6560-50-P

#### ENVIRONMENTAL PROTECTION AGENCY

#### 40 CFR Parts 52 and 81

[EPA-R03-OAR-2015-0029; FRL-9928-00-Region 3]

Approval and Promulgation of Air Quality Implementation Plans; Pennsylvania; Redesignation Request and Associated Maintenance Plan for the Pittsburgh-Beaver Valley 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 December 22, 2014 request to redesignate to attainment the Pittsburgh-Beaver Valley nonattainment area (Pittsburgh Area or Area) for the 1997 annual and 2006 24-hour fine particulate matter (PM<sub>2.5</sub>) National Ambient Air Quality Standards (NAAQS or standards). EPA is also proposing to determine that the Area continues to attain the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. In addition, EPA is proposing to approve as a revision to the Pennsylvania State Implementation Plan (SIP) the associated maintenance plan that was submitted with the redesignation request, to show maintenance of the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS through 2025 for the Area. EPA is also proposing to approve as revisions to the Pennsylvania SIP the 2007 emissions inventories for the 1997 annual PM<sub>2.5</sub> NAAQS and the 2011 emissions inventories for the 2006 24-hour PM<sub>2.5</sub> NAAQS that were included in the maintenance plan. The maintenance plan also included the 2017 and 2025 PM<sub>2.5</sub> and nitrogen oxides (NOx) motor vehicle emissions budgets (MVEBs) for the Area for both NAAQS which EPA is proposing to approve for conformity purposes.

This rulemaking action to propose approval of the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS redesignation request and associated maintenance plan for the 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 NAAQS.

**DATES:** Written comments must be received on or before [insert date 30 days after date of publication in the Federal Register].

**ADDRESSES:** Submit your comments, identified by Docket ID Number EPA-R03-OAR-2015-0029 by one of the following methods:

- A. <u>www.regulations.gov</u>. Follow the on-line instructions for submitting comments.
- B. E-mail: fernandez.cristina@epa.gov.
- C. Mail: EPA-R03-OAR-2015-0029, Cristina Fernandez, 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-2015-0029. EPA's policy is that all comments received will be included in the public docket without change, and may be made available online at <a href="www.regulations.gov">www.regulations.gov</a>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other

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Docket: All documents in the electronic docket are listed in the <a href="www.regulations.gov">www.regulations.gov</a> 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 <a href="www.regulations.gov">www.regulations.gov</a> 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**: Rose Quinto, (215) 814-2182 or by e-mail at quinto.rose@epa.gov.

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### I. Background

The first air quality standards for  $PM_{2.5}$  were established on July 18, 1997 (62 FR 38652). 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 98<sup>th</sup> percentile of 24-hour concentrations.

On January 5, 2005 (70 FR 944), EPA published air quality area designations for the 1997 PM<sub>2.5</sub> NAAQS. In that rulemaking action, EPA designated the Pittsburgh-Beaver Valley Area as nonattainment for the 1997 annual PM<sub>2.5</sub> NAAQS. *Id.* at 1000. The Pittsburgh-Beaver Valley Area is comprised of Beaver, Butler, Washington, Westmoreland Counties and portions of Allegheny, Armstrong, Green and Lawrence Counties. *See* 40 CFR 81.339.

On October 17, 2006 (71 FR 61144), EPA retained the annual average standard at 15 µg/m³, but revised the 24-hour standard to 35 µg/m³, based again on the three-year average of the 98<sup>th</sup> percentile of 24-hour concentrations (the 2006 24-hour PM<sub>2.5</sub> NAAQS). On November 13, 2009 (74 FR 58688), EPA published designations for the 2006 24-hour PM<sub>2.5</sub> NAAQS, which became effective on December 14, 2009. In that rulemaking action, EPA designated the Pittsburgh-Beaver Valley Area as nonattainment for the 2006 24-hour PM<sub>2.5</sub> NAAQS. *See* 40 CFR 81.339.

On October 12, 2012 (77 FR 62147) and May 2, 2014 (79 FR 25014), EPA made determinations that the Pittsburgh Area had attained the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS, respectively. Pursuant to 40 CFR 51.1004(c) and based on these determinations, the requirements for the 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<sub>2.5</sub> 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. On October 12, 2012 (77 FR 62147), EPA also determined in accordance with section 179(c) of the CAA, that the Pittsburgh Area attained the 1997 annual PM<sub>2.5</sub> NAAQS by its applicable attainment date of April 5, 2010.

On December 22, 2014, the Commonwealth of Pennsylvania, through the Pennsylvania Department of Environmental Protection (PADEP), formally submitted a request to redesignate the Pittsburg-Beaver Valley Area from nonattainment to attainment for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. Concurrently, PADEP submitted a combined maintenance plan for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS 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<sub>2.5</sub> and NOx MVEBs for the Area for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. The maintenance plan also includes the 2007 comprehensive emissions inventories for the 1997 annual PM<sub>2.5</sub> NAAQS and the 2011 comprehensive emissions inventories for the 2006 24-hour PM<sub>2.5</sub> NAAQS for PM<sub>2.5</sub>, NOx, sulfur dioxide (SO<sub>2</sub>), volatile organic compounds (VOCs), and ammonia (NH<sub>3</sub>).

In this proposed rulemaking action, EPA 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<sub>2.5</sub> NAAQS.

## 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 of the CAA. Each of these requirements are discussed in Section V. of this proposed rulemaking action.

EPA provided guidance on redesignations in the "SIPs; General Preamble for the Implementation of Title I of the CAA 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 referred to as the 1992 Calcagni Memorandum); (2) "SIP Actions Submitted in Response to 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<sub>2.5</sub> 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 an ambient air quality monitoring network in accordance with 40 CFR part

58; (4) verification of continued attainment; and (5) a contingency plan to prevent or correct future violations of the NAAQS.

Under the CAA, states are required to submit, at various times, control strategy SIP revisions for nonattainment areas and maintenance plans for areas seeking redesignation to attainment for a given NAAQS. These emission control strategy SIP revisions (e.g., RFP and attainment demonstration SIP revisions) and maintenance plans also create MVEBs based on onroad mobile source emissions for the relevant criteria pollutants and/or their precursors, where appropriate, to address pollution from onroad transportation sources. The MVEBs are the portions of the total allowable emissions that are allocated to onroad vehicle use that, together with emissions from all other sources in the area, will provide attainment, RFP, or maintenance, as applicable. The budget serves as a ceiling on emissions from an area's planned transportation system. Under 40 CFR part 93, a MVEB for an area seeking a redesignation to attainment is established for the last year of the maintenance plan.

The maintenance plan for the Pittsburgh Area, comprised of Beaver, Butler, Washington, Westmoreland Counties and portions of Allegheny, Armstrong, Green and Lawrence Counties in Pennsylvania, includes the 2017 and 2025 PM<sub>2.5</sub> and NOx MVEBs for transportation conformity purposes. The transportation conformity determination for the Area is further discussed in Section V.C. of this proposed rulemaking action and in a technical support document (TSD), "Adequacy Findings for the Motor Vehicle Emissions Budgets (MVEBs) in the 1997 Annual Fine Particulate Matter (PM<sub>2.5</sub>)

National Ambient Air Quality Standard (NAAQS) and the 2006 24-Hour PM<sub>2.5</sub> NAAQS Maintenance Plan for the Pittsburgh-Beaver Valley, Pennsylvania (PA) Nonattainment Area" (Adequacy Findings

TSD), dated April 23, 2015, available on line at <a href="www.regulations.gov">www.regulations.gov</a>, Docket ID No. EPA-R03-OAR-2015-0029.

### III. Summary of Proposed Actions

EPA is proposing to take several rulemaking actions related to the redesignation of the Pittsburgh Area to attainment for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. EPA is proposing to find that the Pittsburgh Area meets the requirements for redesignation of the 1997 annual and 2006 24-hour PM<sub>2.5</sub> 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 Pittsburgh-Beaver Valley Area from nonattainment to attainment for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. EPA is also proposing to approve the associated maintenance plan for the Pittsburgh Area as a revision to the Pennsylvania SIP for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS, including the 2017 and 2025 PM<sub>2.5</sub> and NOx MVEBs for the Area for transportation conformity purposes. Approval of the maintenance plan is one of the CAA criteria for redesignation 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<sub>2.5</sub> NAAQS in the Area for at least 10 years after redesignation.

EPA previously determined that the Pittsburgh Area attained both the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS (*see* 77 FR 62147 (October 12, 2012) and 79 FR 25014 (May 2, 2014)), and EPA is proposing to find that the Area continues to attain both NAAQS. In order to meet the requirements of section 172(c)(3) of the CAA, EPA is also proposing to approve the 2007 comprehensive emissions inventories for the 1997 annual PM<sub>2.5</sub> NAAQS and the 2011 comprehensive

emissions inventories for the 2006 24-hour PM<sub>2.5</sub> NAAQS submitted with Pennsylvania's maintenance plan that includes an inventory of PM<sub>2.5</sub>, SO<sub>2</sub>, NOx, VOC, and NH<sub>3</sub> for the Area as a revision to the Pennsylvania SIP. EPA's analysis of the proposed actions is provided in Section V. of this proposed rulemaking.

## IV. Effects of Recent Court Decisions on Proposed Actions

### A. Effect of the 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. CSAPR requires substantial reductions of SO<sub>2</sub> 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

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<sup>&</sup>lt;sup>1</sup> CAIR addressed the 1997 annual PM<sub>2.5</sub> 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<sub>2.5</sub>

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 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

NAAQS as well as the ozone and PM<sub>2.5</sub> NAAQS addressed by CAIR.

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 Pittsburgh Area in 2012 (October 12, 2012, 77 FR 62147) 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 Pittsburgh Area would have design values below the 1997 annual and the 2006 24-hour PM<sub>2.5</sub> 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-57, B-58, B-85, B-86 and B-87), which is available in the docket for this proposed rulemaking action. In addition, the 2011-2013 quality-assured, quality-controlled, and certified monitoring data for the Pittsburgh Area confirms that the PM<sub>2.5</sub> design values for the Area remained well below the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS in 2013.

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 December 22, 2014 request for resedignation. Therefore, the Area's attainment of the 1997 annual or the 2006 24-hour PM<sub>2.5</sub> 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 Pittsburgh Area.

## B. Effect of the D.C. Circuit Court Decision Regarding PM<sub>2.5</sub> Implementation under Subpart4 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<sub>2.5</sub>" final rule (73 FR 28321, May 16, 2008) (collectively, 1997 PM<sub>2.5</sub> 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<sub>2.5</sub> 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<sub>2.5</sub> 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<sub>2.5</sub> NAAQS" (the PM<sub>2.5</sub> Subpart 4 Classification and Deadline Rule), which identifies the classification under subpart 4 as "moderate" for areas currently designated nonattainment for the 1997 annual and/or 2006 24-hour PM<sub>2.5</sub> 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<sub>2.5</sub> and/or 2006 PM<sub>2.5</sub> 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 Pittsburgh Area on December 22, 2014, any additional attainment-related SIP elements that may be needed for the Area to meet the applicable requirements of subpart 4 were not due at the time Pennsylvania submitted its request to redesignate 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<sub>2.5</sub> Subpart 4 Classification and Deadline Rule on the redesignation request 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<sub>2.5</sub> 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<sub>2.5</sub> 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 also takes into account the effect of the D.C. Circuit Court's ruling and the June 2, 2014 PM<sub>2.5</sub> Subpart 4 Classification and Deadline Rule on the maintenance plans of the Area, which EPA views as approvable even 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 1997 annual PM<sub>2.5</sub> NAAQS under subpart 4 of part D of the CAA, in addition to subpart 1. For the purposes of evaluating Pennsylvania's December 22, 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 area. 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

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<sup>&</sup>lt;sup>2</sup> 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. Section 175A(c) of the CAA.

this case, at the time that Pennsylvania submitted its redesignation request for the Pittsburgh Area for the 1997 annual and the 2006 24-hour PM<sub>2.5</sub> NAAQS, the requirements under subpart 4 were not due.<sup>3</sup>

EPA's view that, for purposes of evaluating the redesignation 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 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.

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<sup>&</sup>lt;sup>3</sup> EPA found Pennsylvania's December 22, 2014 submittal redesignation of the Area complete on January 22, 2015. EPA's complete determination is available in the docket for this rulemaking.

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<sub>2.5</sub> 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<sub>2.5</sub> NAAQS on December 22, 2014 for the Pittsburgh 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-complete and pending redesignation request for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> 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 December 22, 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 request 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),<sup>4</sup> 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 December 22, 2014 redesignation request for an area that EPA previously determined was attaining the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS and that met all 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<sub>2.5</sub> Subpart 4 Classification and Deadline Rule, requires that, in the context of pending redesignation requests for the 1997 annual and the 2006 24-hour PM<sub>2.5</sub> NAAQS, which were submitted prior to December 31, 2014, subpart 4 requirements must be considered as being due and in

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<sup>&</sup>lt;sup>4</sup> 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

effect, EPA proposes to determine that the Area still qualifies for redesignation to attainment for the 1997 annual and the 2006 24-hour PM<sub>2.5</sub> 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<sub>2.5</sub> 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<sub>10</sub>)<sup>5</sup> 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 PM<sub>2.5</sub> 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<sub>10</sub> 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.

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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<sub>2.5</sub> Subpart 4 Classification and Deadline Rule, EPA is considering the areas to be "moderate" PM<sub>2.5</sub> 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 to be 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 1.6 In any event, in the context of redesignation, EPA has long relied on the interpretation that a fully approved

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<sup>&</sup>lt;sup>5</sup> PM<sub>10</sub> refers to particulates nominally 10 micrometers in diameter or smaller.

<sup>&</sup>lt;sup>6</sup> 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.

<sup>&</sup>lt;sup>7</sup> EPA refers here to attainment demonstration, RFP, RACM, milestone requirements, and contingency measures.

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, when EPA evaluates a redesignation request under either subpart 1 or 4, any area that is attaining the PM<sub>2.5</sub> 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 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

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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<sub>2.5</sub> Subpart 4 Classification and Deadline Rule, to mean that attainment-related requirements specific to subpart 4 were either due prior to Pennsylvania's December 22, 2014 redesignation request and must now be imposed retroactively, 8 those requirements do not apply to areas that are attaining the 1997 annual and the 2006 24-hour PM<sub>2.5</sub> NAAQS for the purpose of evaluating pending requests 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 of EPA's authority to interpret "applicable requirements" in the redesignation context. *See Sierra Club v. EPA*, 375 F.3d 537 (7<sup>th</sup> 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 the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. EPA's prior "Clean Data Policy" rulemakings for the PM<sub>10</sub> NAAQS, also governed by the requirements of subpart 4, explain EPA's

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<sup>&</sup>lt;sup>8</sup> As explained earlier, EPA does 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.* 

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<sub>10</sub> 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 action, on October 12, 2012 (77 FR 62147) and May 2, 2014 (79 FR 25014), EPA made determinations that the Pittsburgh Area had attained the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS, respectively. Pursuant to 40 CFR 51.1004(c) and based on these determinations, the requirements for the Area to submit an attainment demonstration and associated RACM, RFP plan, contingency measures, and other planning SIPs related to the attainment of either the 1997 annual or 2006 24-hour PM<sub>2.5</sub> 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 2006 24-hour PM<sub>2.5</sub> 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<sub>2.5</sub> 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<sub>2.5</sub> precursors. While past implementation of subpart 4 for PM<sub>10</sub> has allowed for control of PM<sub>10</sub> 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<sub>10</sub> shall also apply to PM<sub>10</sub> precursors from those sources, except where EPA determines that major stationary sources of such precursors "do not contribute significantly to PM<sub>10</sub> levels which exceed the standard in the area."

EPA's 1997 PM<sub>2.5</sub> Implementation Rule, remanded by the D.C. Circuit Court, contained rebuttable presumptions concerning certain PM<sub>2.5</sub> 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<sub>3</sub>] as . . . PM<sub>2.5</sub> attainment plan precursor[s] and to evaluate sources of VOC [and NH<sub>3</sub>] 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<sub>3</sub> are not PM<sub>2.5</sub> 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<sub>3</sub> is a precursor to fine particulate matter, making it a precursor to both PM<sub>2.5</sub> and PM<sub>10</sub>. For a PM<sub>10</sub> 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 Pittsburgh Area for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> 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<sub>10</sub> 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<sub>2.5</sub> Implementation Rule provisions regarding NH<sub>3</sub> 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<sub>2.5</sub> 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<sub>2.5</sub> Implementation Rule's rebuttable presumptions regarding NH<sub>3</sub> and VOC as PM<sub>2.5</sub> 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 Pittsburgh Area, EPA believes that doing so is consistent with proposing redesignation of the Area for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. The Area has attained the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS without any specific additional controls of NH<sub>3</sub> and VOC emissions from any sources in 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<sub>10</sub> precursors. Under subpart 1 and EPA's prior implementation rule, all major stationary sources of PM<sub>2.5</sub> precursors were subject to regulation, with the exception of NH<sub>3</sub> and VOC. Thus, EPA must address here whether additional controls of NH<sub>3</sub> and VOC from major stationary sources are required under section 189(e) of subpart 4 in order to redesignate the Area for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. As explained subsequently, EPA does not believe that any additional controls of NH<sub>3</sub> and VOC are required in the context of this redesignation.

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<sup>&</sup>lt;sup>9</sup> 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.

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<sub>3</sub> and VOC as precursors. These proposed determinations are based on EPA's findings that: (1) the Pittsburgh Area contains no major stationary sources of NH<sub>3</sub>; and (2) existing major stationary sources of VOC are adequately controlled under other provisions of the CAA regulating the ozone NAAQS.<sup>10</sup> In the alternative, EPA proposes to determine that, under the express exception provisions of section 189(e), and in the context of the redesignation of the Area, which is attaining the 1997 annual and 2006 24-hour PM<sub>2.5</sub>

NAAQS, at present NH<sub>3</sub> and VOC precursors from major stationary sources do not contribute significantly to levels exceeding the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS in the Area. *See* 57 FR 13539-42.

EPA notes that its 1997 PM<sub>2.5</sub> Implementation Rule provisions in 40 CFR 51.1002 were not directed at evaluation of PM<sub>2.5</sub> 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<sub>2.5</sub> 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

<sup>&</sup>lt;sup>10</sup> The Area has reduced VOC emissions through the implementation of various control programs including VOC Reasonably Available Control Technology (RACT) regulations and various onroad and nonroad motor vehicle

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<sub>3</sub> and VOC for PM<sub>2.5</sub> 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<sub>10</sub> 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. 11 Courts have upheld this approach to the requirements of subpart 4 for PM<sub>10</sub>. 12 EPA believes that application of this approach to PM<sub>2.5</sub> precursors under subpart 4 is reasonable. Because the Area has already attained the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS with its current approach to regulation of PM<sub>2.5</sub> precursors, EPA believes that it is reasonable to conclude in the context of this redesignation that there is no need to revisit an 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

control programs.

<sup>&</sup>lt;sup>11</sup> See, e.g., "Approval and Promulgation of Implementation Plans for California – San Joaquin Valley PM<sub>10</sub> Nonattainment Area; Serious Area Plan for Nonattainment of the 24-Hour and Annual PM<sub>10</sub> Standards," (69 FR 30006, May 26, 2004) (approving a PM<sub>10</sub> attainment plan that impose controls on direct PM<sub>10</sub> and NOx emissions and did not impose controls on SO<sub>2</sub>, VOC, or NH<sub>3</sub> emissions).

would not affect EPA's approval here of Pennsylvania's request for redesignation of the Pittsburgh Area for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. In the context of a redesignation, Pennsylvania has shown that the Area has attained both standards. Moreover, Pennsylvania has shown, and EPA proposes to determine, that attainment of the 1997 annual and 2006 24-hour PM<sub>2.5</sub> 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 action. 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 2006 24-hour PM<sub>2.5</sub> NAAQS at this time.

In summary, even if, prior to submitting its December 22, 2014 redesignation request, or subsequent to such submission and prior to December 31, 2014, Pennsylvania was required to address precursors for the Area under subpart 4 rather than under subpart 1, as interpreted in EPA's remanded 1997 PM<sub>2.5</sub> Implementation Rule, EPA would still conclude that 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 Pittsburgh Area: (1) to redesignate the Pittsburgh Area to attainment for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS; (2) to approve into the Pennsylvania SIP the associated maintenance plan for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS; and (3) to approve the 2007 comprehensive emissions inventory for the 1997 annual PM<sub>2.5</sub>

<sup>&</sup>lt;sup>12</sup> See, e.g., Assoc. of Irritated Residents v. EPA et al., 423 F.3d 989 (9th Cir. 2005).

NAAQS and the 2011 comprehensive emissions inventories for the 2006 24-hour PM<sub>2.5</sub> NAAQS to satisfy section 172(c)(3) requirement, which is one of the CAA criteria for redesignation. EPA's proposed approval of the redesignation request and maintenance plan for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> 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 Area. In addition, EPA is proposing to approve the 2017 and 2025 PM<sub>2.5</sub> and NOx MVEBs included in the maintenance plan for the Pittsburgh Area for transportation conformity purposes. The following is a description of how Pennsylvania's December 22, 2014 submittal satisfies the requirements of the CAA including specifically section 107(d)(3)(E) for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS.

#### A. Redesignation Request

### 1. Attainment

On October 12, 2012 (77 FR 62147), EPA determined that the Pittsburgh Area attained the 1997 annual PM<sub>2.5</sub> NAAQS by its applicable attainment date of April 5, 2010, based upon quality-assured and certified ambient air quality monitoring data for 2007-2009. In a separate rulemaking action dated May 2, 2014 (79 FR 25014), EPA determined that the Pittsburgh Area attained the 2006 24-hour PM<sub>2.5</sub> NAAQS, based on quality-assured and certified ambient air quality monitoring data for 2010-2012 and 2011-2013. The basis and effect of these determinations of attainment for both the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS were discussed in the notices of the proposed (77 FR 34297 (June 11, 2012) and 78 FR 49403

(August 14, 2013), respectively) and final (77 FR 62147 and 79 FR 25014, respectively) rulemakings

which determined the Area attained the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS, respectively.

EPA has reviewed the ambient air quality PM<sub>2.5</sub> monitoring data in the Pittsburgh 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 2008-2010, 2009-2011, 2010-2012, and 2011-2013. This data, provided in Tables 1 and 2, shows that the Area continues to attain the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS.

Table 1. Design Values for the Pittsburgh Area for the 1997 Annual  $PM_{2.5}$  NAAQS ( $\mu g/m^3$ ) for 2008-2010, 2009-2011, 2010-2012, and 2011-2013

Monitor ID #	2008-2010	2009-2011	2010-2012	2011-2013
Avalon 420030002	16.3*	14.7*	13.4	11.4
South Fayette 420030067	11.1	11	10.5	9.6
North Braddock 420031301	13.3	12.7	12.5	11.7*
Washington 421250200	11.8	11.3	11.1	10.3
Charleroi 421250005	12.9	12.6	11.9	11
Florence 421255001	10.8	9	7.2	7.2
Harrison 2 420031008	13	12.4	11.7*	10.6
Beaver Falls 420070014	13.1	12.4	12	11.6
Greensburg 42129008	13.4	13.7	12.6	11.1
Lawrenceville 420030008	12.2	11.6	11.1	10.3
North Park 420030093	10.1	9.7	9.4	8.8

Table 2. Design Values for the Pittsburgh Area for the 2006 24-hour  $PM_{2.5}$  NAAQS ( $\mu g/m^3$ ) for 2008-2010, 2009-2011, 2010-2012, and 2011-2013

Monitor ID #	2008-2010	2009-2011	2010-2012	2011-2013
Avalon 420030002	38*	34*	29	25
South Fayette 420030067	26	27	26	24
North Braddock 420031301	35	34	33	29
Washington 421250200	26	27	25	23
Charleroi 421250005	28	28	26	25
Florence 421255001	25	20	17	16
Harrison 2 420031008	31*	30*	28	25
Beaver Falls 420070014	30	29	27	26
Greensburg 42129008	32	33*	29*	26*
Lawrenceville 420030008	28	27	26	23
North Park 420030093	25*	25	23	19

<sup>\*</sup> This data is shown in EPA's AQS as incomplete. Additional statistical analysis was done to ensure the Pittsburgh-Beaver Valley Area meets the completeness requirement of the Clean Data Determination.

EPA's review of the monitoring data from 2008 through 2013 supports EPA's previous determinations that the Area has attained the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS, and that the Area continues to attain both standards. In addition, as discussed subsequently, with respect to the maintenance plan, Pennsylvania commits to maintain an ambient air quality monitoring network in

<sup>\*</sup> This data is shown in EPA's AQS as incomplete. Additional statistical analysis was done to ensure the Pittsburgh-Beaver Valley Area meets the completeness requirement of the Clean Data Determination.

accordance with 40 CFR part 58. Thus, based upon an analysis of currently available data, EPA is proposing to determine that the Pittsburgh Area continues to attain the 1997 annual and 2006 24-hour PM<sub>2.5</sub> 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 Pittsburgh Area must be fully approved under section 110(k) and all

the requirements applicable to 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: (1) submittal of a SIP that has been adopted by the state after reasonable public notice and hearing; (2) provisions for establishment and operation of appropriate procedures needed to monitor ambient air quality; (3) implementation of a minor source permit program and provisions for the implementation of part C requirements (PSD); (4) Provisions for the implementation of part D requirements for NSR permit programs; (5) provisions for air pollution

modeling; and (6) 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 NOx SIP Call; amendments to the NO<sub>x</sub> SIP Call (64 FR 26298, May 14, 1999 and 65 FR 11222, March 2, 2000), 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 classification 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 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). For additional discussion on this issue, *see* the Cincinnati, Ohio redesignation (65 FR at 37890, June 19, 2000) and 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<sub>2.5</sub>. See 77 FR 58955 (September 25, 2012) (approving infrastructure SIP submittals for 1997 and 2006 PM<sub>2.5</sub> NAAQS). These requirements are, however, statewide requirements that are not linked to the PM<sub>2.5</sub> nonattainment status of the Area. Therefore, EPA believes that these SIP elements are not applicable requirements for purposes of review of the Commonwealth's PM<sub>2.5</sub> 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.

EPA's longstanding interpretation of the nonattainment planning requirements of section 172 is that once an area is attaining the NAAQS, those requirements are not "applicable" for purposes of section 107(d)(3)(E)(ii) and therefore need not be approved into the SIP before EPA can redesignate the area. In the 1992 General Preamble for Implementation of Title I, EPA set forth its interpretation of applicable requirements for purposes of evaluating redesignation requests when an area is attaining a standard. See 57 FR 13498, 13564 (April 16, 1992). EPA noted that the requirements for RFP and other measures designed to provide for attainment do not apply in evaluating redesignation requests because those nonattainment planning requirements "have no meaning" for an area that has already attained the standard. Id. This interpretation was also set forth in the 1992 Calcagni Memorandum. EPA's understanding of section 172 also forms the basis of its Clean Data Policy, which was articulated with regard to PM<sub>2.5</sub> in 40 CFR 51.1004(c), and suspends a state's obligation to submit most of the attainment planning requirements that would otherwise apply, including an attainment demonstration and planning SIPs to provide for RFP, RACM, and contingency measures under section 172(c)(9). 13 Courts have upheld EPA's interpretation of section 172(c)(1)'s "reasonably available" control measures and control technology as meaning only those controls that advance attainment, which precludes the need to require additional measures where an area is already attaining. NRDC v. EPA, 571 F.3d 1245, 1252 (D.C. Cir. 2009); Sierra Club v. EPA, 294 F.3d 155, 162 (D.C. Cir. 2002); Sierra Club v. EPA, 314 F.3d 735, 744 (5th Cir. 2002).

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<sup>&</sup>lt;sup>13</sup> This regulation was promulgated as part of the 1997 PM<sub>2.5</sub> NAAQS implementation rule that was subsequently challenged and remanded in *NRDC v. EPA*, 706 F.3d 428 (D.C. Cir. 2013), as discussed in Section IV.B of this

Therefore, because attainment has been reached for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS in the Pittsburgh Area (see October 12, 2012 (77 FR 62147) and May 2, 2014 (79 FR 25014)), no additional measures are needed to provide for attainment, and section 172(c)(1) requirements for an attainment demonstration and RACM are no longer considered to be applicable for purposes of redesignation as long as the Area continues to attain each standard until redesignation. Section 172(c)(2)'s requirement that nonattainment plans contain provisions promoting reasonable further progress toward attainment is also not relevant for purposes of redesignation because EPA has determined that the Pittsburgh Area has monitored attainment of the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. In addition, because the Pittsburgh Area has attained the 1997 annual and 2006 24hour PM<sub>2.5</sub> NAAQS and is no longer subject to a RFP requirement, the requirement to submit the section 172(c)(9) contingency measures is not applicable for purposes of redesignation. Section 172(c)(6) requires the SIP to contain control measures necessary to provide for attainment of the NAAQS. Because attainment has been reached, no additional measures are needed to provide for attainment.

The requirement under section 172(c)(3) of the CAA was not suspended by EPA's clean data determination for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS and is the only remaining requirement under section 172 to be considered for purposes of redesignation of the Area. Section 172(c)(3) of the CAA requires submission and approval of a comprehensive, accurate, and current inventory of actual emissions. For purposes of the PM<sub>2.5</sub> NAAQS, this emissions inventory

rulemaking. However, the Clean Data Policy portion of the implementation rule was not at issue in that case.

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  $NH_3$ .

To satisfy the 172(c)(3) requirement for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS, Pennsylvania's December 22, 2014 redesignation request and maintenance plan contains 2007 and 2011 comprehensive emissions inventories. PADEP submitted the 2007 and 2011 emissions inventories to fulfill its obligation to submit a comprehensive inventory under section 172(c)(3) of the CAA, because that inventory has gone through extensive quality assurance. The 2007 and 2011 emissions inventories were the most current accurate and comprehensive emissions inventories of PM<sub>2.5</sub>, NO<sub>X</sub>, SO<sub>2</sub>, VOC, and NH<sub>3</sub> for the Area when the Area attained the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. Thus, as part of this rulemaking action, EPA is proposing to approve Pennsylvania's 2007 comprehensive emissions inventory for the 1997 annual PM<sub>2.5</sub> NAAQS and the 2011 comprehensive emissions inventories for the 2006 24-hour PM<sub>2.5</sub> NAAQS, as satisfying the requirement of section 172(c)(3) of the CAA. Final approval of the 2007 and 2011 comprehensive emissions inventories will satisfy the emissions inventory requirement under section 172(c)(3) of the CAA. The 2007 and 2011 comprehensive emissions inventories address the general source categories of point sources, area sources, on-road mobile sources, and non-road mobile sources. A summary of the 2007 and 2011 comprehensive emissions inventories are shown in Tables 3 and 4. For more information on EPA's analysis of the 2007 and 2011 emissions inventories, see the TSDs prepared by the EPA Region III Office of Air Monitoring and Analysis dated April 22, 2015, "Technical Support Document (TSD) for the Redesignation Request and Maintenance Plan for the Pittsburgh-Beaver Valley 1997 and 2006 PM<sub>2.5</sub> Nonattainment Area" (Inventory TSDs), available in the docket for this

Table 3. 2007 Emissions for the Pittsburgh-Beaver Valley Area, in tons per year (tpy)

Sector	PM <sub>2.5</sub>	NOx	$SO_2$	VOC	$NH_3$
Point	8,913	92,750	438,716	3,186	584
Area	6,392	7,946	12,817	28,991	2,474
Onroad	1,692	49,052	378	20,194	858
Nonroad	1,151	21,175	694	10,834	16
Total	18,148	170,923	452,605	63,205	3,932

Table 4. 2011 Emissions for the Pittsburgh-Beaver Valley Area, in tpy

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Sector	PM <sub>2.5</sub>	NOx	$SO_2$	VOC	$NH_3$
Point	7,287	80,746	122,541	3,333	322
Area	7,455	19,667	3,841	26,012	3,109
Onroad	967	29,184	149	14,813	624
Nonroad	667	7,110	20	7,832	10
Total	16,376	136,707	126,551	51,990	4,065

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 regulations at 25 Pa. Code Chapter 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 which incorporates by reference the Federal PSD program at 40 CFR 52.21). However, Pennsylvania's PSD program for PM<sub>2.5</sub> will become effective in the Pittsburgh 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.

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 Pittsburgh Area to attainment status, Pennsylvania submitted a SIP revision on December 22, 2014 to provide for maintenance of the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS in the Pittsburgh Area for at least 10 years after redesignation, throughout 2025. Pennsylvania is requesting that EPA approve the maintenance plan to meet the requirement of section 175A of the CAA for both NAAQS. Once approved, the maintenance plan for 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<sub>2.5</sub> NAAQS for 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 approved Pennsylvania's transportation conformity SIP requirements on April 29, 2009 (74 FR 19541).

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 (6<sup>th</sup> Cir. 2001) (upholding this interpretation) and 60 FR 62748 (December 7, 1995) (discussing Tampa, Florida).

Thus, for purposes of redesignating to attainment the Pittsburgh Area for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS, EPA proposes that upon final approval of the 2007 and 2011 comprehensive emissions inventories as proposed in this rulemaking action, Pennsylvania will meet all the applicable SIP requirements under part D of Title I of the CAA for purposes of redesignating the Area to attainment for both the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS.

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

Upon final approval of the 2007 and 2011 comprehensive emissions inventories as proposed in this rulemaking action, EPA will have fully approved all applicable requirements of Pennsylvania's SIP for

the Pittsburgh Area for purposes of redesignation to attainment for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> 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 2005, a year showing nonattainment for the 1997 annual and the 2006 24-hour PM<sub>2.5</sub> NAAQS in the Pittsburgh Area, and 2007, the year for which the Area monitored attainment for 1997 annual PM<sub>2.5</sub> NAAQS, and 2011, the year for which the Area monitored attainment for the 2006 24-hour PM<sub>2.5</sub> NAAQS.

A summary of the emissions reductions in tpy of PM<sub>2.5</sub>, NOx, SO<sub>2</sub>, VOC, and NH<sub>3</sub> from 2005 to 2007 in the Pittsburgh Area, submitted by PADEP, is provided in Table 5. For more information on EPA's analysis of the 2007 emissions inventories, *see* EPA's Inventory TSDs dated April 22, 2015, available in the docket for this rulemaking action at <a href="https://www.regulations.gov">www.regulations.gov</a>.

Table 5. Emission Reductions from 2005 to 2007 in the Pittsburgh-Beaver Valley Area

	Sector	2005	2007	Net Reduction 2005-2007	Percent Reduction 2005-2007
PM <sub>2.5</sub>	Point	27,817	8,913	18,904	67.9
	Area	7,916	6,392	1,524	19.3
	On-road	1,898	1,692	206	10.9
	Non-road	1,539	1,151	388	25.2

	Total	39,170	18,148	21,022	53.7
$NO_X$	Point	92,808	92,750	58	0.0
	Area	8,622	7,946	676	7.8
	On-road	58,268	49,052	9,216	15.8
	Non-road	31,519	21,175	10,344	32.8
	Total	191,217	170,923	20,294	10.6
$SO_2$	Point	470,511	438,716	31,795	6.8
	Area	9,905	12,817	-2,912	-29.4
	On-road	875	378	497	56.8
	Non-road	2,364	694	1,670	70.6
	Total	483,655	452,605	31,050	6.4
VOC	Point	5,553	3,186	2,367	42.6
	Area	36,683	28,991	7,692	20.9
	On-road	22,306	20,194	2,112	9.5
	Non-road	11,499	10,834	665	5.8
	Total	76,041	63,205	12,836	16.9
$NH_3$	Point	738	584	154	20.9
	Area	2,948	2,474	474	16.1
	On-road	934	858	76	8.1
	Non-road	14	16	-2	-14.3
	Total	4,634	3,932	702	15.1

A summary of the emissions reductions in tpy of PM<sub>2.5</sub>, NOx, SO<sub>2</sub>, VOC, and NH<sub>3</sub> from 2005 to 2011 in the Pittsburgh Area, submitted by PADEP, is provided in Table 6. For more information on EPA's analysis of the 2011 emissions inventories, see EPA's Inventory TSDs dated April 22, 2015, available in the docket for this rulemaking action at <a href="https://www.regulations.gov">www.regulations.gov</a>.

Table 6. Emission Reductions from 2005 to 2011 in the Pittsburgh-Beaver Valley Area

	Sector	2005	2011	Net Reduction 2005-2011	Percent Reduction 2005-2011
$PM_{2.5}$	Point	27,817	7,287	20,530	73.8
	Area	7,916	7,455	461	5.8
	On-road	1,898	967	931	49.1
	Non-road	1,539	667	872	56.6
	Total	39,170	16,376	22,794	58.2
$NO_X$	Point	92,808	80,746	12,062	12.9
	Area	8,622	19,667	-11,045	-128.1

	On-road	58,268	29,184	29,084	50.0
	Non-road	31,519	7,110	24,409	77.4
	Total	191,217	136,707	54,510	28.5
$SO_2$	Point	470,511	122,541	347,970	73.9
	Area	9,905	3,841	6,064	61.1
	On-road	875	149	762	82.9
	Non-road	2,364	20	2,344	99.1
	Total	483,655	126,551	357,104	73.8
VOC	Point	5,553	3,333	2,200	40.0
	Area	36,683	26,012	10,671	29.1
	On-road	22,306	14,813	7,493	33.6
	Non-road	11,499	7,832	3,667	31.9
	Total	76,041	51,990	24,051	31.6
NH <sub>3</sub>	Point	738	322	416	56.3
	Area	2,948	3,109	-161	-5.5
	On-road	934	624	310	33.2
	Non-road	14	10	4	28.6
	Total	4,634	4,065	569	12.3

The reduction in emissions and the corresponding improvement in air quality in the Pittsburgh Area from 2005 to 2007 for the 1997 annual  $PM_{2.5}$  NAAQs, and 2005 to 2011 for the 2006 24-hour  $PM_{2.5}$  NAAQs, 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<sub>2</sub>

 $PM_{2.5}$  concentrations in the Pittsburgh 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. <sup>14</sup>

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).

CAIR - As previously noted, CAIR (70 FR 25162, May 12, 2005) created regional cap-and-trade programs to reduce SO<sub>2</sub> and NO<sub>X</sub> emissions in 27 eastern states, including Pennsylvania. EPA approved the Commonwealth's CAIR regulation, codified in 25 Pa. Code Chapter 145, Subchapter D,

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 $<sup>^{14}</sup>$ 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<sub>2.5</sub> pollution, for which NOx is also a precursor emission.

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<sub>2</sub> 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<sub>2.5</sub> 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<sub>2.5</sub> 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 is 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<sub>2</sub>, 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 Pittsburgh 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 Pittsburgh 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.

Regulation of Cement Kilns and Large Stationary Internal Combustion Engines

On December 10, 2009 (74 FR 65446), EPA approved Pennsylvania regulation 25 Pa. Code Chapter

145, Subchapters B and C (relating to emissions of NOx from stationary internal combustion engines,

and emissions of NOx from cement manufacturing).

Consumer Products Regulation

Pennsylvania regulation 25 Pa. Code Chapter 130, Subchapter B (Consumer Products) established, effective January 1, 2005, VOC emission limits to numerous categories of consumer products, and applies statewide to any person who sells, supplies, offers for sale, or manufactures such consumer products on or after January 5, 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 improvements in air quality in the Pittsburgh 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 Pittsburgh Area.

### **B.** Maintenance Plan

On December 22, 2014, PADEP submitted a combined maintenance plan for the Pittsburgh Area for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> 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 Inventory

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 NAAQS is 2007, one of the years in the periods during which the Pittsburgh Area monitored attainment of the 1997 annual PM<sub>2.5</sub> NAAQS. PADEP determined that the appropriate attainment inventory year for the maintenance plan for the 2006 24-

hour  $PM_{2.5}$  NAAQS is 2011, one of the years in the periods during which the Pittsburgh Area monitored attainment of the 2006 24-hour  $PM_{2.5}$  NAAQS. The 2007 and 2011 inventories included in the maintenance plan contain primary  $PM_{2.5}$  emissions (including condensables),  $SO_2$ , NOx, VOC, and  $NH_3$ .

In its redesignation request and maintenance plan for the 1997 annual and 2006 24-hour PM<sub>2.5</sub>
NAAQS, PADEP described the methods used for developing its 2007 and 2011 comprehensive emissions inventories. EPA reviewed the procedures used to develop the inventories and found them to be reasonable. EPA has reviewed the documentation provided by PADEP and found the 2007 and 2011 emissions inventories submitted with the maintenance plan to be approvable. For more information on EPA's analysis of the 2007 and 2011emissions inventories, *see* EPA's Inventory TSDs, dated April 22, 2015, 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 have occurred and will continue to occur through 2025. In addition, the following State and Federal regulations and programs ensure the continuing decline of SO<sub>2</sub>, NOx, PM<sub>2.5</sub>, 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, 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<sub>2</sub> 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.

Consumer Products Regulation

Amendments to Pennsylvania regulation 25 Pa. Code Chapter 130, Subchapter B (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 National Low Emission Vehicle (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 285 tons more NOx reductions than Tier II for the counties in the Pittsburgh 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.

#### Natural Gas Activities

The emissions growth due to a new emissions source, development of natural gas resources from Marcellus Shale (and other deep formations), is included in the area source inventory. PADEP requires annual emission reporting under 25 Pa. Code Chapter 135 (relating to reporting of sources) of unconventional natural gas development companies. The initial annual source reporting for unconventional natural gas operations began in 2012 for emissions during the 2011 calendar year. Emissions were projected to 2017 and 2025 based on the most recent emissions inventory reports available (2013 for compressor engines and 2012 for all other sources). *See* Appendix B-3 of Pennsylvania's submittal for more details on the methodology used for estimating Marcellus Shale development activity and for the emission totals by pollutant. Starting January 2015, Federal regulations (40 CFR part 60, subpart OOOO) require wells to capture gas at the wellhead. EPA estimates that VOC emissions from hydraulically fractured well completions will decrease by 95 percent as a result of this regulation.

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 Pittsburgh Area during the maintenance period and beyond. A summary of the projected reductions from these measures from 2007 to 2025 is shown in Table 7, and from 2011 to 2025 is shown in Table 8. The future year inventories include potential emissions increases from natural gas activities.

Table 7. Emission Reductions from 2007 to 2025 due to Control Measures in tpy

	PM <sub>2.5</sub>	NOx	$SO_2$	VOC	$NH_3$
Point	54	-3,095	340,699	-293	-12
Area	672	-23	2,515	2,961	-136
On-Road	1,155	38,343	260	15,069	405
Non-Road	611	11,370	588	4,697	-3
Natural Gas Activities	-397	-8,716	-37	-8,502	0
TOTALS	2,095	37,879	343,995	13,932	254

Table 8. Emission Reductions from 2011 to 2025 due to Control Measures in tpy

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	PM <sub>2.5</sub>	NOx	$SO_2$	VOC	NH <sub>3</sub>
Point	-1,572	-15,099	24,494	-146	-274
Area	1,735	11,698	-6,461	-18	499
On-Road	430	18,475	31	9,688	171
Non-Road	127	-2,695	-86	1,695	0
Natural Gas Activities	-397	-8,716	-37	-8,502	0
TOTALS	323	3,663	17,941	2,717	387

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 Pittsburgh 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<sub>2</sub>, PM<sub>2.5</sub>, VOC, and NH<sub>3</sub> will remain at or below the attainment year 2007 for the 1997 annual and 2011 for the 2006 24-hour PM<sub>2.5</sub> NAAQS, respectively, throughout the Pittsburgh Area through the year 2025.

EPA has reviewed the documentation provided by PADEP for developing annual 2017 and 2025 emissions inventories for the Pittsburgh Area. *See* Appendix C-2 and C-3 of Pennsylvania's submittal. 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 April 22, 2015, available in the docket for this rulemaking action at <a href="https://www.regulations.gov">www.regulations.gov</a>.

Table 9 provides a summary of the PM<sub>2.5</sub>, NOx, SO<sub>2</sub>, VOC, and NH<sub>3</sub> emissions inventories in tpy, for the Pittsburgh Area for the 2007 attainment year for the 1997 annual PM<sub>2.5</sub> NAAQS and the 2011 attainment year for the 2006 24-hour PM<sub>2.5</sub> NAAQS, as compared to the projected inventories for the 2017 interim year, and the 2025 maintenance plan end year for the Pittsburgh Area.

Table 9. Comparison of 2007 and 2011 Attainment Years and 2017 and 2025 Projected  $PM_{2.5}$  Emissions in the Pittsburgh Area

Year	$PM_{2.5}$	NOx	$SO_2$	$NH_3$	VOC
2007 (attainment)	18,148	170,923	452,605	3,932	63,205
2011 (attainment)	16,376	136,707	126,551	4,065	51,990
2017 (interim)	15,932	132,236	100,867	3,625	49,860
2007-2017 (projected decrease)	2,216	38,687	351,738	307	13,345

2011-2017 (projected decrease)	444	4,471	25,644	440	2,130
2025 (maintenance)	16,053	133,044	108,610	3,678	49,273
2007-2025 (projected decrease)	2,095	37,879	343,995	254	13,932
2011-2025 (projected decrease)	323	3,663	17,941	387	2,717

As shown in Table 9, the projected levels of PM<sub>2.5</sub>, NOx, SO<sub>2</sub>, VOC, and NH<sub>3</sub> are under the 2007 and 2011 attainment year levels for each of these pollutants. Pennsylvania has adequately demonstrated that the Area will continue to maintain the 1997 annual and the 2006 24-hour PM<sub>2.5</sub> NAAQS.

### 3. Monitoring Network

Pennsylvania's maintenance plan includes a commitment to operate its EPA-approved monitoring network, as necessary to demonstrate ongoing compliance with the NAAQS. Pennsylvania currently operates a PM<sub>2.5</sub> monitor in the Pittsburgh Area. In its December 22, 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<sub>2.5</sub> 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 and 2011 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 part 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 any violation of the 1997 annual and/or the 2006 24-hour PM<sub>2.5</sub> NAAQS that occurs in the Pittsburgh 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 when the annual mean  $PM_{2.5}$  concentration exceeds 15.5  $\mu$ g/m³ in a single calendar year within the Area, when the  $98^{th}$  percentile 24-hour  $PM_{2.5}$  concentration exceeds 35.0  $\mu$ g/m³ in a single calendar year within the area, or when the periodic emissions inventory for the Area exceeds the attainment year inventory (2007 and 2011) 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<sub>2.5</sub>, 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  $15.0 \,\mu\text{g/m}^3$  or if the two-year average of the  $98^{th}$  percentile 24-hour  $PM_{2.5}$  concentration exceeds  $35.0 \,\mu\text{g/m}^3$  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<sub>2.5</sub> maintenance plan for the Pittsburgh 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 December 22, 2014, Pennsylvania submitted a SIP revision that contains the 2017 and 2025 PM<sub>2.5</sub> and NOx onroad mobile source budgets for Beaver, Butler, Washington, and Westmoreland Counties and portions of Allegheny, Armstrong, Green and Lawrence Counties. Pennsylvania did not provide emission budgets for SO<sub>2</sub>, VOC, and NH<sub>3</sub> 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<sub>2.5</sub> Implementation Rule, that emissions of these precursors from motor vehicles are not significant contributors to the Area's PM<sub>2.5</sub> air quality problem. EPA issued conformity regulations to implement the 1997 annual PM<sub>2.5</sub> NAAQS in July 2004 and May 2005 (69 FR 40004, July 1, 2004 and 70 FR 24280, May 6, 2005). The D.C. Circuit Court's January 2013 decision does not affect EPA's proposed approval of the MVEBs for the Area. The MVEBs are presented in Table 10.

Table 10. MVEBs for the Pittsburgh Area for the 1997 annual and 2006 24-hour  $PM_{2.5}$  NAAQS in tpy

Year	$PM_{2.5}$	NOx
2017	700	17,584
2025	537	10,709

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<sub>2.5</sub> 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<sub>2.5</sub> 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 also 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). 15

EPA has reviewed the MVEBs and finds that the submitted MVEBs are consistent with the maintenance plan and that the budgets meet the criteria for adequacy and approval. Therefore, EPA is proposing to approve the 2017 and 2025 PM<sub>2.5</sub> and NOx MVEBs for the Pittsburgh Area for transportation conformity purposes. Additional information pertaining to the review of the MVEBs can be found in the Adequacy Findings TSD dated April 23, 2015, available on line at <a href="www.regulations.gov">www.regulations.gov</a>, Docket ID No. EPA-R03-OAR-2014-0902.

## **VI. Proposed Actions**

EPA is proposing to approve Pennsylvania's request to redesignate the Pittsburgh Area from nonattainment to attainment for the 1997 annual and the 2006 24-hour PM<sub>2.5</sub> NAAQS. EPA has evaluated Pennsylvania's redesignation request and determined that upon approval of the 2007 and

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<sup>&</sup>lt;sup>15</sup> 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 at 40039-40043.

2011 comprehensive emissions inventories for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS, respectively, proposed as part of this rulemaking action, it would meet the redesignation criteria set forth in section 107(d)(3)(E) of the CAA. The monitoring data demonstrates that the Pittsburgh Area attained as determined by EPA in a prior rulemaking and for reasons discussed herein, that it will continue to attain both NAAQS. Final approval of this redesignation request would change the designation of the Pittsburgh Area from nonattainment to attainment for the 1997 annual and the 2006 24-hour PM<sub>2.5</sub> NAAQS. EPA is also proposing to approve the associated maintenance plan for the Pittsburgh Area as a revision to the Pennsylvania SIP for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS because it meets the requirements of section 175A of the CAA as described previously in this proposed rulemaking. In addition, EPA is proposing to approve the 2007 and 2011 comprehensive emissions inventories as meeting the requirement of section 172(c)(3) of the CAA for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS, respectively. Furthermore, EPA is proposing to approve the 2017 and 2025 PM<sub>2.5</sub> and NOx MVEBs for the Pittsburgh Area for transportation conformity purposes. 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 and 2011 comprehensive emissions inventories for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS, respectively, and MVEBs for transportation conformity purposes for the Pittsburgh Area for both 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: May 11, 2015. William C. Early, Acting

Regional Administrator,

Region III.

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