, 2012, I electronically filed **FINAL OPENING BRIEF OF ENVIRONMENTAL PETITIONERS** with the Clerk of the Court for the United States Court of Appeals for the District of Columbia Circuit by using the appellate CM/ECF system.

I certify that all participants in the case are registered CM/ECF users and that service will be accomplished by the appellate CM/ECF system.

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