6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 52 and 81

[EPA-R03-OAR-2014-0868; FRL-9923-03-Region 3]

Approval and Promulgation of Air Quality Implementation Plans; Pennsylvania; Redesignation Request and Associated Maintenance Plan for the Pennsylvania Portion of the Philadelphia-Wilmington, PA-NJ-DE Nonattainment Area for the 1997 Annual and 2006 24-Hour Fine Particulate Matter Standard

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve the Commonwealth of Pennsylvania's September 5, 2014 request to redesignate to attainment the Pennsylvania portion of the Philadelphia-Wilmington, PA-NJ-DE nonattainment area (hereafter "the Philadelphia Area" or "the Area") for both the 1997 annual and the 2006 24-hour fine particulate matter ($PM_{2.5}$) National Ambient Air Quality Standards (NAAQS or standards). EPA is also proposing to approve as a revision to the Pennsylvania State Implementation Plan (SIP) the associated maintenance plan to show maintenance of the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS through 2025 for the Pennsylvania portion of the Area. EPA is also proposing to approve the motor vehicle emissions budgets (MVEBs) included in Pennsylvania's maintenance plan for the Pennsylvania portion of the Area for both the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS. EPA is also proposing to determine that the Pennsylvania portion of the Philadelphia Area continues to attain both the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. In addition, EPA is proposing to approve the 2007 emissions inventory included in the maintenance plan for the Pennsylvania portion of the Area for the 2006 24-hour $PM_{2.5}$ NAAQS. In this rulemaking action, EPA also addresses the effects of several decisions of the United States Court of Appeals

for the District of Columbia (D.C. Circuit Court) and a decision of the United States Supreme Court: (1) The D.C. Circuit Court's August 21, 2012 decision to vacate and remand to EPA the Cross-State Air Pollution Control Rule (CSAPR); (2) the Supreme Court's April 29, 2014 reversal of the vacature of CSAPR, and remand to the D.C. Circuit Court; (3) the D.C. Circuit Court's October 23, 2014 decision to lift the stay of CSAPR; and (4) the D.C. Circuit Court's January 4, 2013 decision to remand to EPA two final rules implementing the 1997 annual $PM_{2.5}$ NAAQS. This rulemaking action to propose approval of the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS redesignation request and associated maintenance plan for the Pennsylvania portion of the Philadelphia Area is based on EPA's determination that Pennsylvania has met the criteria for redesignation to attainment specified in the Clean Air Act (CAA) for both the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS. EPA has taken separate rulemaking actions to approve the redesignation of the New Jersey portion and the Delaware portion of the Philadelphia Area for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS. *See* 78 FR 54396, September 4, 2013 (for the New Jersey portion of the Area), and 79 FR 45350, August 5, 2014 (for the Delaware portion of the Area).

DATES: Written comments must be received on or before [**insert date 30 days from date of publication**].

ADDRESSES: Submit your comments, identified by Docket ID Number EPA-R03-OAR-2014-0868 by one of the following methods:

A. www.regulations.gov. Follow the on-line instructions for submitting comments.

B. E-mail: powers.marilyn@epa.gov.

C. Mail: EPA-R03-OAR-2014-0868, Marilyn Powers, Acting Associate Director, Office of Air Quality Planning, Mailcode 3AP30, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103.

D. Hand Delivery: At the previously-listed EPA Region III address. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-R03-OAR-2014-0868. EPA's policy is that all comments received will be included in the public docket without change, and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through www.regulations.gov or e-mail. The www.regulations.gov website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through www.regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Docket: All documents in the electronic docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy during normal business hours at the Air Protection Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania. Copies of the State submittal are available at the Pennsylvania Department of Environmental Protection, Bureau of Air Quality Control, P.O. Box 8468, 400 Market Street, Harrisburg, Pennsylvania 17105.

FOR FURTHER INFORMATION CONTACT: Marilyn Powers, (215) 814-2308 or by e-mail at powers.marilyn@epa.gov. and Rose Quinto, (215) 814-2182 or e-mail at quinto.rose@epa.gov.

SUPPLEMENTARY INFORMATION:

TABLE OF CONTENTS

I. Background

II. EPA's Requirements

A. Criteria for Redesignation to Attainment

B. Requirements of a Maintenance Plan

III. Summary of Proposed Actions

IV. Effects of Recent Court Decisions on Proposed Actions

A. Effect of Court Decisions Regarding EPA's CSAPR

B. Effect of the D.C. Circuit Court Decision Regarding $PM_{2.5}$ Implementation under Subpart 4 of Part D of Title I of the CAA

V. EPA's Analysis of Pennsylvania's Submittal

A. Redesignation Request

B. Maintenance Plan

C. Motor Vehicle Emissions Budgets

VI. Proposed Actions

VII. Statutory and Executive Order Reviews

I. Background

The first air quality standards for $PM_{2.5}$ were established on July 16, 1997 (62 FR 38652, July 18, 1997). EPA promulgated an annual standard at a level of 15 micrograms per cubic meter ($\mu g/m^3$), based on a three-year average of annual mean $PM_{2.5}$ concentrations (the 1997 annual $PM_{2.5}$ NAAQS). In the same rulemaking action, EPA promulgated a 24-hour standard of 65 $\mu g/m^3$, based on a three-year average of the 98th percentile of 24-hour concentrations.

On January 5, 2005 (70 FR 944, 1014), EPA published air quality area designations for the 1997 $PM_{2.5}$ NAAQS. In that rulemaking action, EPA designated the Philadelphia Area as nonattainment for the 1997 annual $PM_{2.5}$ NAAQS. The Philadelphia Area is comprised of New Castle County in Delaware (the Delaware portion of the Area); Burlington, Camden, and

Gloucester Counties in New Jersey (the New Jersey portion of the Area); and Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties in Pennsylvania (the Pennsylvania portion of the Area). *See* 40 CFR 81.308 (Delaware), 40 CFR 81.331 (New Jersey), and 40 CFR 81.339 (Pennsylvania).

On October 17, 2006 (71 FR 61144), EPA retained the annual average standard at 15 $\mu g/m^3$, but revised the 24-hour standard to 35 $\mu g/m^3$, based again on the three-year average of the 98th percentile of 24-hour concentrations (the 2006 24-hour $PM_{2.5}$ NAAQS). On November 13, 2009 (74 FR 58688), EPA published designations for the 2006 24-hour $PM_{2.5}$ NAAQS, which became effective on December 14, 2009. In that rulemaking action, EPA designated the Philadelphia Area as nonattainment for the 2006 24-hour $PM_{2.5}$ NAAQS. *See* 77 FR 58775 and also *see* 40 CFR 81.308 (Delaware), 40 CFR 81.331 (New Jersey), and 40 CFR 81.339 (Pennsylvania). Today's proposed rulemaking actions address the redesignations to attainment for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS for the Pennsylvania portion of the Philadelphia Area.

On May 16, 2012 (77 FR 28782) and January 7, 2013 (78 FR 882), EPA made determinations that the entire Philadelphia Area had attained the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, respectively. Pursuant to 40 CFR 51.1004(c) and based on these determinations, the requirements for the Philadelphia Area to submit an attainment demonstration and associated reasonably available control measures (RACM), a reasonable further progress (RFP) plan, contingency measures, and other planning SIPs related to the attainment of either the 1997 annual or 2006 24-hour $PM_{2.5}$ NAAQS were, and continue to be, suspended until such time as: the Area is redesignated to attainment for each standard, at which time the requirements no

longer apply; or EPA determines that the Area has again violated any of the standards, at which time such plans are required to be submitted. In the May 16, 2012 action, EPA also determined, in accordance with CAA section 179(c), that the Philadelphia Area attained the 1997 annual $PM_{2.5}$ NAAQS by its attainment date of April 5, 2010.

On September 5, 2014, the Commonwealth of Pennsylvania, through the Pennsylvania Department of Environmental Protection (PADEP), formally submitted a request to redesignate the Pennsylvania portion of the Area from nonattainment to attainment for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS. Concurrently, PADEP submitted a combined maintenance plan for the Area as a SIP revision to ensure continued attainment throughout the Area over the next 10 years. The maintenance plan includes the 2017 and 2025 $PM_{2.5}$ and NOx MVEBs for the Area for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS which EPA is proposing to approve for transportation conformity purposes. On September 5, 2014, PADEP also submitted a 2007 comprehensive emissions inventory for the 2006 24-hour $PM_{2.5}$ NAAQS for $PM_{2.5}$, nitrogen oxides (NOx), sulfur dioxide (SO_2), volatile organic compounds (VOCs), and ammonia (NH_3). EPA is proposing to approve as a SIP revision the maintenance plan for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. EPA is also proposing to approve as a SIP revision the 2007 emissions inventory for the 2006 24-hour $PM_{2.5}$ NAAQS to meet the emissions inventory requirement of section 172(c)(3) of the CAA.

II. EPA's Requirements

A. Criteria for Redesignation to Attainment

The CAA provides the requirements for redesignating a nonattainment area to attainment.

Specifically, section 107(d)(3)(E) of the CAA allows for redesignation providing that: (1) EPA determines that the area has attained the applicable NAAQS; (2) EPA has fully approved the applicable implementation plan for the area under section 110(k); (3) EPA determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable SIP and applicable Federal air pollutant control regulations and other permanent and enforceable reductions; (4) EPA has fully approved a maintenance plan for the area as meeting the requirements of section 175A of the CAA; and (5) the state containing such area has met all requirements applicable to the area under section 110 and part D.

EPA has provided guidance on redesignation in the "State Implementation Plans; General Preamble for the Implementation of Title I of the Clear Air Act Amendments of 1990," (57 FR 13498, April 16, 1992) (the General Preamble) and has provided further guidance on processing redesignation requests in the following documents: (1) "Procedures for Processing Requests to Redesignate Areas to Attainment," Memorandum from John Calcagni, Director, Air Quality Management Division, September 4, 1992 (hereafter the 1992 Calcagni Memorandum); (2) "State Implementation Plan (SIP) Actions Submitted in Response to Clean Air Act (CAA) Deadlines," Memorandum from John Calcagni, Director, Air Quality Management Division, October 28, 1992; and (3) "Part D New Source Review (Part D NSR) Requirements for Areas Requesting Redesignation to Attainment," Memorandum from Mary D. Nichols, Assistant Administrator for Air and Radiation, October 14, 1994.

B. Requirements of a Maintenance Plan

Section 175A of the CAA sets forth the elements of a maintenance plan for areas seeking redesignation from nonattainment to attainment. Under section 175A, the plan must demonstrate continued attainment of the applicable NAAQS for at least 10 years after approval of a redesignation of an area to attainment. Eight years after the redesignation, the state must submit a revised maintenance plan demonstrating that attainment will continue to be maintained for the 10 years following the initial 10-year period. To address the possibility of future NAAQS violations, the maintenance plan must contain such contingency measures, with a schedule for implementation, as EPA deems necessary to assure prompt correction of any future $PM_{2.5}$ violations.

The 1992 Calcagni Memorandum provides additional guidance on the content of a maintenance plan. The Memorandum states that a maintenance plan should address the following provisions: (1) an attainment emissions inventory; (2) a maintenance demonstration showing maintenance for 10 years; (3) a commitment to maintain the existing monitoring network; (4) verification of continued attainment; and (5) a contingency plan to prevent or correct future violations of the NAAQS.

III. Summary of Proposed Actions

EPA is proposing to take several rulemaking actions related to the redesignation of the Pennsylvania portion of the Philadelphia Area to attainment for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. EPA is proposing to find that the Pennsylvania portion of the Area meets the requirements for redesignation of the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS under section 107(d)(3)(E) of the CAA. EPA is thus proposing to approve

Pennsylvania's request to change the legal designation of the Pennsylvania portion of the Area from nonattainment to attainment for both the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS. This rulemaking action does not impact the legal designation of the New Jersey and Delaware portions of the Philadelphia Area. On September 4, 2013 (78 FR 54396) and August 5, 2014 (79 FR 45350), EPA took separate rulemaking actions to redesignate to attainment the New Jersey portion of the Area and the Delaware portion of the Area, respectively, for both the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS.

EPA is also proposing to approve the associated maintenance plan for the Pennsylvania portion of the Area as a revision to the Pennsylvania SIP for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, including the MVEBs for the Pennsylvania portion of the Area for both the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. The approval of the maintenance plan is one of the CAA criteria for redesignation of the Pennsylvania portion of the Area to attainment for both NAAQS. Pennsylvania's combined maintenance plan is designed to ensure continued attainment of the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, respectively, in the Pennsylvania portion of the Area for 10 years after redesignation.

EPA previously determined that the Philadelphia Area attained both the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS (*see* 77 FR 28782 and 78 FR 882), and EPA is proposing to find that the Area continues to attain both NAAQS. Furthermore, under section 172(c)(3) of the CAA, EPA is proposing to approve the 2007 comprehensive emissions inventory submitted by PADEP for the Pennsylvania portion of the Area as a revision to the Pennsylvania's SIP for the 2006 24-hour $PM_{2.5}$ NAAQS. EPA's analysis of the proposed actions is provided in Section V. of today's

proposed rulemaking action.

IV. Effects of Recent Court Decisions on Proposed Actions

A. Effect of Court Decisions Regarding EPA's CSAPR

1. Background

The D.C. Circuit Court and the Supreme Court have issued a number of decisions and orders regarding the status of EPA's regional trading programs for transported air pollution, the Clean Air Interstate Rule (CAIR) and CSAPR, that impact this proposed redesignation action. In 2008, the D.C. Circuit Court initially vacated CAIR, *North Carolina v. EPA*, 531 F.3d 896 (D.C. Cir. 2008), but ultimately remanded the rule to EPA without vacatur to preserve the environmental benefits provided by CAIR, *North Carolina v. EPA*, 550 F.3d 1176, 1178 (D.C. Cir. 2008). On August 8, 2011 (76 FR 48208), acting on the D.C. Circuit Court's remand, EPA promulgated CSAPR, to address interstate transport of emissions and resulting secondary air pollutants and to replace CAIR.[1] CSAPR requires substantial reductions of SO_2 and NOx emissions from electric generating units (EGUs) in 28 states in the Eastern United States. Implementation of CSAPR was scheduled to begin on January 1, 2012, when CSAPR's cap-and-trade programs would have superseded the CAIR cap-and-trade programs. Numerous parties filed petitions for review of CSAPR, and on December 30, 2011, the D.C. Circuit Court issued an order staying CSAPR pending resolution of the petitions and directing EPA to continue to administer CAIR. *EME Homer City Generation, L.P. v. EPA*, No. 11-1302 (D.C. Cir. Dec. 30, 2011), Order at 2.

On August 21, 2012, the D.C. Circuit Court issued its ruling, vacating and remanding CSAPR to EPA and once again ordering continued implementation of CAIR. *EME Homer City*

[1] CAIR addressed the 1997 annual $PM_{2.5}$ NAAQS and the 1997 8-hour ozone NAAQS. CSAPR addresses contributions from upwind states to downwind nonattainment and maintenance of the 2006 24-hour $PM_{2.5}$ NAAQS as well as the ozone and $PM_{2.5}$ NAAQS addressed by CAIR.

Generation, L.P. v. EPA, 696 F.3d 7, 38 (D.C. Cir. 2012). The D.C. Circuit Court subsequently denied EPA's petition for rehearing en banc. *EME Homer City Generation, L.P. v. EPA*, No. 11-1302, 2013 WL 656247 (D.C. Cir. Jan. 24, 2013), at *1. EPA and other parties then petitioned the Supreme Court for a writ of certiorari, and the Supreme Court granted the petitions on June 24, 2013. *EPA v. EME Homer City Generation, L.P.*, 133 S. Ct. 2857 (2013).

On April 29, 2014, the Supreme Court vacated and reversed the D.C. Circuit Court's decision regarding CSAPR, and remanded that decision to the D.C. Circuit Court to resolve remaining issues in accordance with its ruling. *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584 (2014). EPA moved to have the stay of CSAPR lifted by the D.C. Circuit Court in light of the Supreme Court decision. *EME Homer City Generation, L.P. v. EPA*, Case No. 11-1302, Document No. 1499505 (D.C. Cir. filed June 26, 2014). In its motion, EPA asked the D.C. Circuit Court to toll CSAPR's compliance deadlines by three years, so that the Phase 1 emissions budgets apply in 2015 and 2016 (instead of 2012 and 2013), and the Phase 2 emissions budgets apply in 2017 and beyond (instead of 2014 and beyond). On October 23, 2014, the D.C. Circuit Court granted EPA's motion and lifted the stay of CSAPR which was imposed on December 30, 2011. *EME Homer City Generation, L.P. v. EPA*, No. 11-1302 (D.C. Cir. Oct. 23, 2014), Order at 3. On December 3, 2014, EPA issued an interim final rule to clarify how EPA will implement CSAPR consistent with the D.C. Circuit Court's order granting EPA's motion requesting lifting the stay and tolling the rule's deadlines. *See* 79 FR 71663 (December 3, 2014) (interim final rulemaking). Consistent with that rule, EPA began implementing CSAPR on January 1, 2015.

2. Proposal on This Issue

Because CAIR was promulgated in 2005 and incentivized sources and states to begin achieving

early emission reductions, the air quality data examined by EPA in issuing a final determination of attainment for the Pennsylvania portion of the Area in 2012 (May 16, 2012, 77 FR 28782) and the air quality data from the Area since 2005 necessarily reflect reductions in emissions from upwind sources as a result of CAIR, and Pennsylvania included CAIR as one of the measures that helped to bring the Area into attainment. However, modeling conducted by EPA during the CSAPR rulemaking process, which used a baseline emissions scenario that "backed out" the effects of CAIR, *see* 76 FR 48223, projected that the counties in the Philadelphia Area would have design values below the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS for 2012 and 2014 without taking into account emission reductions from CAIR or CSAPR. *See* Appendix B of EPA's "Air Quality Modeling Final Rule Technical Support Document," (Pages B-37, B-51, B-57, B-58, B-66, B-80, B-86), which is available in the docket for this proposed rulemaking action. In addition, the 2010-2012 quality-assured, quality-controlled, and certified monitoring data for the Philadelphia Area confirms that the $PM_{2.5}$ annual design value for the Area remained well below the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS in 2012.

The status of CSAPR is not relevant to this redesignation. CSAPR was promulgated in June 2011, and the rule was stayed by the D.C. Circuit Court just six months later, before the trading programs it created were scheduled to go into effect. As stated previously, EPA began implementing CSAPR on January 1, 2015, subsequent to the emission reductions documented in the Commonwealth's September 2014 request for redesignation. Therefore, the Philadelphia Area's attainment of the 1997 annual $PM_{2.5}$ NAAQS or the 2006 24-hour $PM_{2.5}$ NAAQS cannot have been a result of any emission reductions associated with CSAPR. In summary, neither the status of CAIR nor the current status of CSAPR affects any of the criteria for proposed approval

of this redesignation request for the Pennsylvania portion of the Area.

B. Effect of the D.C. Circuit Court Decision Regarding $PM_{2.5}$ Implementation under Subpart 4 of Part D of Title I of the CAA

1. Background

On January 4, 2013, in *NRDC v. EPA*, the D.C. Circuit Court remanded to EPA the "Final Clean Air Fine Particle Implementation Rule" (72 FR 20586, April 25, 2007) and the "Implementation of the New Source Review (NSR) Program for $PM_{2.5}$" final rule (73 FR 28321, May 16, 2008) (collectively, 1997 $PM_{2.5}$ Implementation Rule). 706 F.3d 428 (D.C. Cir. 2013). The D.C. Circuit Court found that EPA erred in implementing the 1997 annual $PM_{2.5}$ NAAQS pursuant to the general implementation provisions of subpart 1 of part D of Title I of the CAA (subpart 1), rather than the particulate-matter-specific provisions of subpart 4 of part D of Title I (subpart 4). Prior to the January 4, 2013 decision, the states had worked towards meeting the air quality goals of the 1997 and 2006 $PM_{2.5}$ NAAQS in accordance with EPA regulations and guidance derived from subpart 1 of part D of Title I of the CAA. In response to the D.C. Circuit Court's remand, EPA took this history into account by setting a new deadline for any remaining submissions that may be required for moderate nonattainment areas as a result of the D.C. Circuit Court's decision regarding the applicability of subpart 4 of part D of Title I of the CAA.

On June 2, 2014 (79 FR 31566), EPA issued a final rule, "Identification of Nonattainment Classification and Deadlines for Submission of SIP Provisions for the 1997 and 2006 $PM_{2.5}$ NAAQS" (the $PM_{2.5}$ Subpart 4 Classification and Deadline Rule), which identifies the classification under subpart 4 for areas currently designated nonattainment for the 1997 annual

and/or 2006 24-hour $PM_{2.5}$ NAAQS. The rule set a deadline for states to submit attainment plans and meet other subpart 4 requirements. The rule specified December 31, 2014 as the deadline for states to submit any additional attainment-related SIP elements that may be needed to meet the applicable requirements of subpart 4 for areas currently designated nonattainment for the 1997 $PM_{2.5}$ and/or 2006 $PM_{2.5}$ NAAQS and to submit SIPs addressing the nonattainment new source review (NSR) requirements in subpart 4.

As explained in detail in the following section, since Pennsylvania submitted its request to redesignate the Pennsylvania portion of the Philadelphia Area on September 5, 2014, any additional attainment-related SIP elements that may be needed for the Pennsylvania portion of the Area to meet the applicable requirements of subpart 4 were not due at the time Pennsylvania submitted its request to redesignate the Pennsylvania portion of the Area for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS.

2. Proposal on This Issue

In this proposed rulemaking action, EPA addresses the effect of the D.C. Circuit Court's January 4, 2013 ruling and the June 2, 2014 $PM_{2.5}$ Subpart 4 Classification and Deadline Rule on the redesignation requests for the Area. EPA is proposing to determine that the D.C. Circuit Court's January 4, 2013 decision does not prevent EPA from redesignating the Area to attainment for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. Even in light of the D.C. Circuit Court's decision, redesignation for this Area is appropriate under the CAA and EPA's longstanding interpretations of the CAA's provisions regarding redesignation. EPA first explains its longstanding interpretation that requirements that are imposed, or that become due,

after a complete redesignation request is submitted for an area that is attaining the standard, are not applicable for purposes of evaluating a redesignation request. Second, EPA then shows that, even if EPA applies the subpart 4 requirements to the redesignation requests of the Area and disregards the provisions of its 1997 $PM_{2.5}$ Implementation Rule recently remanded by the D.C. Circuit Court, Pennsylvania's request for redesignation of the Area still qualifies for approval. EPA's discussion takes into account the effect of the D.C. Circuit Court's ruling and the June 2, 2014 $PM_{2.5}$ Subpart 4 Classification and Deadline Rule on the maintenance plans of the Area, which EPA views as approvable when subpart 4 requirements are considered.

a. Applicable Requirements under Subpart 4 for Purposes of Evaluating the Redesignation Request of the Area

With respect to the 1997 $PM_{2.5}$ Implementation Rule, the D.C. Circuit Court's January 4, 2013 ruling rejected EPA's reasons for implementing the $PM_{2.5}$ NAAQS solely in accordance with the provisions of subpart 1, and remanded that matter to EPA, so that it could address implementation of the $PM_{2.5}$ NAAQS under subpart 4 of Part D of the CAA, in addition to subpart 1. For the purposes of evaluating Pennsylvania's September 2014 redesignation request for the Area, to the extent that implementation under subpart 4 would impose additional requirements for areas designated nonattainment, EPA believes that those requirements are not "applicable" for the purposes of section 107(d)(3)(E) of the CAA, and thus EPA is not required to consider subpart 4 requirements with respect to the redesignation of the areas. Under its longstanding interpretation of the CAA, EPA has interpreted section 107(d)(3)(E) to mean, as a threshold matter, that the part D provisions which are "applicable" and which must be approved in order for EPA to redesignate an area include only those which came due prior to a state's

submittal of a complete redesignation request. *See* 1992 Calcagni Memorandum. *See also* "SIP Requirements for Areas Submitting Requests for Redesignation to Attainment of the Ozone and Carbon Monoxide (CO) NAAQS on or after November 15, 1992," Memorandum from Michael Shapiro, Acting Assistant Administrator, Air and Radiation, September 17, 1993 (Shapiro memorandum); Final Redesignation of Detroit-Ann Arbor, (60 FR 12459, 12465-66, March 7, 1995); Final Redesignation of St. Louis, Missouri, (68 FR 25418, 25424-27, May 12, 2003); *Sierra Club v. EPA*, 375 F.3d 537, 541 (7th Cir. 2004) (upholding EPA's redesignation rulemaking applying this interpretation and expressly rejecting Sierra Club's view that the meaning of "applicable" under the statute is "whatever should have been in the plan at the time of attainment rather than whatever actually was in the plan and already implemented or due at the time of attainment").[2] In this case, at the time that Pennsylvania submitted its redesignation request for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS, the requirements under subpart 4 were not due.

EPA's view that, for purposes of evaluating the redesignation of the Pennsylvania portion of the Area, the subpart 4 requirements were not due at the time Pennsylvania submitted the redesignation request is in keeping with the EPA's interpretation of subpart 2 requirements for subpart 1 ozone areas redesignated subsequent to the D.C. Circuit Court's decision in *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir. 2006). In *South Coast*, the D.C. Circuit Court found that EPA was not permitted to implement the 1997 8-hour ozone standard solely under subpart 1, and held that EPA was required under the statute to implement the

[2] Applicable requirements of the CAA that come due subsequent to the area's submittal of a complete redesignation request remain applicable until a redesignation is approved, but are not required as a prerequisite to redesignation. *See* section 175A(c) of the CAA.

standard under the ozone-specific requirements of subpart 2 as well. Subsequent to the *South Coast* decision, in evaluating and acting upon redesignation requests for the 1997 8-hour ozone standard that were submitted to EPA for areas under subpart 1, EPA applied its longstanding interpretation of the CAA that "applicable requirements," for purposes of evaluating a redesignation, are those that had been due at the time the redesignation request was submitted. *See, e.g.*, Proposed Redesignation of Manitowoc County and Door County Nonattainment Areas (75 FR 22047, 22050, April 27, 2010). In those rulemaking actions, EPA, therefore did not consider subpart 2 requirements to be "applicable" for the purposes of evaluating whether the area should be redesignated under section 107(d)(3)(E) of the CAA.

EPA's interpretation derives from the provisions of section 107(d)(3) of the CAA. Section 107(d)(3)(E)(v) states that, for an area to be redesignated, a state must meet "all requirements 'applicable' to the area under section 110 and part D." Section 107(d)(3)(E)(ii) provides that EPA must have fully approved the "applicable" SIP for the area seeking redesignation. These two sections read together support EPA's interpretation of "applicable" as only those requirements that came due prior to submission of a complete redesignation request.

First, holding states to an ongoing obligation to adopt new CAA requirements that arose after the state submitted its redesignation request, in order to be redesignated, would make it problematic or impossible for EPA to act on redesignation requests in accordance with the 18-month deadline Congress set for EPA action in section 107(d)(3)(D). If "applicable requirements" were interpreted to be a continuing flow of requirements with no reasonable limitation, states, after submitting a redesignation request, would be forced continuously to make additional SIP

submissions that in turn would require EPA to undertake further notice-and-comment rulemaking actions to act on those submissions. This would create a regime of unceasing rulemaking that would delay action on the redesignation request beyond the 18-month timeframe provided by the CAA for this purpose.

Second, a fundamental premise for redesignating a nonattainment area to attainment is that the area has attained the relevant NAAQS due to emission reductions from existing controls. Thus, an area for which a redesignation request has been submitted would have already attained the NAAQS as a result of satisfying statutory requirements that came due prior to the submission of the request. Absent a showing that unadopted and unimplemented requirements are necessary for future maintenance, it is reasonable to view the requirements applicable for purposes of evaluating the redesignation request as including only those SIP requirements that have already come due. These are the requirements that led to attainment of the NAAQS. To require, for redesignation approval, that a state also satisfy additional SIP requirements coming due after the state submits its complete redesignation request, and while EPA is reviewing it, would compel the state to do more than is necessary to attain the NAAQS, without a showing that the additional requirements are necessary for maintenance.

In the context of this redesignation, the timing and nature of the D.C. Circuit Court's January 4, 2013 decision in *NRDC v. EPA*, and EPA's June 2, 2014 $PM_{2.5}$ Subpart 4 Classification and Deadline Rule compound the consequences of imposing requirements that come due after the redesignation request is submitted. Pennsylvania submitted its redesignation request for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS on September 5, 2014 for the Pennsylvania

portion of the Area, which is prior to the deadline by which the Area is required to meet the attainment plan and other requirements pursuant to subpart 4.

To require Pennsylvania's fully-completed and pending redesignation request for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS to comply now with requirements of subpart 4 that the D.C. Circuit Court announced only in January 2013 and for which the December 31, 2014 deadline to comply occurred subsequent to EPA's receipt of Pennsylvania's September 5, 2014 redesignation request, would be to give retroactive effect to such requirements and provide Pennsylvania a unique and earlier deadline for compliance solely on the basis of submitting its redesignation requests for the Area. The D.C. Circuit Court recognized the inequity of this type of retroactive impact in *Sierra Club v. Whitman*, 285 F.3d 63 (D.C. Cir. 2002),[3] where it upheld the D.C. Circuit Court's ruling refusing to make retroactive EPA's determination that the areas did not meet their attainment deadlines. In that case, petitioners urged the D.C. Circuit Court to make EPA's nonattainment determination effective as of the date that the statute required, rather than the later date on which EPA actually made the determination. The D.C. Circuit Court rejected this view, stating that applying it "would likely impose large costs on States, which would face fines and suits for not implementing air pollution prevention plans . . . even though they were not

on notice at the time." *Id.* at 68. Similarly, it would be unreasonable to penalize Pennsylvania by rejecting its September 2014 redesignation request for an area that EPA previously determined was attaining the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS and that met all

[3] *Sierra Club v. Whitman* was discussed and distinguished in a recent D.C. Circuit Court decision that addressed retroactivity in a quite different context, where, unlike the situation here, EPA sought to give its regulations retroactive effect. *National Petrochemical and Refiners Ass'n v. EPA*, 630 F.3d 145, 163 (D.C. Cir. 2010), rehearing denied 643 F.3d 958 (D.C. Cir. 2011), *cert denied* 132 S. Ct. 571 (2011).

applicable requirements known to be in effect at the time of the request. For EPA now to reject the redesignation request solely because Pennsylvania did not expressly address subpart 4 requirements which came due after receipt of such request and for which it had little to no notice, would inflict the same unfairness condemned by the D.C. Circuit Court in *Sierra Club v. Whitman*.

b. Subpart 4 Requirements and Pennsylvania's Redesignation Request

Even if EPA were to take the view that the D.C. Circuit Court's January 4, 2013 decision, or the June 2, 2014 $PM_{2.5}$ Subpart 4 Classification and Deadline Rule, requires that, in the context of pending redesignation request for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS, which were submitted prior to December 31, 2014, subpart 4 requirements must be considered as being due and in effect, EPA proposes to determine that the Area still qualifies for redesignation to attainment for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. As explained subsequently, EPA believes that the redesignation request for the Area, though not expressed in terms of subpart 4 requirements, substantively meets the requirements of that subpart for purposes of redesignating the Area to attainment for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS.

With respect to evaluating the relevant substantive requirements of subpart 4 for purposes of redesignating the Area, EPA notes that subpart 4 incorporates components of subpart 1 of part D, which contains general air quality planning requirements for areas designated as nonattainment. *See* section 172(c). Subpart 4 itself contains specific planning and scheduling requirements for coarse particulate matter (PM_{10})[4] nonattainment areas, and under the D.C. Circuit Court's January 4, 2013 decision in *NRDC v. EPA*, these same statutory requirements also apply for

[4] PM_{10} refers to particulates nominally 10 micrometers in diameter or smaller.

$PM_{2.5}$ nonattainment areas. EPA has longstanding general guidance that interprets the 1990 amendments to the CAA, making recommendations to states for meeting the statutory requirements for SIPs for nonattainment areas. *See* the General Preamble. In the General Preamble, EPA discussed the relationship of subpart 1 and subpart 4 SIP requirements, and pointed out that subpart 1 requirements were to an extent "subsumed by, or integrally related to, the more specific PM_{10} requirements" (57 FR 13538, April 16, 1992). The subpart 1 requirements include, among other things, provisions for attainment demonstrations, RACM, RFP, emissions inventories, and contingency measures.

For the purposes of this redesignation request, in order to identify any additional requirements which would apply under subpart 4, consistent with EPA's June 2, 2014 $PM_{2.5}$ Subpart 4 Classification and Deadline Rule, EPA is considering the areas to be "moderate" $PM_{2.5}$ nonattainment areas. As EPA explained in its June 2, 2014 rule, section 188 of the CAA provides that all areas designated nonattainment areas under subpart 4 are initially classified by operation of law as "moderate" nonattainment areas, and remain moderate nonattainment areas unless and until EPA reclassifies the area as a "serious" nonattainment area. Accordingly, EPA believes that it is appropriate to limit the evaluation of the potential impact of subpart 4 requirements to those that would be applicable to moderate nonattainment areas. Sections 189(a) and (c) of subpart 4 apply to moderate nonattainment areas and include the following: (1) an approved permit program for construction of new and modified major stationary sources (section 189(a)(1)(A)); (2) an attainment demonstration (section 189(a)(1)(B)); (3) provisions for RACM (section 189(a)(1)(C)); and (4) quantitative milestones demonstrating RFP toward attainment by the applicable attainment date (section 189(c)).

The permit requirements of subpart 4, as contained in section 189(a)(1)(A), refer to and apply the subpart 1 permit provisions requirements of sections 172 and 173 to PM_{10}, without adding to them. Consequently, EPA believes that section 189(a)(1)(A) does not itself impose for redesignation purposes any additional requirements for moderate areas beyond those contained in subpart 1.[5] In any event, in the context of redesignation, EPA has long relied on the interpretation that a fully approved nonattainment NSR program is not considered an applicable requirement for redesignation, provided the area can maintain the standard with a prevention of significant deterioration (PSD) program after redesignation. A detailed rationale for this view is described in a memorandum from Mary Nichols, Assistant Administrator for Air and Radiation, dated October 14, 1994, entitled, "Part D NSR Requirements for Areas Requesting Redesignation to Attainment." *See also* rulemakings for Detroit, Michigan (60 FR 12467-12468, March 7, 1995); Cleveland-Akron-Lorain, Ohio (61 FR 20458, 20469-20470, May 7, 1996); Louisville, Kentucky (66 FR 53665, October 23, 2001); and Grand Rapids, Michigan (61 FR 31834-31837, June 21, 1996). With respect to the specific attainment planning requirements under subpart 4,[6] when EPA evaluates a redesignation request under either subpart 1 or 4, any area that is attaining the $PM_{2.5}$ NAAQS is viewed as having satisfied the attainment planning requirements for these subparts. For redesignations, EPA has for many years interpreted attainment-linked requirements as not applicable for areas attaining the standard. In the General Preamble, EPA stated that: "The requirements for RFP will not apply in evaluating

[5] The potential effect of section 189(e) on section 189(a)(1)(A) for purposes of evaluating this redesignation is discussed in this rulemaking action.

[6] EPA refers to attainment demonstration, RFP, RACM, milestone requirements, and contingency measures.

a request for redesignation to attainment since, at a minimum, the air quality data for the area must show that the area has already attained. Showing that the State will make RFP towards attainment will, therefore, have no meaning at that point."

The General Preamble also explained that: "[t]he section 172(c)(9) requirements are directed at ensuring RFP and attainment by the applicable date. These requirements no longer apply when an area has attained the standard and is eligible for redesignation. Furthermore, section 175A for maintenance plans . . . provides specific requirements for contingency measures that effectively supersede the requirements of section 172(c)(9) for these areas." *Id.* EPA similarly stated in its 1992 Calcagni Memorandum that, "The requirements for reasonable further progress and other measures needed for attainment will not apply for redesignations because they only have meaning for areas not attaining the standard."

It is evident that even if we were to consider the D.C. Circuit Court's January 4, 2013 decision in *NRDC v. EPA*, or the June 2, 2014 $PM_{2.5}$ Subpart 4 Classification and Deadline Rule, to mean that attainment-related requirements specific to subpart 4 were either due prior to Pennsylvania's September 2014 redesignation request or became due subsequent to the September 2014 redesignation request and must now be imposed retroactively[7], those requirements do not apply to areas that are attaining the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS, for the purpose of evaluating a pending request to redesignate the areas to attainment. EPA has consistently enunciated this interpretation of applicable requirements under section 107(d)(3)(E) since the General Preamble was published more than twenty years ago. Courts have recognized the scope

[7] As EPA has explained above, we do not believe that the D.C. Circuit Court's January 4, 2013 decision should be interpreted so as to impose these requirements on the states retroactively. *Sierra Club v. Whitman*, *supra.*

of EPA's authority to interpret "applicable requirements" in the redesignation context. *See Sierra Club* v. *EPA,* 375 F.3d 537 (7th Cir. 2004).

Moreover, even outside the context of redesignations, EPA has viewed the obligations to submit attainment-related SIP planning requirements of subpart 4 as inapplicable for areas that EPA determines are attaining the1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS. EPA's prior "Clean Data Policy" rulemakings for the PM_{10} NAAQS, also governed by the requirements of subpart 4, explain EPA's reasoning. They describe the effects of a determination of attainment on the attainment-related SIP planning requirements of subpart 4. *See* "Determination of Attainment for Coso Junction Nonattainment Area," (75 FR 27944, May 19, 2010). *See also* Coso Junction Proposed PM_{10} Redesignation, (75 FR 36023, 36027, June 24, 2010); Proposed and Final Determinations of Attainment for San Joaquin Nonattainment Area (71 FR 40952, 40954–55, July 19, 2006; and 71 FR 63641, 63643–47, October 30, 2006). In short, EPA in this context has also long concluded that to require states to meet superfluous SIP planning requirements is not

necessary and not required by the CAA, so long as those areas continue to attain the relevant NAAQS.

As stated previously in this proposed rulemaking, on May 16, 2012 (77 FR 28782) and January 7, 2013 (78 FR 882), EPA made determinations that the entire Philadelphia Area had attained the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, respectively. Pursuant to 40 CFR 51.1004(c) and based on these determinations, the requirements for the Philadelphia Area to

submit an attainment demonstration and associated RACM, a RFP plan, contingency measures, and other planning SIPs related to the attainment of either the 1997 annual or 2006 24-hour $PM_{2.5}$ NAAQS were, and continue to be, suspended until such time as: the Area is redesignated to attainment for each standard, at which time the requirements no longer apply; or EPA determines that the Area has again violated any of the standards, at which time such plans are required to be submitted. Under its longstanding interpretation, EPA is proposing to determine here that the Area meets the attainment-related plan requirements of subparts 1 and 4 for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. Thus, EPA is proposing to conclude that the requirements to submit an attainment demonstration under 189(a)(1)(B), a RACM determination under section 172(c)(1) and section 189(a)(1)(c), a RFP demonstration under 189(c)(1), and contingency measure requirements under section 172(c)(9) are satisfied for purposes of evaluating this redesignation request.

c. Subpart 4 and Control of $PM_{2.5}$ Precursors

The D.C. Circuit Court in *NRDC v. EPA* remanded to EPA the two rules at issue in the case with instructions to EPA to re-promulgate them consistent with the requirements of subpart 4. EPA in this section addresses the D.C. Circuit Court's opinion with respect to $PM_{2.5}$ precursors. While past implementation of subpart 4 for PM_{10} has allowed for control of PM_{10} precursors, such as NOx from major stationary, mobile, and area sources in order to attain the standard as expeditiously as practicable, section 189(e) of the CAA specifically provides that control requirements for major stationary sources of direct PM_{10} shall also apply to PM_{10} precursors from those sources, except where EPA determines that major stationary sources of such precursors "do not contribute significantly to PM_{10} levels which exceed the standard in the area."

EPA's 1997 $PM_{2.5}$ Implementation Rule, remanded by the D.C. Circuit Court, contained rebuttable presumptions concerning certain $PM_{2.5}$ precursors applicable to attainment plans and control measures related to those plans. Specifically, in 40 CFR 51.1002, EPA provided, among other things, that a state was "not required to address VOC [and NH_3] as . . . $PM_{2.5}$ attainment plan precursor[s] and to evaluate sources of VOC [and NH_3] emissions in the State for control measures." EPA intended these to be rebuttable presumptions. EPA established these presumptions at the time because of uncertainties regarding the emission inventories for these pollutants and the effectiveness of specific control measures in various regions of the country in reducing $PM_{2.5}$ concentrations. EPA also left open the possibility for such regulation of VOC and NH_3 in specific areas where that was necessary.

The D.C. Circuit Court in its January 4, 2013 decision made reference to both section 189(e) and 40 CFR 51.1002, and stated that, "In light of our disposition, we need not address the petitioners' challenge to the presumptions in [40 CFR 51.1002] that VOCs and NH_3 are not $PM_{2.5}$ precursors, as subpart 4 expressly governs precursor presumptions." *NRDC v. EPA*, at 27, n.10.

Elsewhere in the D.C. Circuit Court's opinion, however, the D.C. Circuit Court observed: "NH_3 is a precursor to fine particulate matter, making it a precursor to both $PM_{2.5}$ and PM_{10}. For a PM_{10} nonattainment area governed by subpart 4, a precursor is presumptively regulated. *See* 42 U.S.C. § 7513a(e) [section 189(e)]." *Id.* at 21, n.7.

For a number of reasons, the redesignation of the Pennsylvania portion of the Area for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS is consistent with the D.C. Circuit Court's decision on this aspect of subpart 4. While the D.C. Circuit Court, citing section 189(e), stated that "for a PM_{10} area governed by subpart 4, a precursor is 'presumptively' regulated," the D.C. Circuit Court expressly declined to decide the specific challenge to EPA's 1997 $PM_{2.5}$ Implementation Rule provisions regarding NH_3 and VOC as precursors. The D.C. Circuit Court had no occasion to reach whether and how it was substantively necessary to regulate any specific precursor in a particular $PM_{2.5}$ nonattainment area, and did not address what might be necessary for purposes of acting upon a redesignation request.

However, even if EPA takes the view that the requirements of subpart 4 were deemed applicable at the time the state submitted the redesignation request, and disregards the 1997 $PM_{2.5}$ Implementation Rule's rebuttable presumptions regarding NH_3 and VOC as $PM_{2.5}$ precursors, the regulatory consequence would be to consider the need for regulation of all precursors from any sources in the Area to demonstrate attainment and to apply the section 189(e) provisions to major stationary sources of precursors. In the case of the Pennsylvania portion of the Area, EPA believes that doing so is consistent with proposing redesignation of the Pennsylvania portion of the Area for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. The Pennsylvania portion of the Area has attained the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS without any specific additional controls of NH_3 and VOC emissions from any sources in the Pennsylvania portion of the Area.

Precursors in subpart 4 are specifically regulated under the provisions of section 189(e), which requires, with important exceptions, control requirements for major stationary sources of PM_{10} precursors.[8] Under subpart 1 and EPA's prior implementation rule, all major stationary sources of $PM_{2.5}$ precursors were subject to regulation, with the exception of NH_3 and VOC. Thus, EPA must address here whether additional controls of NH_3 and VOC from major stationary sources are required under section 189(e) of subpart 4 in order to redesignate the Pennsylvania portion of the Area for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. As explained subsequently, EPA does not believe that any additional controls of NH_3 and VOC are required in the context of this redesignation.

In the General Preamble, EPA discusses its approach to implementing section 189(e). *See* 57 FR 13538-13542. With regard to precursor regulation under section 189(e), the General Preamble explicitly stated that control of VOC under other CAA requirements may suffice to relieve a state from the need to adopt precursor controls under section 189(e). *See* 57 FR 13542. EPA in this rulemaking action, proposes to determine that the Pennsylvania SIP revision has met the provisions of section 189(e) with respect to NH_3 and VOC as precursors. These proposed determinations are based on EPA's findings that: (1) The Pennsylvania portion of the Area contains no major stationary sources of NH_3; and (2) existing major stationary sources of VOC are adequately controlled under other provisions of the CAA regulating the ozone NAAQS.[9] In the alternative, EPA proposes to determine that, under the express exception provisions of

[8] Under either subpart 1 or subpart 4, for purposes of demonstrating attainment as expeditiously as practicable, a state is required to evaluate all economically and technologically feasible control measures for direct PM emissions and precursor emissions, and adopt those measures that are deemed reasonably available.

[9] The Areas have reduced VOC emissions through the implementation of various control programs including VOC Reasonably Available Control Technology (RACT) regulations and various on-road and non-road motor vehicle control programs.

section 189(e), and in the context of the redesignation of the Area, which is attaining the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS, at present NH_3 and VOC precursors from major stationary sources do not contribute significantly to levels exceeding the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS in the Area. *See* 57 FR 13539-42.

EPA notes that its 1997 $PM_{2.5}$ Implementation Rule provisions in 40 CFR 51.1002 were not directed at evaluation of $PM_{2.5}$ precursors in the context of redesignation, but at SIP plans and control measures required to bring a nonattainment area into attainment of the 1997 annual $PM_{2.5}$ NAAQS. By contrast, redesignation to attainment primarily requires the nonattainment area to have already attained due to permanent and enforceable emission reductions, and to demonstrate that controls in place can continue to maintain the standard. Thus, even if we regard the D.C. Circuit Court's January 4, 2013 decision as calling for "presumptive regulation" of NH_3 and VOC for $PM_{2.5}$ under the attainment planning provisions of subpart 4, those provisions in and of themselves do not require additional controls of these precursors for an area that already qualifies for redesignation. Nor does EPA believe that requiring Pennsylvania to address precursors differently than it has already would result in a substantively different outcome.

Although, as EPA has emphasized, its consideration here of precursor requirements under subpart 4 is in the context of a redesignation to attainment, EPA's existing interpretation of subpart 4 requirements with respect to precursors in attainment plans for PM_{10} contemplates that states may develop attainment plans that regulate only those precursors that are necessary for purposes of attainment in the area in question, i.e., states may determine that only certain

precursors need be regulated for attainment and control purposes.[10] Courts have upheld this approach to the requirements of subpart 4 for PM_{10}.[11] EPA believes that application of this approach to $PM_{2.5}$ precursors under subpart 4 is reasonable. Because the Area has already attained the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS with its current approach to regulation of $PM_{2.5}$ precursors, EPA believes that it is reasonable to conclude in the context of these redesignations that there is no need to revisit the attainment control strategy with respect to the treatment of precursors. Even if the D.C. Circuit Court's decision is construed to impose an obligation, in evaluating this redesignation request, to consider additional precursors under subpart 4, it would not affect EPA's approval here of Pennsylvania's request for redesignation of the Pennsylvania portion of the Area for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. In the context of a redesignation, Pennsylvania has shown that the Area has attained the standards. Moreover, Pennsylvania has shown and EPA has proposed to determine that attainment of the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS in this Area is due to permanent and enforceable emission reductions on all precursors necessary to provide for continued attainment of the standards. *See* Section V.A.3 of this rulemaking. It follows logically that no further control of additional precursors is necessary. Accordingly, EPA does not view the January 4, 2013 decision of the D.C. Circuit Court as precluding redesignation of the Area to attainment for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS at this time.

In summary, even if, prior to submitting its September 2014 redesignation request submittal or subsequent to such submission and prior to December 31, 2014, Pennsylvania was required to

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[10] *See*, *e.g.*, "Approval and Promulgation of Implementation Plans for California – San Joaquin Valley PM_{10} Nonattainment Area; Serious Area Plan for Nonattainment of the 24-Hour and Annual PM_{10} Standards," (69 FR 30006, May 26, 2004) (approving a PM_{10} attainment plan that impose controls on direct PM_{10} and NOx emissions and did not impose controls on SO_2, VOC, or NH_3 emissions).

[11] *See*, *e.g.*, *Assoc. of Irritated Residents v. EPA et al.*, 423 F.3d 989 (9th Cir. 2005).

address precursors for the Pennsylvania portion of the Area under subpart 4 rather than under subpart 1, as interpreted in EPA's remanded 1997 $PM_{2.5}$ Implementation Rule, EPA would still conclude that the Pennsylvania portion of the Area had met all applicable requirements for purposes of redesignation in accordance with section 107(d)(3(E)(ii) and (v) of the CAA.

V. EPA's Analysis of Pennsylvania's Submittal

EPA is proposing several rulemaking actions for the Pennsylvania portion of the Area: (1) to redesignate the Pennsylvania portion of the Area to attainment for both the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS; and (2) to approve into the Pennsylvania SIP the associated maintenance plan for both the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. EPA is also proposing in this rulemaking action to approve the 2007 comprehensive emissions inventory to satisfy section 172(c)(3) requirement for the 2006 24-hour $PM_{2.5}$ NAAQS, which is one of the criteria for redesignation. EPA's proposed approval of the redesignation request and maintenance plan for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS are based upon EPA's determination that the Area continues to attain both standards, which EPA is proposing in this rulemaking action, and that all other redesignation criteria have been met for the Pennsylvania portion of the Area. The following is a description of how Pennsylvania's September 5, 2014 submittal satisfies the requirements of the CAA including specifically section 107(d)(3)(E) for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS.

A. Redesignation Request

1. Attainment

As discussed previously in this proposed rulemaking action, in a final rulemaking action dated

May 16, 2012 (77 FR 28782), EPA determined that the entire Philadelphia Area attained the 1997 annual $PM_{2.5}$ NAAQS by its applicable attainment date, based upon quality-assured and certified ambient air quality monitoring data for the period of 2007-2009, and continued to attain that standard based upon quality-assured and certified ambient air quality monitoring data for the period of 2008-2010. In a separate rulemaking action dated January 7, 2013 (78 FR 882), EPA determined that the Philadelphia Area attained the 2006 24-hour $PM_{2.5}$ NAAQS, based on quality-assured and certified ambient air quality monitoring data for 2008-2010 and 2009-2011. The basis and effect of these determinations of attainment for both the 1997 and 2006 $PM_{2.5}$ NAAQS were discussed in the notices of the proposed (77 FR 3147 and 77 FR 60089, respectively) and final (77 FR 28782 and 78 FR 882, respectively) rulemakings.

EPA has reviewed the ambient air quality $PM_{2.5}$ monitoring data in the Philadelphia Area, consistent with the requirements contained in 40 CFR part 50, and recorded in EPA's Air Quality System (AQS), including quality-assured, quality-controlled, and state-certified data for the monitoring periods 2009-2011, 2010-2012, 2011-2013, and preliminary data for 2012-2014. The air quality data, included in the docket for this proposed rulemaking action, show that the Philadelphia Area continues to attain both the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS. The Area's annual and 24-hour $PM_{2.5}$ design values[12] are provided in Tables 1 and 2, respectively.

Table 1. Philadelphia Area's Annual Design Values for the 1997 annual $PM_{2.5}$ Standard for the 2009-2013 Monitoring Periods, in µg/m^3

State	County	Annual Design Values

[12] As defined in 40 CFR part 50, Appendix N, section (1)(c).

		2009-2011	2010-2012	2011-2013	Preliminary 2012-2014
Delaware	New Castle	10.7	10.4	10.0	9.9
New Jersey	Camden	9.7	9.7	10.1	10.5
	Burlington	No monitor			
	Gloucester	9.3	9.3	9.3	9.4
Pennsylvania	Bucks	10.9	10.9	10.8	10.6
	Chester	13.7	12.3	11.1	9.9
	Delaware	12.9	13.1	12.4	12.3
	Montgomery	10.1	9.8	9.8	9.3
	Philadelphia	11.4	11.0	11.1	12.4
Area's Annual Design Value		**13.7**	**13.1**	**12.4**	**12.4**

Source: AQS Design Value Report dated December 12, 2014

Table 2. Philadelphia Area's 24-Hour Design Values for the 2006 24-hour $PM_{2.5}$ Standard for the 2009 – 2013 Monitoring Periods, in µg/m^3

State	County	24-Hour Design Values			
		2009-2011	2010-2012	2011-2013	Preliminary 2012-2014
Delaware	New Castle	27	26	25	25
New Jersey	Camden	24	23	25	26
	Burlington	No monitor			
	Gloucester	22	22	23	24
Pennsylvania	Bucks	28	29	30	30
	Chester	33	31	28	26
	Delaware	30	31	29	30
	Montgomery	27	25	26	25
	Philadelphia	34	29	28	30
Area's Annual Design Value		**34**	**31**	**30**	**30**

Source: AQS Design Value Report dated December 12, 2014

EPA's review of the monitoring data from 2009 through 2013 supports EPA's previous determinations that the Area has attained the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, and that the Area continues to attain both standards. Preliminary 2014 data, currently uncertified, is consistent with a finding that the Area is expected to continue to attain both standards. States are required to certify 2014 data by May 1, 2015. In addition, as discussed subsequently, with respect to the maintenance plan, Pennsylvania has committed to continue monitoring ambient

$PM_{2.5}$ concentrations in accordance with 40 CFR part 58. Thus, based upon an analysis of currently available data, EPA is proposing to determine that the Philadelphia Area continues to attain the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS.

2. The Area has Met All Applicable Requirements under Section 110 and Subpart 1 of the CAA and has a Fully Approved SIP under Section 110(k)

In accordance with section 107(d)(3)(E)(v), the SIP revision for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS for the Pennsylvania portion of the Philadelphia Area must be fully approved under section 110(k) and all the requirements applicable to the Pennsylvania portion of the Area under section 110 of the CAA (general SIP requirements) and part D of Title I of the CAA (SIP requirements for nonattainment areas) must be met.

a. Section 110 General SIP Requirements

Section 110(a)(2) of Title I of the CAA delineates the general requirements for a SIP, which include enforceable emissions limitations and other control measures, means, or techniques, provisions for the establishment and operation of appropriate devices necessary to collect data on ambient air quality, and programs to enforce the limitations. The general SIP elements and requirements set forth in section 110(a)(2) include, but are not limited to the following:

- Submittal of a SIP that has been adopted by the state after reasonable public notice and hearing;
- Provisions for establishment and operation of appropriate procedures needed to monitor ambient air quality;
- Implementation of a minor source permit program; provisions for the implementation of

Part C requirements (PSD);

- Provisions for the implementation of Part D requirements for NSR permit programs;
- Provisions for air pollution modeling; and
- Provisions for public and local agency participation in planning and emission control rule development.

Section 110(a)(2)(D) of the CAA requires that SIPs contain certain measures to prevent sources in a state from significantly contributing to air quality problems in another state. To implement this provision for various NAAQS, EPA has required certain states to establish programs to address transport of air pollutants in accordance with EPA's Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone (63 FR 57356, October 27, 1998), also known as the NO_X (oxides of nitrogen) SIP Call; amendments to the NO_X SIP Call (64 FR 26298, May 14, 1999 and 65 FR 11222, March 2, 2000), and CAIR (70 FR 25162, May 12, 2005), and CSAPR. However, section 110(a)(2)(D) requirements for a state are not linked with a particular nonattainment area's designation and classification in that state. EPA believes that the requirements linked with a particular nonattainment area's designation and classifications are the relevant measures to evaluate in reviewing a redesignation request. The transport SIP submittal requirements, where applicable, continue to apply to a state regardless of the designation of any one particular area in the state. Thus, EPA does not believe that these requirements are applicable requirements for purposes of redesignation.

In addition, EPA believes that the other section 110(a)(2) elements not connected with

nonattainment plan submissions and not linked with an area's attainment status are not applicable requirements for purposes of redesignation. The Pennsylvania portion of the Philadelphia Area will still be subject to these requirements after it is redesignated. EPA concludes that the section 110(a)(2) and part D requirements which are linked with a particular area's designation and classification are the relevant measures to evaluate in reviewing a redesignation request, and that section 110(a)(2) elements not linked to the area's nonattainment status are not applicable for purposes of redesignation. This approach is consistent with EPA's existing policy on applicability of conformity (i.e., for redesignations) and oxygenated fuels requirement. *See* Reading, Pennsylvania, proposed and final rulemakings (61 FR 53174, October 10, 1996), (62 FR 24826, May 7, 1997); Cleveland-Akron-Lorain, Ohio final rulemaking (61 FR 20458, May 7, 1996); and Tampa, Florida, final rulemaking (60 FR 62748, December 7, 1995). *See* also, the discussion on this issue in the Cincinnati, Ohio redesignation (65 FR at 37890, June 19, 2000), and in the Pittsburgh-Beaver Valley, Pennsylvania redesignation (66 FR at 53099, October 19, 2001).

EPA has reviewed the Pennsylvania SIP and has concluded that it meets the general SIP requirements under section 110(a)(2) of the CAA to the extent they are applicable for purposes of redesignation. EPA has previously approved provisions of Pennsylvania's SIP addressing section 110(a)(2) requirements, including provisions addressing $PM_{2.5}$. *See* 77 FR 58955 (September 25, 2012). These requirements are, however, statewide requirements that are not linked to the $PM_{2.5}$ nonattainment status of the Philadelphia Area. Therefore, EPA believes that these SIP elements are not applicable requirements for purposes of review of the Commonwealth's $PM_{2.5}$ redesignation request.

b. Subpart 1 Requirements

Subpart 1 sets forth the basic nonattainment plan requirements applicable to $PM_{2.5}$ nonattainment areas. Under section 172, states with nonattainment areas must submit plans providing for timely attainment and must meet a variety of other requirements.

The General Preamble for Implementation of Title I discusses the evaluation of these requirements in the context of EPA's consideration of a redesignation request. The General Preamble sets forth EPA's view of applicable requirements for purposes of evaluating redesignation requests when an area is attaining the standard. *See* 57 FR 13498, April 16, 1992.

As mentioned previously, on May 16, 2012 (77 FR 28782), EPA made a determination that the Philadelphia Area had attained the 1997 annual $PM_{2.5}$ NAAQS. This determination of attainment was based upon quality-assured and certified ambient air quality monitoring data for the period of 2007-2009 showing that the entire Area had attained the standard by its applicable attainment date, and 2008-2010 data showing that the Area continued to attain the standard. In a separate rulemaking action, dated January 7, 2013 (78 FR 882), EPA made a determination of attainment for the Philadelphia Area for the 2006 24-hour $PM_{2.5}$ NAAQS, based on quality-assured and certified ambient air quality monitoring data for the 2008-2010 and 2009-2011 monitoring periods.

Pursuant to 40 CFR 51.2004(c), upon these determinations by EPA that the Area has attained the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, the requirement for Pennsylvania to submit for

the Pennsylvania portion of the Area an attainment demonstration and associated RACM, a RFP plan, contingency measures, and other planning SIPs related to the attainment of the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS were suspended until the Pennsylvania portion of the Area is redesignated to attainment for each standard or EPA determines that the Area has again violated either of the standards, at which time such plans are required to be submitted. Thus, because attainment has been reached for the Area for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS and the Area continues to attain both standards, no additional measures are needed to provide for attainment. Therefore, the requirements of sections 172(c)(1), 172(c)(2), 172(c)(6), and 172(c)(9) are no longer considered to be applicable for purposes of redesignation of the Area for both standards.

However, determinations of attainment do not preclude states from submitting and EPA from approving planning SIP revisions for the 1997 or 2006 $PM_{2.5}$ NAAQS. On April 12, 2010, as amended on August 2, 2012, PADEP submitted an attainment plan for the Pennsylvania portion of the Philadelphia Area for the 1997 annual $PM_{2.5}$ NAAQS, which included a 2002 comprehensive emissions inventory. On August 28, 2012 (77 FR 51930), EPA approved Pennsylvania's attainment plan for the 1997 $PM_{2.5}$ NAAQS for the Pennsylvania portion of the Philadelphia Area, which included the 2002 emissions inventory, MVEBs for transportation conformity purposes for the five counties in the Pennsylvania portion of the Philadelphia Area, and contingency measures.

Section 172(c)(4) of the CAA requires the identification and quantification of allowable emissions for major new and modified stationary sources in an area, and section 172(c)(5)

requires source permits for the construction and operation of new and modified major stationary sources anywhere in the nonattainment area. EPA has determined that, since PSD requirements will apply after redesignation, areas being redesignated need not comply with the requirement that a nonattainment NSR program be approved prior to redesignation, provided that the area demonstrates maintenance of the NAAQS without part D NSR. A more detailed rationale for this view is described in a memorandum from Mary Nichols, Assistant Administrator for Air and Radiation, dated October 14, 1994, entitled, "Part D New Source Review Requirements for Areas Requesting Redesignation to Attainment." Nevertheless, Pennsylvania currently has an approved NSR program codified in Pennsylvania's regulation at 25 Pa. Code 127.201 *et seq*. *See* 77 FR 41276 (July 13, 2012) (approving NSR program into the SIP). *See also* 49 FR 33127 (August 21, 1984) (approving Pennsylvania's PSD program). However, Pennsylvania's PSD program for $PM_{2.5}$ will become effective in the Philadelphia Area upon redesignation to attainment.

Section 172(c)(7) of the CAA requires the SIP to meet the applicable provisions of section 110(a)(2). As noted previously, EPA believes the Pennsylvania SIP meets the requirements of section 110(a)(2) that are applicable for purposes of redesignation.

As a result of EPA's determinations of attainment of the Area for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, respectively, the only remaining requirement under section 172 to be considered for the 2006 24-hour $PM_{2.5}$ standard is the comprehensive emissions inventory required under section 172(c)(3). Section 172(c)(3) of the CAA requires submission of a comprehensive, accurate, and current inventory of actual emissions. For purposes of the $PM_{2.5}$

NAAQS, this emissions inventory should address not only direct emissions of $PM_{2.5}$, but also emissions of all precursors with the potential to participate in $PM_{2.5}$ formation, i.e., SO_2, NOx, VOC and NH_3.

PADEP's April 12, 2010 attainment plan submittal, as amended on August 2, 2012, for the 1997 annual $PM_{2.5}$ NAAQS is relevant to this proposed rulemaking action to redesignate the Pennsylvania portion of the Area only with respect to the comprehensive emissions inventory requirement of section 172(c)(3) for the 1997 annual $PM_{2.5}$ NAAQS. On August 28, 2012 (77 FR 51930), EPA approved the 2002 comprehensive emissions inventory included in the attainment plan for the 1997 annual $PM_{2.5}$ NAAQS, to meet the requirement of section 172(c)(3) for this standard. The 2002 comprehensive emissions inventory for the 1997 annual $PM_{2.5}$ NAAQS includes emissions estimates that cover the general source categories of point sources, area sources, on-road mobile sources, and non-road mobile sources. The pollutants that comprise the 2002 emissions inventory are $PM_{2.5}$, NOx, SO_2, VOC, and NH_3. An evaluation of Pennsylvania's 2002 comprehensive emissions inventory for the Philadelphia portion of the Area is provided in the Technical Support Document (TSD) prepared by EPA for the August 28, 2012 rulemaking action. *See* Docket ID No. EPA–R03–OAR–2010–0391.

To satisfy the 172(c)(3) requirement for the 2006 24-hour $PM_{2.5}$ NAAQS, Pennsylvania's September 5, 2014 redesignation request and maintenance plan for the 2006 24-hour $PM_{2.5}$ NAAQS contains a 2007 comprehensive emissions inventory. PADEP has submitted the 2007 emissions inventory to fulfill its obligation to submit a comprehensive inventory under CAA section 172(c)(3), because that inventory has gone through extensive quality assurance. The

2007 emissions inventory was the most current, accurate and comprehensive emissions inventory of direct $PM_{2.5}$, NO_X, SO_2, VOC, and NH_3 for the Area. Thus, as part of this rulemaking action, EPA is proposing to approve Pennsylvania's 2007 comprehensive emissions inventory for the 2006 24-hour $PM_{2.5}$ NAAQS as satisfying the requirement of section 172(c)(3) of the CAA for this standard. Final approval of the 2007 base year emissions inventory will satisfy the emissions inventory requirement under section 172(c)(3) of the CAA for the 2006 24-hour $PM_{2.5}$ NAAQS. The 2007 comprehensive emissions inventory addresses the general source categories of point sources, area sources, on-road mobile sources, and non-road mobile sources. A summary of the 2007 comprehensive emissions inventory is shown in Table 3. For more information on EPA's analysis of the 2007 emissions inventory, *see* the TSD prepared by the EPA Region III Office of Air Monitoring and Analysis dated December 23, 2014, "Technical Support Document (TSD) for the Redesignation Request and Maintenance Plan for the Pennsylvania Portion of the Philadelphia-Wilmington, PA-NJ-DE 1997 $PM_{2.5}$ Nonattainment Area" and "Technical Support Document (TSD) for the Redesignation Request and Maintenance Plan for the Pennsylvania Portion of the Philadelphia-Wilmington, PA-NJ-DE 2006 $PM_{2.5}$ Nonattainment Area" ("Inventory TSDs"), available in the docket for this rulemaking action at www.regulations.gov. *See* Docket ID No. EPA-R03-OAR-2014-0868.

Table 3. 2007 Emissions for the Pennsylvania portion of the Philadelphia Area, in tons per year (tpy)

Sector	***$PM_{2.5}$***	***NOx***	***SO_2***	***VOC***	***NH_3***
Point	2,444	20,744	19,633	6,281	743
Area	7,722	12,925	15,005	47,568	3,293
Onroad	2,386	69,327	508	29,293	1,270
Nonroad	1,562	20,393	3,375	18,751	23
Total	**14,114**	**123,390**	**38,520**	**101,894**	**5,329**

Section 175A requires a state seeking redesignation to attainment to submit a SIP revision to provide for the maintenance of the NAAQS in the area "for at least 10 years after the redesignation." In conjunction with its request to redesignate the Pennsylvania portion of the Area to attainment status, Pennsylvania submitted a SIP revision on September 5, 2014 to provide for maintenance of the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS in the Pennsylvania portion of the Area for at least 10 years after redesignation, throughout 2025. Pennsylvania is requesting that EPA approve this SIP revision as meeting the requirement of CAA section 175A for both NAAQS. Once approved, the maintenance plan for the Pennsylvania portion of the Area will ensure that the SIP for Pennsylvania meets the requirements of the CAA regarding maintenance of the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS for the Pennsylvania portion of the Area. EPA's analysis of the maintenance plan is provided in Section V.B. of this proposed rulemaking action.

Section 176(c) of the CAA requires states to establish criteria and procedures to ensure that Federally supported or funded projects conform to the air quality planning goals in the applicable SIP. The requirement to determine conformity applies to transportation plans, programs, and projects that are developed, funded or approved under Title 23 of the United States Code (U.S.C.) and the Federal Transit Act (transportation conformity) as well as to all other Federally supported or funded projects (general conformity). State transportation conformity SIP revisions must be consistent with Federal conformity regulations relating to consultation, enforcement and enforceability which EPA promulgated pursuant to its authority under the CAA. EPA interprets the conformity SIP requirements as not applying for purposes of evaluating a redesignation request under CAA section 107(d) because state conformity rules are still required after

redesignation, and Federal conformity rules apply where state rules have not been approved. *See Wall v. EPA*, 265 F. 3d 426 (6th Cir. 2001) (upholding this interpretation) and (60 FR 62748, December 7, 1995) (discussing Tampa, Florida).

Thus, for purposes of redesignating to attainment the Pennsylvania portion of the Area for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, EPA determines that Pennsylvania has met all the applicable SIP requirements under part D of Title I of the CAA. EPA also determines that upon final approval of the 2007 comprehensive emissions inventory as proposed in this rulemaking action, Pennsylvania will also meet all the applicable SIP requirements under part D of Title I of the CAA for purposes of redesignating the Area to attainment for the 2006 24-hour $PM_{2.5}$ NAAQS.

c. The Pennsylvania Portion of the Area has a Fully Approved Applicable SIP Under Section 110(k) of the CAA

For purposes of redesignation to attainment for the 1997 annual $PM_{2.5}$ NAAQS, EPA has fully approved all applicable requirements of Pennsylvania's SIP for the Pennsylvania portion for the Area in accordance with section 110(k) of the CAA. Upon final approval of the 2007 comprehensive emissions inventory as proposed in this rulemaking action, EPA will have fully approved all applicable requirements of Pennsylvania's SIP for the Pennsylvania portion of the Area for purposes of redesignation to attainment for the 2006 24-hour $PM_{2.5}$ NAAQS in accordance with section 110(k) of the CAA.

3. Permanent and Enforceable Reductions in Emissions

For redesignating a nonattainment area to attainment, section 107(d)(3)(E)(iii) requires EPA to determine that the air quality improvement in the area is due to permanent and enforceable reductions in emissions resulting from implementation of the SIP and applicable Federal air pollution control regulations and other permanent and enforceable reductions. Pennsylvania has calculated the change in emissions between 2002, a year showing nonattainment for the 1997 annual $PM_{2.5}$ NAAQS in the Pennsylvania portion of the Philadelphia Area, and 2007, one of the years for which the Philadelphia Area monitored attainment for the 1997 annual $PM_{2.5}$ NAAQS. For the 2006 24-hour daily standard, 2008 was a year in which the Area attained the standard. Appendix F-1 of Pennsylvania's September 5, 2014 submittal provides a comparison between the 2007 and the 2008 inventories, and the projected reductions between 2025 and 2007 and between 2025 and 2008. The analysis shows that the 2007 emission inventory is comparable to the 2008 emission inventory for the Philadelphia portion of the Area. Pennsylvania has shown that the 2007 emission inventory is an appropriate and representative emission inventory to use as a surrogate for the 2008 inventory.

A summary of the emissions reductions of $PM_{2.5}$, NOx, SO_2, VOC, and NH_3 from 2002 to 2007 in the Pennsylvania portion of the Philadelphia Area, submitted by PADEP, is provided in Table 4. For more information on EPA's analysis of the 2007 emissions inventories, see EPA's Inventory TSDs, dated December 23, 2014, available in the docket for this rulemaking action at www.regulations.gov.

Table 4. Emission Reductions from 2002 to 2007 in the Pennsylvania Portion of the Philadelphia Area (tpy)

	Sector	2002	2007	Net Reduction	Percent Reduction

				2002-2007	2002-2007
$PM_{2.5}$	Point	2,139	2,444	-305	-14.3
	Area	10,020	7,722	2,298	22.7
	On-road	2,905	2,386	518	17.8
	Non-road	1,535	1,562	-27	-1.8
	Total	**16,598**	**14,114**	**2,484**	**15.0**
NO_X	Point	22,124	20,744	1,380	6.2
	Area	13,029	12,925	105	0.8
	On-road	90,879	69,327	21,552	23.7
	Non-road	21,619	20,393	1,226	5.7
	Total	**147,651**	**123,390**	**24,262**	**16.3**
SO_2	Point	23,745	19,633	4,112	17.3
	Area	13,153	15,005	-1,852	-14.1
	On-road	1,848	508	1,340	72.6
	Non-road	1,640	3,375	-1,735	-1.1
	Total	**40,387**	**38,520**	**1,866**	**4.6**
VOC	Point	8,183	6,281	1,903	23.3
	Area	59,227	47,568	11,659	19.7
	On-road	32,150	29,293	2,856	8.9
	Non-road	21,589	18,751	2,838	13.1
	Total	**121,149**	**101,894**	**19,256**	**15.9**
NH_3	Point	256	743	-487	-190
	Area	4,821	3,293	1,529	31.7
	On-road	1,451	1,270	181	12.5
	Non-road	14	23	-9	-64.3
	Total	**6,542**	**5,329**	**1,213**	**18.5**

The reduction in emissions and the corresponding improvement in air quality from 2002 to 2007 for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, respectively, in the Pennsylvania portion of the Philadelphia Area can be attributed to a number of regulatory control measures that have been implemented in the Area and contributing areas in recent years.

a. Federal Measures Implemented

Reductions in $PM_{2.5}$ precursor emissions have occurred statewide and in upwind states as a result of Federal emission control measures, with additional emission reductions expected to occur in

the future.

Control of NOx and SO_2

$PM_{2.5}$ concentrations in the Philadelphia Area are impacted by the transport of sulfates and nitrates, and the Area's air quality is strongly affected by regulation of SO_2 and NOx emissions from power plants.

NOx SIP Call - On October 27, 1998 (63 FR 57356), EPA issued the NOx SIP Call requiring the District of Columbia and 22 states to reduce emissions of NOx, a precursor to ozone pollution.[13] Affected states were required to comply with Phase I of the SIP Call beginning in 2004 and Phase II beginning in 2007. Emission reductions resulting from regulations developed in response to the NOx SIP Call are permanent and enforceable. By imposing an emissions cap regionally, the NOx SIP Call reduced NOx emissions from large EGUs and large non-EGUs such

as industrial boilers, internal combustion engines, and cement kilns. In response to the NOx SIP Call, Pennsylvania adopted its NOx Budget Trading Program regulations for EGUs and large industrial boilers, with emission reductions starting in May 2003. Pennsylvania's NOx Budget Trading Program regulation was approved into the Pennsylvania SIP on August 21, 2001 (66 FR 43795). To meet other requirements of the NOx SIP Call, Pennsylvania adopted NOx control regulations for cement plants and internal combustion engines, with emission reductions starting in May 2005. These regulations were approved into the Pennsylvania SIP on September 29, 2006 (71 FR 57428).

[13]Although the NOx SIP Call was issued in order to address ozone pollution, reductions of NOx as a result of that program have also impacted $PM_{2.5}$ pollution, for which NOx is also a precursor emission.

CAIR - As previously noted, CAIR (70 FR 25162, May 12, 2005) created regional cap-and-trade programs to reduce SO_2 and NO_X emissions in 27 eastern states, including Pennsylvania. EPA approved the Commonwealth's CAIR regulation, codified in 25 Pa. Code Chapter 145, Subchapter D, into the Pennsylvania SIP on December 10, 2009 (74 FR 65446). In 2009, the CAIR ozone season NOx trading program superseded the NOx Budget Trading Program, although the emission reduction obligations of the NOx SIP Call were not rescinded. *See* 40 CFR 51.121(r) and 51.123(aa). EPA promulgated CSAPR to replace CAIR as an emission trading program for EGUs. As discussed previously, pursuant to the D.C. Circuit Court's October 23, 2014 Order, the stay of CSAPR has been lifted and implementation of CSAPR commenced in January 2015. EPA expects that the implementation of CSAPR will preserve the reductions achieved by CAIR and result in additional SO_2 and NOx emission reductions throughout the maintenance period.

Tier 2 Emission Standards for Vehicles and Gasoline Sulfur Standards

These emission control requirements result in lower NOx emissions from new cars and light duty trucks, including sport utility vehicles. The Federal rules were phased in between 2004 and 2009. EPA estimated that, after phasing in the new requirements, the following vehicle NOx emission reductions will have occurred nationwide: Passenger cars (light duty vehicles) (77 percent); light duty trucks, minivans, and sports utility vehicles (86 percent); and larger sports utility vehicles, vans, and heavier trucks (69 to 95 percent). Some of the emissions reductions resulting from new vehicle standards occurred during the 2008-2010 attainment period; however,

additional reductions will continue to occur throughout the maintenance period as new vehicles replace older vehicles. EPA expects fleet wide average emissions to decline by similar percentages as new vehicles replace older vehicles.

Heavy-Duty Diesel Engine Rule

EPA issued the Heavy-Duty Diesel Engine Rule in July 2000. This rule included standards limiting the sulfur content of diesel fuel, which went into effect in 2004. A second phase took effect in 2007 which reduced $PM_{2.5}$ emissions from heavy-duty highway engines and further reduced the highway diesel fuel sulfur content to 15 parts per million (ppm). Standards for gasoline engines were phased in starting in 2008. The total program is estimated to achieve a 90 percent reduction in direct $PM_{2.5}$ emissions and a 95 percent reduction in NOx emissions for new engines using low sulfur diesel fuel.

Nonroad Diesel Rule

On June 29, 2004 (69 FR 38958), EPA promulgated the Nonroad Diesel Rule for large nonroad diesel engines, such as those used in construction, agriculture, and mining, to be phased in between 2008 and 2014. The rule phased in requirements for reducing the sulfur content of diesel used in nonroad diesel engines. The reduction in sulfur content prevents damage to the more advanced emission control systems needed to meet the engine standards. It will also reduce fine particulate emissions from diesel engines. The combined engine standards and the sulfur in fuel reductions will reduce NOx and PM emissions from large nonroad engines by over 90 percent, compared to current nonroad engines using higher sulfur content diesel.

Nonroad Large Spark-Ignition Engine and Recreational Engine Standards

In November 2002, EPA promulgated emission standards for groups of previously unregulated nonroad engines. These engines include large spark-ignition engines such as those used in forklifts and airport ground-service equipment; recreational vehicles using spark-ignition engines such as off-highway motorcycles, all-terrain vehicles, and snowmobiles; and recreational marine diesel engines. Emission standards from large spark-ignition engines were implemented in two tiers, with Tier 1 starting in 2004 and Tier 2 in 2007. Recreational vehicle emission standards are being phased in from 2006 through 2012. Marine Diesel engine standards were phased in from 2006 through 2009. With full implementation of all of the nonroad spark-ignition engine and recreational engine standards, an overall 80 percent reduction in NOx are expected by 2020. Some of these emission reductions occurred by the 2002-2007 attainment period and additional emission reductions will occur during the maintenance period as the fleet turns over.

Federal Standards for Hazardous Air Pollutants

As required by the CAA, EPA developed Maximum Available Control Technology (MACT) Standards to regulate emissions of hazardous air pollutants from a published list of industrial sources referred to as "source categories." The MACT standards have been adopted and incorporated by reference in Section 6.6 of Pennsylvania's Air Pollution Control Act and implementing regulations in 25 Pa. Code § 127.35 and are also included in Federally enforceable permits issued by PADEP for affected sources. The Industrial/Commercial/Institutional (ICI) Boiler MACT standards (69 FR 55217, September 13, 2004, and 76 FR 15554, February 21, 2011) are estimated to reduce emissions of PM, SO_2, and VOCs from major source boilers and process heaters nationwide. Also, the Reciprocating Internal Combustion Engines (RICE)

MACT will reduce NOx and PM emissions from engines located at facilities such as pipeline compressor stations, chemical and manufacturing plants, and power plants.

b. State Measures

Heavy-Duty Diesel Emissions Control Program

In 2002, Pennsylvania adopted the Heavy-Duty Diesel Emissions Control Program for model years starting in May 2004. The program incorporates California standards by reference and required model year 2005 and beyond heavy-duty diesel highway engines to be certified to the California standards, which were more stringent than the Federal standards for model years 2005 and 2006. After model year 2006, Pennsylvania required implementation of the Federal standards that applied to model years 2007 and beyond, discussed in the Federal measures section of this proposed rulemaking action. This program reduced emissions of NOx statewide.

Vehicle Emission Inspection/Maintenance (I/M) program

The Pennsylvania portion of the Area has had a vehicle emissions inspection program since 1984, and in 2004, Pennsylvania revised the implementation of its Vehicle Emission I/M program in the five-counties that comprise the Pennsylvania portion of the Area, and applies to model year 1975 and newer gasoline-powered vehicles that are 9,000 pounds and under. The program, approved into the Pennsylvania SIP on October 6, 2005 (70 FR 58313), consists of annual on-board diagnostics and gas cap test for model year 1996 vehicles and newer, and an annual visual inspection of pollution control devices and gas cap test for model year 1995 vehicles and older. This program reduces emissions of NOx from affected vehicles.

Consumer Products Regulation

Pennsylvania regulation "Chapter 130, Subchapter B. Consumer Products" established, effective January 1, 2005, VOC emission limits for numerous categories of consumer product, and applies statewide to any person who sells, supplies, offers for sale, or manufactures such consumer products on or after January 1, 2005 for use in Pennsylvania. It was approved into the Pennsylvania SIP on December 8, 2004 (69 FR 70895).

Based on the information summarized above, Pennsylvania has adequately demonstrated that the improvement in air quality in the Pennsylvania portion of the Philadelphia Area are due to permanent and enforceable emissions reductions. The reductions result from Federal and State requirements and regulation of precursors within Pennsylvania that affect the Pennsylvania portion of the Philadelphia Area.

B. Maintenance Plan

On September 5, 2014, PADEP submitted a combined maintenance plan for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, as required by section 175A of the CAA. EPA's analysis for proposing approval of the maintenance plan is provided in this section.

1. Attainment Emissions Inventories

An attainment inventory is comprised of the emissions during the time period associated with the monitoring data showing attainment. PADEP determined that the appropriate attainment inventory year for the maintenance plan for the 1997 annual $PM_{2.5}$ NAAQS is 2007, one of the years in the periods during which the Philadelphia Area monitored attainment of the 1997 annual

$PM_{2.5}$ NAAQS. As discussed previously in this proposed rulemaking, for the 2006 24-hour $PM_{2.5}$ NAAQS, 2008 was a year in which the Area attained the standard. Appendix F-1 of Pennsylvania's September 5, 2014 submittal provides a comparison between the 2007 and the 2008 inventories, and the projected reductions between 2025 and 2007 and between 2025 and 2008. The analysis shows that the 2007 emission inventory is comparable to the 2008 emission inventory for the Philadelphia portion of the Area. Pennsylvania has shown that the 2007 emission inventory is an appropriate and representative emission inventory to use as a surrogate for the 2008 inventory.

In its redesignation request and maintenance plan for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, PADEP described the methods used for developing its 2007 inventory. The 2007 inventory included the primary $PM_{2.5}$ emissions (including condensables), SO_2, NOx, VOC, and NH_3. EPA reviewed the procedures used to develop the projected inventory and found them to be reasonable. EPA has reviewed the documentation provided by PADEP and found the 2007 emissions inventory to be approvable. For more information on EPA's analysis of the 2007 emissions inventory, *see* EPA's Inventory TSDs, dated December 23, 2014, available in the docket for this rulemaking action at www.regulations.gov.

2. Maintenance Demonstration

Section 175A requires a state seeking redesignation to attainment to submit a SIP revision to provide for the maintenance of the NAAQS in the area "for at least 10 years after the redesignation." EPA has interpreted this as a showing of maintenance "for a period of ten years following redesignation." The Federal and State measures described in Section V.A.3 of this

proposed rulemaking action demonstrate that the reductions in emissions from point, area, and mobile sources in the Area has occurred and will continue to occur through 2025. In addition, the following State and Federal regulations and programs ensure the continuing decline of SO_2, NOx, $PM_{2.5}$, and VOC emissions in the Area during the maintenance period and beyond:

Non-EGUs previously covered under the NOx SIP Call

Pennsylvania established NOx emission limits for the large industrial boilers that were previously subject to the NOx SIP Call, but were not subject to CAIR. For these units, Pennsylvania established an allowable ozone season NOx limit based on the unit's previous ozone season's heat input. A combined NOx ozone season emissions cap of 3,418 tons applies for all of these units.

CSAPR (August 8, 2011, 76 FR 48208)

EPA promulgated CSAPR to replace CAIR as an emission trading program for EGUs. As discussed previously implementation of CSAPR commenced in January 2015. EPA expects that the implementation of CSAPR will preserve the reductions achieved by CAIR and result in additional SO_2 and NOx emission reductions throughout the maintenance period.

Regulation of Cement Kilns

On July 19, 2011 (76 FR 52558), EPA approved amendments to 25 Pa. Code Chapter 145 Subchapter C to further reduce NOx emissions from cement kilns. The amendments established NOx emission rate limits for long wet kilns, long dry kilns, and preheater and precalciner kilns that are lower by 35 percent to 63 percent from the previous limit of 6 pounds of NOx per ton of

clinker that applied to all kilns. The amendments were effective on April 15, 2011.

Stationary Source Regulations

Pennsylvania regulation 25 Pa. Code Chapter 130, Subchapter D for Adhesives, Sealers, Primers, and Solvents was approved into the Pennsylvania SIP on September 26, 2012 (77 FR 59090). The regulation established VOC content limits for various categories of adhesives, sealants, primers, and solvent, and became applicable on January 1, 2012.

Amendments to Pennsylvania regulation 25 Pa. Code Chapter 130, Subchapter B for Consumer Products, established, effective January 1, 2009, new or more stringent VOC standards for consumer products. The amendments were approved into the Pennsylvania SIP on October 18, 2010 (75 FR 63717).

Pennsylvania's Clean Vehicle Program

The Pennsylvania Clean Vehicles Program (formerly, New Motor Vehicle Control Program) incorporates by reference the California Low Emission Vehicle program (CA LEVII), although it allowed automakers to comply with the NLEV program as an alternative to this program until Model Year (MY) 2006. The Clean Vehicles Program, codified in 25 Pa. Code Chapter 126, Subchapter D, was modified to require CA LEVII to apply to MY 2008 and beyond, and was approved into the Pennsylvania SIP on January 24, 2012 (77 FR 3386). The Clean Vehicles Program incorporates by reference the emission control standards of CA LEVII, which, among other requirements, reduces emissions of NOx by requiring that passenger car emission standards and fleet average emission standards also apply to light duty vehicles. Model year 2008 and

newer passenger cars and light duty trucks are required to be certified for emissions by the California Air Resource Board (CARB), in order to be sold, leased, offered for sale or lease, imported, delivered, purchased, rented, acquired, received, titled or registered in Pennsylvania. In addition, manufacturers are required to demonstrate that the California fleet average standard is met based on the number of new light-duty vehicles delivered for sale in the Commonwealth. The Commonwealth's submittal for the January 24, 2012 rulemaking projected that, by 2025, the program will achieve approximately 334 tons more NOx reductions than Tier II for the counties in the Pennsylvania portion of the Philadelphia Area.

Two Pennsylvania regulations – the Diesel-Powered Motor Vehicle Idling Act (August 1, 2011, 76 FR 45705) and the Outdoor Wood-Fired Boiler regulation (September 20, 2011, 76 FR 58114) - were not included in the projection inventories, but may also assist in maintaining the standard. Also, the Tier 3 Motor Vehicle Emission and Fuel Standards (79 FR 23414, April 29, 2014) establishes more stringent vehicle emissions standards and will reduce the sulfur content of gasoline beginning in 2017. The fuel standard will achieve NOx reductions by further increasing the effectiveness of vehicle emission controls for both existing and new vehicles.

The State and Federal regulations and programs described above ensure the continuing decline of SO_2, NOx, $PM_{2.5}$, and VOC emissions in the Area during the maintenance period and beyond. A summary of the projected reductions from these measures from 2007 to 2025 is shown in Table 5. Table 5 incorporates the expected emissions from future construction at the Philadelphia International Airport (PHL-CEP), as well as potential emissions increases from Emission Reduction Credits (ERCs), which are also included in Tables 6a – 6e.

Table 5. Emission Reductions from 2007 to 2025 due to Control Measures

	NOx	$PM_{2.5}$	SO_2	VOC	NH_3
Point	2,279	-90	3,936	-690	-46
Area	250	674	5,818	3,039	-143
On-Road	43,966	1,070	249	18,071	363
Non-Road	8,493	624	2,817	6,666	-6
TOTALS	**54,988**	**2,278**	**12,820**	**27,085**	**167**

Where the emissions inventory method of showing maintenance is used, its purpose is to show that emissions during the maintenance period will not increase over the attainment year inventory. *See* 1992 Calcagni Memorandum, pages 9-10. For a demonstration of maintenance, emissions inventories are required to be projected to future dates to assess the influence of future growth and controls; however, the demonstration need not be based on modeling. *See Wall v. EPA, supra; Sierra Club v. EPA, supra. See also* 66 FR 53099-53100 and 68 FR 25430-32. PADEP uses projection inventories to show that the Pennsylvania portion of the Area will remain in attainment and developed projection inventories for an interim year of 2017 and a maintenance plan end year of 2025 to show that future emissions of NOx, SO_2, $PM_{2.5}$, VOC, and NH_3 will remain at or below the attainment year 2007 and 2008 attainment-level emissions levels, for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS, respectively, throughout the Pennsylvania portion of the Area through the year 2025.

EPA has reviewed the documentation provided by PADEP for developing annual 2017 and 2025 emissions inventories for the Pennsylvania portion of the Area. EPA has determined that the 2017 and 2025 projected emissions inventories provided by PADEP are approvable. For more information on EPA's analysis of the emissions inventories, *see* EPA's Inventory TSDs, dated December 23, 2014, available in the docket for this rulemaking action at www.regulations.gov.

Tables 6a through 6e provide a summary of the $PM_{2.5}$, NOx, SO_2, VOC, and NH_3 emissions inventories for the Pennsylvania portion of the Philadelphia Area for the 2007 attainment year, the 2017 interim year, and the 2025 maintenance plan end year for the 1997 annual $PM_{2.5}$ NAAQS. The future year inventories include expected emissions from future construction at the PHL-CEP, as well as potential emissions increases from ERCs.

Table 6a. Comparison of 2007, 2017, and 2025 Emissions of $PM_{2.5}$ for the Pennsylvania Portion of the Philadelphia Area (tpy)

$PM_{2.5}$							
				2007-2017		2007-2025	
Sector	**2007**	**2017**	**2025**	**Reduction**	**Percent Reduction**	**Reduction**	**Percent Reduction**
Point	2,444	1,788	1,808	656	26.8	636	26.0
Area	7,722	7,383	7,047	339	4.4	675	8.7
On-Road	2,386	1,679	1,316	707	29.6	1,070	44.8
Non-Road	1,562	1,019	837	543	34.8	725	46.4
PHL-CEP		83	102	-83		-102	
ERC		726	726	-726		-726	
Total	14,114	12,678	11,837	1,436	10.2	2,277	16.1

Table 6b. Comparison of 2007, 2017, and 2025 Emissions of NOx for the Pennsylvania Portion of the Philadelphia Area (tpy)

NOx							
				2007-2017		2007-2025	
Sector	**2007**	**2017**	**2025**	**Reduction**	**Percent Reduction**	**Reduction**	**Percent Reduction**
Point	20,744	11,366	11,316	9,378	45.2	9,428	45.4
Area	12,925	12,461	12,675	464	3.4	250	1.9
On-Road	68,327	37,922	25,361	31,405	45.3	43,966	63.4
Non-Road	20,393	10,332	7,990	10,061	49.3	12,403	60.2
PHL-CEP		3,337	3,910	-3,337		-3,910	
ERC		7,150	7,150	-7,150		-7,150	
Total	123,390	82,567	68,402	40,823	33.1	54,988	44.6

Table 6c. Comparison of 2007, 2017, and 2025 Emissions of SO_2 for the Pennsylvania Portion of the Philadelphia Area (tpy)

SO_2

Sector	2007	2017	2025	2007-2017		2007-2025	
				Reduction	Percent Reduction	Reduction	Percent Reduction
Point	19,633	5,870	5,858	13,763	70.1	13,775	70.2
Area	15,005	12,844	9,186	2,161	14.4	5,819	38.8
On-Road	508	248	259	260	51.2	249	49.0
Non-Road	3,375	305	123	3,070	91.0	3,252	96.4
PHL-CEP		355	435	-355		-435	
ERC		9,839	9,839	-9,839		-9,839	
Total	38,520	29,460	25,701	9,060	23.5	12,819	33.3

Table 6d. Comparison of 2007, 2017, and 2025 Emissions of VOC for the Pennsylvania Portion of the Philadelphia Area (tpy)

VOC							
Sector	2007	2017	2025	2007-2017		2007-2025	
				Reduction	Percent Reduction	Reduction	Percent Reduction
Point	6,281	6,438	6,508	-157	-2.5	-227	-3.6
Area	47,568	45,239	44,530	2,329	4.9	3,038	6.4
On-Road	29,293	16,349	11,222	12, 944	44.2	18,041	6.2
Non-Road	18,751	11,224	11,058	7,527	40.1	7,693	41.0
PHL-CEP		828	1,027	-828		-1,027	
ERC		463	463	-463		-463	
Total	101,894	80,540	74,808	21,354	20.9	27,086	26.6

Table 6e. Comparison of 2007, 2017, and 2025 Emissions of NH_3 for the Pennsylvania Portion of the Philadelphia Area (tpy)

NH_3							
Sector	2007	2017	2025	2007-2017		2007-2025	
				Reduction	Percent Reduction	Reduction	Percent Reduction
Point	743	814	789	-71	-9.5	-46	-6.2
Area	3,293	3,375	3,436	-82	-2.5	-143	-4.3
On-Road	1,270	903	908	387	30.5	362	28.5
Non-Road	23	26	29	-3	-13.0	-6	-26.1
PHL-CEP		0	0	0		0	
ERC		0	0	0		0	
Total	5,329	5,117	5,162	212	4.0	167	3.1

Table 7a provides a summary of $PM_{2.5}$, NOx, and SO_2 emissions for the entire Philadelphia Area for the 2007 attainment year, the 2017 interim year, and the 2025 maintenance plan end year for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS. The inventories show that, between 2007 and

2025, the Area is projected to reduce $PM_{2.5}$ emissions by 16.2 percent, NOx emissions by 41.2 percent, and SO_2 emissions by 46.8 percent.

Table 7a. Comparison of 2007, 2017, and 2025 $PM_{2.5}$, NOx, and SO_2 Emissions for the entire Philadelphia Area (tpy)

	$PM_{2.5}$			**NOx**			**SO_2**		
	2007	2017	2025	2007	2017	2025	2007	2017	2025
Pennsylvania portion	14,114	12,678	11,837	38,520	29,460	25,701	123,390	82,567	68,402
Delaware portion	3,193	2,844	2,893	15,228	6,995	6,958	23,084	14,475	13,797
New Jersey portion	5,159	4,549	4,102	4,965	1,579	1,880	41,718	26,057	17,780
Total	**22,466**	**20,071**	**18,832**	**58,713**	**38,034**	**34,539**	**188,192**	**123,099**	**100,069**

The redesignation requests for Delaware and New Jersey did not include VOC and NH_3 emission inventories. Therefore, in order to take VOC and NH_3 emissions for the Delaware and New Jersey portions of the Area into consideration, Pennsylvania used information from EPA's Regulatory Impact Analysis (RIA) for the 2012 $PM_{2.5}$ NAAQS. Table 7b provides a comparison of the 2007 and 2020 VOC and NH_3 emissions for the entire Philadelphia Area. The RIA only projected to 2020; however, Pennsylvania believes, and EPA agrees, that the downward trend for these precursors and attainment would continue into 2025, given that the area is attaining both the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS with the current level of emissions in the Area, and that additional reductions will be achieved from the Federal and State measures that will be implemented during the maintenance period. The projected emissions inventories show that the Philadelphia Area will continue to maintain the 1997 annual $PM_{2.5}$ standards during the maintenance period.

Table 7b. Comparison of 2007 and 2020 VOC and NH_3 Emissions for the entire Philadelphia Area (tpy)

	VOC		NH_3	
	2007	**2020**	**2007**	**2020**
Pennsylvania portion	95,255	75,861	5,229	4,903
Delaware portion	14,326	9,242	984	850
New Jersey portion	36,108	27,510	1,677	1,526
Total	**145,689**	**112,613**	**7,890**	**7,279**

3. Monitoring Network

Pennsylvania currently operates $PM_{2.5}$ monitors in each of the five counties that comprise the Pennsylvania portion of the Philadelphia Area. Pennsylvania's maintenance plan includes a commitment by PADEP and the Philadelphia County Health Department to continue to operate its EPA-approved monitoring network, as necessary to demonstrate ongoing compliance with the NAAQS. In its September 5, 2014 submittal, Pennsylvania stated that it will consult with EPA prior to making any necessary changes to the network and will continue to operate the monitoring network in accordance with the requirements of 40 CFR part 58.

4. Verification of Continued Attainment

To provide for tracking of the emission levels in the Area, PADEP will: (a) evaluate annually the vehicle miles travelled (VMT) data and the annual emissions reported from stationary sources to compare them with the assumptions used in the maintenance plan; and (b) evaluate the periodic emissions inventory for all $PM_{2.5}$ precursors prepared every three years in accordance with EPA's Air Emissions Reporting Requirements (AERR) to determine whether there is an exceedance of more than ten percent over the 2007 inventories. Also, as noted in the previous subsection, PADEP has stated that it will continue to operate its monitoring system in accordance with 40 CFR 58 and remains obligated to quality-assure monitoring data and enter all data into the AQS in accordance with federal requirements. PADEP has stated that it will use

this data in considering whether additional control measures are needed to assure continuing attainment in the Area.

5. Contingency Measures

The contingency plan provisions are designed to promptly correct a violation of the 1997 annual and/or the 2006 24-hour $PM_{2.5}$ NAAQS that occurs in the Pennsylvania portion of the Area after redesignation. Section 175A of the CAA requires that a maintenance plan include such contingency measures as EPA deems necessary to ensure that a state will promptly correct a violation of the NAAQS that occurs after redesignation. The maintenance plan should identify the events that would "trigger" the adoption and implementation of a contingency measure(s), the contingency measure(s) that would be adopted and implemented, and the schedule indicating the time frame by which the state would adopt and implement the measure(s).

Pennsylvania's maintenance plan describes the procedures for the adoption and implementation of contingency measures to reduce emissions should a violation occur. Pennsylvania's contingency measures include a first level response and a second level response. A first level response is triggered if the annual mean $PM_{2.5}$ concentration exceeds 15.5 $\mu g/m^3$ in a single calendar year within the Area, if the 98th percentile 24-hour $PM_{2.5}$ concentration exceeds 35.0 $\mu g/m^3$ in a single calendar year within the Area, or if the periodic emissions inventory for the Area exceed the attainment year inventory (2007) by more than ten percent. The first level response will consist of a study to determine if the emissions trends show increasing concentrations of $PM_{2.5}$, and whether this trend is likely to continue. If it is determined through the study that action is necessary to reverse a trend of emissions increases, Pennsylvania will, as

expeditiously as possible, implement necessary and appropriate control measures to reverse the trend.

A second level response will be prompted if the two-year average of the annual mean concentration exceeds 15.0 μg/m^3 or if the two-year average of 98th percentile 24-hour $PM_{2.5}$ concentration exceeds 35.0 μg/m^3 within the Area. This would trigger an evaluation of the conditions causing the exceedance, whether additional emission control measures should be implemented to prevent a violation of the standard, and analysis of potential measures that could be implemented to prevent a violation. Pennsylvania would then begin its adoption process to implement the measures as expeditiously as practicable. If a violation of the $PM_{2.5}$ NAAQS occurs, PADEP will propose and adopt necessary additional control measures in accordance with the implementation schedule in the maintenance plan.

Pennsylvania's candidate contingency measures include the following: (1) a regulation based on the Ozone Transport Commission (OTC) Model Rule to update requirements for consumer products; (2) a regulation based on the Control Techniques Guidelines (CTG) for industrial cleaning solvents; (3) voluntary diesel projects such as diesel retrofit for public or private local onroad or offroad fleets, idling reduction technology for Class 2 yard locomotives, and idling reduction technologies or strategies for truck stops, warehouses, and other freight-handling facilities; (4) promotion of accelerated turnover of lawn and garden equipment, focusing on commercial equipment; and (5) promotion of alternative fuels for fleets, home heating and agricultural use. Pennsylvania's rulemaking process and schedule for adoption and implementation of any necessary contingency measure is shown in the SIP submittals as being

18 months from PADEP's approval to initiate rulemaking. For all of the reasons discussed in this section, EPA is proposing to approve Pennsylvania's 1997 annual and 2006 24-hour $PM_{2.5}$ maintenance plan for the Pennsylvania portion of the Philadelphia Area as meeting the requirements of section 175A of the CAA.

C. Motor Vehicle Emissions Budgets

Section 176(c) of the CAA requires Federal actions in nonattainment and maintenance areas to "conform to" the goals of SIPs. This means that such actions will not cause or contribute to violations of a NAAQS, worsen the severity of an existing violation, or delay timely attainment of any NAAQS or any interim milestone. Actions involving Federal Highway Administration (FHWA) or Federal Transit Administration (FTA) funding or approval are subject to the transportation conformity rule (40 CFR Part 93, subpart A). Under this rule, metropolitan planning organizations (MPOs) in nonattainment and maintenance areas coordinate with state air quality and transportation agencies, EPA, and the FHWA and FTA to demonstrate that their long range transportation plans and transportation improvement programs (TIP) conform to applicable SIPs. This is typically determined by showing that estimated emissions from existing and planned highway and transit systems are less than or equal to the MVEBs contained in the SIP. On September 5, 2014, Pennsylvania submitted SIP revisions that contain the 2017 and 2025 $PM_{2.5}$ and NOx onroad mobile source budgets for Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties. Pennsylvania did not provide emission budgets for SO_2, VOC, and NH_3 because it concluded, consistent with the presumptions regarding these precursors in the Transportation Conformity Rule at 40 CFR 93.102(b)(2)(v), which predated and were not disturbed by the litigation on the 1997 $PM_{2.5}$ Implementation Rule, that emissions of these

precursors from motor vehicles are not significant contributors to the Area's $PM_{2.5}$ air quality problem. EPA issued conformity regulations to implement the 1997 annual $PM_{2.5}$ NAAQS in July 2004 and May 2005 (69 FR 40004, July 1, 2004 and 70 FR 24280, May 6, 2005). That decision does not affect EPA's proposed approval of the MVEBs for the Area. The MVEBs are presented in Table 8.

Table 8. MVEBs for the Pennsylvania portion of the Philadelphia Area for the 1997 $PM_{2.5}$ and 2006 24-hour NAAQS, in tpy

Year	$PM_{2.5}$	NOx
2017	1,679	37,922
2025	1,316	25,361

EPA's substantive criteria for determining adequacy of MVEBs are set out in 40 CFR 93.118(e)(4). Additionally, to approve the MVEBs, EPA must complete a thorough review of the SIP, in this case the $PM_{2.5}$ maintenance plan, and conclude that with the projected level of motor vehicle and all other emissions, the SIPs will achieve its overall purpose, in this case providing for maintenance of the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. EPA's process for determining adequacy of a MVEB consists of three basic steps: (1) providing public notification of a SIP submission; (2) providing the public the opportunity to comment on the MVEB during a public comment period; and (3) EPA taking action on the MVEB.

In this proposed rulemaking action, EPA is initiating the process for determining whether or not the MVEBs are adequate for transportation conformity purposes. The publication of this rulemaking starts a 30-day public comment period on the adequacy of the submitted MVEBs. This comment period is concurrent with the comment period on this

proposed action and comments should be submitted to the docket for this rulemaking. EPA may choose to make its determination on the adequacy of the budgets either in the final rulemaking on this maintenance plan and redesignation request or by informing Pennsylvania of the determination in writing, publishing a notice in the Federal Register and posting a notice on EPA's adequacy web page (http://www.epa.gov/otaq/stateresources/transconf/adequacy.htm).[14]

EPA has reviewed the MVEBs and found that the submitted MVEBs are consistent with the maintenance plan and meet the criteria for adequacy and approval. Therefore, EPA is proposing to approve the 2017 and 2025 $PM_{2.5}$ and NOx MVEBs for Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties for transportation conformity purposes. Additional information pertaining to the review of the MVEBs can be found in the TSD dated December 17, 2014, available on line at www.regulations.gov, Docket ID No. EPA-R03-OAR-2014-0868.

VI. Proposed Actions

EPA is proposing to approve Pennsylvania's request to redesignate the Pennsylvania portion of the Philadelphia Area from nonattainment to attainment for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS. EPA has evaluated Pennsylvania's redesignation request and determined that upon approval of the 2007 comprehensive emissions inventory for the 2006 24-hour $PM_{2.5}$ NAAQS proposed as part of this rulemaking action, it would meet the redesignation criteria set forth in section 107(d)(3)(E) of the CAA for both standards. EPA believes that the monitoring

[14] For additional information on the adequacy process, please refer to 40 CFR 93.118(f) and the discussion of the adequacy process in the preamble to the 2004 final transportation conformity rule. *See* 69 FR 40039-40043.

data demonstrate that the Philadelphia Area is attaining and will continue to attain the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS. EPA is also proposing to approve the associated maintenance plan for the Pennsylvania portion of the Area as a revision to the Pennsylvania SIP for the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS because it meets the requirements of CAA section 175A for both standards. For transportation conformity purposes, EPA is also proposing to approve MVEBs for both the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS. Final approval of the redesignation requests would change the official designations of the Pennsylvania portion of the Philadelphia Area for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS, respectively, found at 40 CFR part 81, from nonattainment to attainment, and would incorporate into the Pennsylvania SIP the associated maintenance plan ensuring continued attainment of the 1997 annual and 2006 24-hour $PM_{2.5}$ NAAQS in the Pennsylvania portion of the Area for the next 10 years, until 2025. EPA is soliciting public comments on the issues discussed in this document. These comments will be considered before taking final action.

VII. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely proposes to approve state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);

- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this rule proposing to approve Pennsylvania's redesignation request, maintenance plan, 2007 comprehensive emissions inventory for the 2006 24-hour $PM_{2.5}$ NAAQS, and MVEBs for transportation conformity purposes for the Pennsylvania portion of the Philadelphia Area for the 1997 annual and the 2006 24-hour $PM_{2.5}$ NAAQS, does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects

40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Nitrogen oxides, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds

40 CFR Part 81

Air pollution control, National parks, Wilderness areas

Authority: 42 U.S.C. 7401 et seq.

Dated: February 2, 2015.

William C. Early,
Acting Regional Administrator,
Region III.

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