



**6560-50-P**

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Parts 52 and 81**

**[EPA-R04-OAR-2013-0084; FRL-9940-88-Region 4]**

**Air Plan Approval and Air Quality Designation; GA; Redesignation of the Atlanta, GA,**

**1997 Annual PM<sub>2.5</sub> Nonattainment Area to Attainment**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** On August 30, 2012, the Georgia Department of Natural Resources, through the Georgia Environmental Protection Division (GA EPD), submitted a request for the Environmental Protection Agency (EPA) to redesignate the Atlanta, Georgia, fine particulate matter (PM<sub>2.5</sub>) nonattainment area (hereafter referred to as the “Atlanta Area” or “Area”) to attainment for the 1997 Annual PM<sub>2.5</sub> national ambient air quality standards (NAAQS) and to approve a state implementation plan (SIP) revision containing a maintenance plan for the Atlanta Area. EPA is proposing to determine that the Atlanta Area is continuing to attain the 1997 Annual PM<sub>2.5</sub> NAAQS; to approve Georgia’s plan for maintaining the 1997 Annual PM<sub>2.5</sub> NAAQS in the Atlanta Area (maintenance plan), including the associated motor vehicle emission budgets (MVEBs) for nitrogen oxides (NO<sub>x</sub>) and PM<sub>2.5</sub> for the year 2024, into Georgia’s SIP; and to redesignate the Atlanta Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS. EPA is also notifying the public of the status of EPA’s adequacy determination for the Atlanta Area.

**DATES:** Comments must be received on or before [insert date 21 days after date of publication in the Federal Register].

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R04-OAR-2013-0084, by one of the following methods:

1. [www.regulations.gov](http://www.regulations.gov): Follow the on-line instructions for submitting comments.
2. E-mail: [R4-ARMS@epa.gov](mailto:R4-ARMS@epa.gov).
3. Fax: (404) 562-9019.
4. Mail: EPA-R04-OAR-2013-0084, Air Regulatory Management Section, Air Planning and Implementation Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960.
5. Hand Delivery or Courier: Ms. Lynorae Benjamin, Chief, Air Regulatory Management Section, Air Planning and Implementation Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. Such deliveries are only accepted during the Regional Office's normal hours of operation. The Regional Office's official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

*Instructions:* Direct your comments to Docket ID No. EPA-R04-OAR-2013-0084. EPA policy is that all comments received will be included in the public docket without change and may be made available online at [www.regulations.gov](http://www.regulations.gov), including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI)

or other information whose disclosure is restricted by statute. Do not submit through [www.regulations.gov](http://www.regulations.gov) or e-mail, information that you consider to be CBI or otherwise protected. The [www.regulations.gov](http://www.regulations.gov) website is an “anonymous access” system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [www.regulations.gov](http://www.regulations.gov), your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA’s public docket visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

*Docket:* All documents in the electronic docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. Although listed in the index, some information may not be publicly available, i.e., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in [www.regulations.gov](http://www.regulations.gov) or in hard copy at the Air Regulatory Management Section, Air Planning and Implementation Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. EPA requests that if at

all possible, you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office's official hours of business are Monday through Friday, 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Joel Huey, Air Planning and Implementation Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. Joel Huey may be reached by phone at (404) 562-9104 or via electronic mail at [huey.joel@epa.gov](mailto:huey.joel@epa.gov).

#### **SUPPLEMENTARY INFORMATION:**

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**I. What are the Actions EPA is Proposing to Take?**

EPA is proposing to take the following three separate but related actions, one of which involves multiple elements: (1) to determine that the Atlanta Area is continuing to attain the 1997 Annual PM<sub>2.5</sub> NAAQS; (2) to approve Georgia's plan for maintaining the 1997 Annual PM<sub>2.5</sub> NAAQS for the Atlanta Area (maintenance plan), including the associated MVEBs, into Georgia SIP; and (3) to redesignate the Atlanta Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS. EPA is also notifying the public of the status of EPA's adequacy determination for the MVEBs for the Atlanta Area. The Atlanta Area is comprised of twenty whole counties and two partial counties in Georgia: Barrow, Bartow, Carroll, Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Hall, Henry, Newton, Paulding, Rockdale, Spalding, Walton, and portions of Heard and Putnam Counties. Today's proposed actions are summarized below and described in great detail in this notice of proposed rulemaking.

EPA is making the preliminary determination that the Atlanta Area is continuing to attain the 1997 Annual PM<sub>2.5</sub> NAAQS based on recent air quality data<sup>1</sup> and proposing to approve Georgia's 1997 Annual PM<sub>2.5</sub> NAAQS maintenance plan for the Atlanta Area (such approval being one of the Clean Air Act (CAA or Act) criteria for redesignation to attainment status). The

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<sup>1</sup> As discussed in section V below, this proposed determination is also based on EPA's December 8, 2011, determination that the Atlanta Area was attaining the standard at that time. 76 FR 76620.

maintenance plan is designed to help keep the Atlanta Area in attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS through 2024. As explained in Section V below, EPA is also proposing to determine that attainment can be maintained through 2025. The maintenance plan that EPA is proposing to approve today includes on-road MVEBs for the mobile source contribution of NO<sub>x</sub> and direct PM<sub>2.5</sub> to the air quality problem in the Atlanta Area for transportation conformity purposes. EPA is proposing to approve the 2024 MVEBs for NO<sub>x</sub> and PM<sub>2.5</sub> for the Atlanta Area and incorporate them in to the Georgia SIP.

EPA also proposes to determine that the Atlanta Area has met the requirements for redesignation under section 107(d)(3)(E) of the CAA. Accordingly, in this action, EPA is proposing to approve a request to change the legal designation of the Barrow, Bartow, Carroll, Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Hall, Henry, Newton, Paulding, Rockdale, Spalding, Walton, and portions of Heard and Putnam Counties in Georgia from nonattainment to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS.

EPA is also notifying the public of the status of EPA's adequacy process for the 2024 NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for the Atlanta Area. The Adequacy comment period began on February 21, 2013, with EPA's posting of the availability of Georgia's submission on EPA's Adequacy website (<http://www.epa.gov/otaq/stateresources/transconf/currrips.htm#atlanta0221>). The Adequacy comment period for these MVEBs closed on March 25, 2013. No comments, adverse or otherwise, were received through the Adequacy process. Please see section VIII of this proposed rulemaking for further explanation of this process and for more details on the MVEBs.

In summary, today's notice of proposed rulemaking is in response to Georgia's August 30, 2012, redesignation request and associated SIP submission that address the specific issues summarized above and the necessary elements for redesignation described in section 107(d)(3)(E) of the CAA.

## **II. What is the Background for EPA's Proposed Actions?**

Fine particle pollution can be emitted directly or formed secondarily in the atmosphere.<sup>2</sup> The main precursors of secondary PM<sub>2.5</sub> are sulfur dioxide (SO<sub>2</sub>), NO<sub>x</sub>, ammonia, and volatile organic compounds (VOC). *See* 72 FR 20586, 20589 (April 25, 2007). Sulfates are a type of secondary particle formed from SO<sub>2</sub> emissions of power plants and industrial facilities. Nitrates, another common type of secondary particle, are formed from NO<sub>x</sub> emissions of power plants, automobiles, and other combustion sources.

On July 18, 1997, EPA promulgated the first air quality standards for PM<sub>2.5</sub>. EPA promulgated an annual standard at a level of 15 micrograms per cubic meter (µg/m<sup>3</sup>), based on a 3-year average of annual mean PM<sub>2.5</sub> concentrations. In the same rulemaking, EPA promulgated a 24-hour standard of 65 µg/m<sup>3</sup>, based on a 3-year average of the 98<sup>th</sup> percentile of 24-hour concentrations. On October 17, 2006, EPA retained the annual average NAAQS at 15 µg/m<sup>3</sup> but

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<sup>2</sup> Fine particulate matter, or PM<sub>2.5</sub>, refers to airborne particles less than or equal to 2.5 micrometers in diameter. Although treated as a single pollutant, fine particles come from many different sources and are composed of many different compounds. In the Atlanta Area, one of the largest components of PM<sub>2.5</sub> is sulfate, which is formed through various chemical reactions from the precursor SO<sub>2</sub>. The other major component of PM<sub>2.5</sub> is organic carbon, which originates predominantly from biogenic emission sources. Nitrate, which is formed from the precursor NO<sub>x</sub>, is also a component of PM<sub>2.5</sub>. Crustal materials from windblown dust and elemental carbon from combustion sources are less significant contributors to total PM<sub>2.5</sub>. VOCs, also precursors for PM, are emitted from a variety of sources, including motor vehicles, chemical plants, refineries, factories, consumer and commercial products, and other industrial sources. VOCs also are emitted by natural sources such as vegetation.

revised the 24-hour NAAQS to 35  $\mu\text{g}/\text{m}^3$ , based again on the 3-year average of the 98<sup>th</sup> percentile of 24-hour concentrations.<sup>3</sup> See 71 FR 61144. Under EPA regulations at 40 CFR part 50, the primary and secondary 1997 Annual  $\text{PM}_{2.5}$  NAAQS are attained when the annual arithmetic mean concentration, as determined in accordance with 40 CFR part 50, Appendix N, is less than or equal to 15.0  $\mu\text{g}/\text{m}^3$  at all relevant monitoring sites in the subject area averaged over a 3-year period.

On January 5, 2005, and supplemented on April 14, 2005, EPA designated the Atlanta Area as nonattainment for the 1997  $\text{PM}_{2.5}$  NAAQS. See 70 FR 944 and 70 FR 19844, respectively. On November 13, 2009, EPA promulgated designations for the 24-hour  $\text{PM}_{2.5}$  NAAQS established in 2006 and designated all counties of the Atlanta Area as unclassifiable/attainment for that standard. See 74 FR 58688. EPA did not promulgate designations for the 2006 Annual  $\text{PM}_{2.5}$  NAAQS because that NAAQS was essentially identical to the 1997 Annual  $\text{PM}_{2.5}$  NAAQS. The November 13, 2009, action also clarified that all counties of the Atlanta Area were designated unclassifiable/attainment for the 1997 24-hour  $\text{PM}_{2.5}$  NAAQS through the designations promulgated on January 5, 2005. Therefore, the Area is designated nonattainment for the 1997 Annual  $\text{PM}_{2.5}$  NAAQS, and today's action only addresses that designation.

All 1997  $\text{PM}_{2.5}$  NAAQS areas were originally designated under subpart 1 of title I, part D, of the CAA. Subpart 1 contains the general requirements for nonattainment areas for any

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<sup>3</sup> In response to legal challenges of the annual standard promulgated in 2006, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) remanded that NAAQS to EPA for further consideration. See *American Farm Bureau Federation and National Pork Producers Council, et al. v. EPA*, 559 F.3d 512 (D.C. Cir. 2009). However, given that the 1997 and 2006 Annual NAAQS are essentially identical, attainment of the 1997 Annual NAAQS would also indicate attainment of the remanded 2006 Annual NAAQS.



pollutant governed by a NAAQS and is less prescriptive than the other subparts of title I, part D. On April 25, 2007, EPA promulgated its Clean Air Fine Particle Implementation Rule, codified at 40 CFR part 51, subpart Z, in which the Agency provided guidance for state and tribal plans to implement the 1997 PM<sub>2.5</sub> NAAQS. *See* 72 FR 20664. This rule, at 40 CFR 51.1004(c), specifies some of the regulatory results of attaining the NAAQS, as discussed below. The D.C. Circuit remanded the Clean Air Fine Particle Implementation Rule and the final rule entitled “Implementation of the New Source Review (NSR) Program for Particulate Matter Less than 2.5 Micrometers (PM<sub>2.5</sub>)” (73 FR 28321, May 16, 2008) (collectively, “1997 PM<sub>2.5</sub> Implementation Rules”) to EPA on January 4, 2013, in *Natural Resources Defense Council v. EPA*, 706 F.3d 428 (D.C. Cir. 2013). The Court found that EPA erred in implementing the 1997 PM<sub>2.5</sub> NAAQS pursuant to the general implementation provisions of subpart 1 of Part D of Title I of the CAA rather than the particulate matter-specific provisions of subpart 4 of part D of title I. The effect of the Court’s ruling on this proposed redesignation action is discussed in detail in Section VI of this notice.

The 3-year ambient air quality data for 2008-2010 indicated no violations of the 1997 PM<sub>2.5</sub> NAAQS for the Atlanta Area. As a result, on August 30, 2012, Georgia requested redesignation of the Atlanta Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS. The redesignation request includes three years of ambient air quality data, certified as quality-assured by the State of Georgia, for the 1997 Annual PM<sub>2.5</sub> NAAQS for 2008-2010, indicating that the 1997 PM<sub>2.5</sub> NAAQS had been achieved for the Atlanta Area. Under the CAA, nonattainment areas may be redesignated to attainment if sufficient quality-assured data is available for the Administrator to determine that the area has attained the standard and the area meets the other

CAA redesignation requirements in section 107(d)(3)(E). The Atlanta Area's design value,<sup>4</sup> based on data from 2008 through 2010, is below 15.0 µg/m<sup>3</sup>, which demonstrates attainment of the standard. While annual PM<sub>2.5</sub> concentrations are dependent on a variety of conditions, the overall improvement in annual PM<sub>2.5</sub> concentrations in the Atlanta Area can be attributed to the reduction of pollutant emissions, as discussed in more detail in Section V of this proposed rulemaking.

### **III. What are the Criteria for Redesignation?**

The CAA provides the requirements for redesignating a nonattainment area to attainment. Specifically, section 107(d)(3)(E) of the CAA allows for redesignation provided the following criteria are met: (1) the Administrator determines that the area has attained the applicable NAAQS; (2) the Administrator has fully approved the applicable implementation plan for the area under section 110(k); (3) the Administrator 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) the Administrator has fully approved a maintenance plan for the area as meeting the requirements of section 175A; and (5) the state containing such area has met all requirements applicable to the area under section 110 and part D of title I of the CAA.

On April 16, 1992, EPA provided guidance on redesignation in the General Preamble for the Implementation of title I of the CAA Amendments of 1990 (57 FR 13498), and the Agency

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<sup>4</sup> Design values are the metrics that are compared to the NAAQS levels to determine attainment. The annual design value is calculated as the average of three consecutive annual means. *See* 40 CFR part 50, Appendix N.

supplemented this guidance on April 28, 1992 (57 FR 18070). EPA 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 “Calcagni Memorandum”);
2. “State Implementation Plan (SIP) Actions Submitted in Response to Clean Air Act (CAA) Deadlines,” Memorandum from John Calcagni, Director, Air Quality Management Division, October 28, 1992; and
3. “Part D New Source Review (Part D NSR) Requirements for Areas Requesting Redesignation to Attainment,” Memorandum from Mary D. Nichols, Assistant Administrator for Air and Radiation, October 14, 1994.

#### **IV. Why is EPA Proposing These Actions?**

On August 30, 2012, the State of Georgia, through the GA EPD, requested that EPA redesignate the Atlanta Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS. EPA’s evaluation indicates that the Area has attained the 1997 PM<sub>2.5</sub> NAAQS and meets the requirements for redesignation set forth in section 107(d)(3)(E), including the maintenance plan requirements under section 175A of the CAA. As a result, EPA is proposing to take the three related actions summarized in section I of this notice.

## **V. What is EPA's Analysis of the Request?**

As stated above, in accordance with the CAA, EPA proposes in today's action to: (1) make the determination that the Atlanta Area continues to attain the 1997 Annual PM<sub>2.5</sub> NAAQS; (2) approve the 1997 Annual PM<sub>2.5</sub> NAAQS maintenance plan for the Atlanta Area, including the associated MVEBs, into the Georgia SIP as described below; and (3) redesignate the Atlanta Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS. The five redesignation criteria provided under CAA section 107(d)(3)(E) are discussed in greater detail for the Atlanta Area in the following paragraphs of this section.

### **Criteria (1) - *The Atlanta Area has attained the 1997 Annual PM<sub>2.5</sub> NAAQS.***

For redesignating a nonattainment area to attainment, the CAA requires EPA to determine that the area has attained the applicable NAAQS (CAA section 107(d)(3)(E)(i)). For PM<sub>2.5</sub>, an area may be considered to be attaining the 1997 Annual PM<sub>2.5</sub> NAAQS if it meets the standards, as determined in accordance with 40 CFR 50.13 and Appendix N of part 50, based on three complete, consecutive calendar years of quality-assured air quality monitoring data. To attain these NAAQS, the 3-year average of the annual arithmetic mean concentration, as determined in accordance with 40 CFR part 50, Appendix N, must be less than or equal to 15.0 µg/m<sup>3</sup> at all relevant monitoring sites in the subject area over a 3-year period. The relevant data must be collected and quality-assured in accordance with 40 CFR part 58 and recorded in the EPA Air Quality System (AQS) database. The monitors generally should have remained at the same location for the duration of the monitoring period required for demonstrating attainment.

On December 8, 2011, EPA determined that the Atlanta Area was attaining the 1997 Annual PM<sub>2.5</sub> NAAQS and that the Area had attained the NAAQS by the applicable attainment date of April 5, 2010.<sup>5</sup> *See* 76 FR 76620. For that action, EPA reviewed PM<sub>2.5</sub> monitoring data from monitoring stations in the Atlanta Area for the 1997 Annual PM<sub>2.5</sub> NAAQS for 2007 through 2010. Those data were quality-assured and recorded in AQS. For today's proposed action, EPA has reviewed all PM<sub>2.5</sub> monitoring data after 2010 from the seven PM<sub>2.5</sub> monitoring stations, and that data indicates that the Atlanta Area continues to attain the 1997 Annual PM<sub>2.5</sub> NAAQS.

As shown in Table 1 below, the monitors in the Atlanta Area that have collected complete data since 2010 all have three-year average PM<sub>2.5</sub> concentrations (i.e., design values) that are in attainment with the 1997 Annual PM<sub>2.5</sub> NAAQS and are trending downward overall. The most recent available design value is for 2014 and is based on the 3-year period 2012-2014. The Fire Station No. 8 monitor had incomplete data during the 3<sup>rd</sup> quarter of 2012 and is not eligible for the high value data substitution test in 40 CFR Part 50, Appendix N. However, based upon the analysis described in the monitoring Technical Support Document (TSD) located in the docket for today's action, EPA has preliminarily determined that the upper end of the probable range for the 2014 design value at the Fire Station No. 8 monitor (11.1 µg/m<sup>3</sup>) is well below the NAAQS. On the basis of this review, EPA has preliminarily concluded that the Atlanta Area continues to meet the 1997 Annual PM<sub>2.5</sub> NAAQS of 15.0 µg/m<sup>3</sup> for the period 2012-2014, the most recent 3-year period of certified data availability.

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<sup>5</sup> The design value for an area is the highest 3-year average of annual mean concentrations recorded at any monitor in the area. Therefore, the 3-year design value for the period on which Georgia based its redesignation request (2008-2010) for the Atlanta Area is 12.9 µg/m<sup>3</sup>, which is below the 1997 Annual PM<sub>2.5</sub> NAAQS. Additional details can be found in EPA's final clean data determination for the Atlanta Area. *See* 76 FR 76620 (December 8, 2011).

**Table 1 – Design Value Concentrations for the Atlanta Area for the 1997 Annual PM<sub>2.5</sub> NAAQS (µg/m<sup>3</sup>)**

Location	Site ID	3-Year Design Values				
		2008-2010	2009-2011	2010-2012	2011-2013	2012-2014
Georgia DOT	13-063-0091	12.9	12.6	12.3	11.1	10.3
GA National Guard	13-067-0003	12.3	11.7*	11.3*	10.4*	10.0
Powder Springs <sup>#</sup>	13-067-0004	11.9*	11.3*	11.1	NA	NA
South DeKalb	13-089-0002	12.1	11.9	11.5	10.5	9.9
Police Dept. <sup>#</sup>	13-089-2001	12.3	11.8*	11.3*	NA	NA
E. Rivers School <sup>#</sup>	13-121-0032	12.3	11.8*	11.3*	NA	NA
Fire Station No. 8	13-121-0039	11.4*	13.2	13.0	11.6*	11.0*
Gwinnett Tech	13-135-0002	12.1	11.6*	11.2*	10.1*	9.5
Gainesville	13-139-0003	11.2	10.7	10.4	9.5	8.9
Yorkville	13-223-0003	11.0	10.6*	10.3*	9.3*	8.7

\* Data is incomplete.

<sup>#</sup> Monitor shut down at the end of 2012 in accordance the State's federally approved monitoring network plan.

The most recent data indicate the Atlanta Area continues to attain the 1997 Annual PM<sub>2.5</sub> NAAQS beyond the submitted 3-year attainment period of 2008-2010. If the Area does not continue to attain before EPA finalizes the redesignation, EPA will not go forward with the redesignation. As discussed in more detail below, GA EPD has committed to continue monitoring in this Area in accordance with 40 CFR part 58.

***Criteria (5) – Georgia has met all Applicable Requirements under Section 110 and part D of the CAA; and Criteria (2) – Georgia has a fully approved SIP under section 110(k) for the Atlanta Area.***

For redesignating a nonattainment area to attainment, the CAA requires EPA to determine that the state has met all applicable requirements under section 110 and part D of title I of the CAA (CAA section 107(d)(3)(E)(v)) and that the state has a fully approved SIP under section 110(k) for the area (CAA section 107(d)(3)(E)(ii)). EPA proposes to find that Georgia has met all applicable SIP requirements for the Atlanta Area under section 110 of the CAA (general SIP requirements) and that the Georgia SIP satisfies the criterion that it meets applicable SIP requirements for purposes of redesignation under part D of title I of the CAA (requirements specific to 1997 Annual PM<sub>2.5</sub> nonattainment areas) in accordance with section 107(d)(3)(E)(v). Further, EPA proposes to determine that the SIP is fully approved with respect to all requirements applicable for purposes of redesignation in accordance with section 107(d)(3)(E)(ii). In making these determinations, EPA ascertained which requirements are applicable to the Area and, if applicable, that they are fully approved under section 110(k). SIPs

must be fully approved only with respect to requirements that were applicable prior to submittal of the complete redesignation request.

a. *The Atlanta Area has met all applicable requirements under section 110 and part D of the CAA.*

*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. General SIP elements and requirements are delineated in section 110(a)(2) of title I, part A of the CAA. These requirements include, but are not limited to, the following: submittal of a SIP that has been adopted by the state after reasonable public notice and hearing; provisions for establishment and operation of appropriate procedures needed to monitor ambient air quality; implementation of a source permit program; provisions for the implementation of part C requirements (Prevention of Significant Deterioration (PSD)) and provisions for the implementation of part D requirements (NSR permit programs); provisions for air pollution modeling; and provisions for public and local agency participation in planning and emission control rule development.

Section 110(a)(2)(D) 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, EPA has required certain states to establish programs to address the interstate transport of air pollutants. The 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 the CAA's interstate transport requirements should be construed to be applicable requirements for purposes of redesignation.

In addition, EPA believes other section 110 elements that are neither connected with nonattainment plan submissions nor 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 the area is redesignated. The section 110 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. This approach is consistent with EPA's existing policy on applicability (i.e., for redesignations) of conformity and oxygenated fuels requirements, as well as with section 184 ozone transport requirements. *See* Reading, Pennsylvania, proposed and final rulemakings (61 FR 53174-53176, October 10, 1996), (62 FR 24826, May 7, 1997); Cleveland-Akron-Loraine, Ohio, final rulemaking (61 FR 20458, May 7, 1996); and Tampa, Florida, final rulemaking at (60 FR 62748, December 7, 1995). *See also* the discussion on this issue in the Cincinnati, Ohio, redesignation (65 FR 37890, June 19, 2000) and in the Pittsburgh, Pennsylvania, redesignation (66 FR 50399, October 19, 2001).

In any event, on October 25, 2012, EPA approved all infrastructure SIP elements required under section 110(a)(2) for the 1997 Annual PM<sub>2.5</sub> NAAQS with the exception of the visibility

element under section 110(a)(2)(D)(i)(II) (also known as “prong 4”). *See* 77 FR 65125. EPA approved prong 4 for the 1997 Annual PM<sub>2.5</sub> NAAQS on May 7, 2014. *See* 79 FR 26143. These requirements are statewide requirements that are not linked to the PM<sub>2.5</sub> nonattainment status of the Atlanta Area, and thus, as stated above, EPA does not believe these section 110 elements to be applicable for purposes of this redesignation. Therefore, EPA believes it has approved all SIP elements under section 110 that must be approved as a prerequisite for the redesignation to attainment of the Atlanta Area.

*Title I, Part D, subpart 1 applicable SIP requirements.* EPA proposes to determine that the Georgia SIP meets the applicable SIP requirements for the Atlanta Area for purposes of redesignation under part D of the CAA. Subpart 1 of part D, found in sections 172-176 of the CAA, sets forth the basic nonattainment requirements applicable to all nonattainment areas. All areas that were designated nonattainment for the 1997 Annual PM<sub>2.5</sub> NAAQS were designated under subpart 1 of the CAA. For purposes of evaluating this redesignation request, the applicable part D, subpart 1 SIP requirements for all nonattainment areas are contained in sections 172(c)(1)-(9) and in section 176. A thorough discussion of the requirements contained in sections 172 and 176 can be found in the General Preamble for Implementation of title I. *See* 57 FR 13498 (April 16, 1992). Section VI of this proposed rulemaking notice discusses the relationship between this proposed redesignation action and subpart 4 of Part D.

*Subpart 1 Section 172 Requirements.* Section 172(c)(1) requires the plans for all nonattainment areas to provide for the implementation of all reasonably available control measures (RACM) as expeditiously as practicable and to provide for attainment of the NAAQS.

EPA interprets this requirement to impose a duty on all nonattainment areas to consider all available control measures and to adopt and implement such measures as are reasonably available for implementation in each area as components of the area's attainment demonstration. Under section 172, states with nonattainment areas must submit plans providing for timely attainment and meeting a variety of other requirements. However, pursuant to 40 CFR 51.1004(c), EPA's final determination that the Atlanta Area is attaining the PM<sub>2.5</sub> standard suspended Georgia's obligation to submit most of the attainment planning requirements that would otherwise apply.

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 CAA 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 reasonable further progress (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 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).<sup>6</sup> 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).

Therefore, because attainment has been reached in the Atlanta Area, 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 the standard until redesignation. The section 172(c)(2) 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 Atlanta Area has monitored attainment of the 1997 Annual PM<sub>2.5</sub> NAAQS. In addition, because the Atlanta Area has attained the 1997 Annual 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.

Section 172(c)(3) requires submission for approval a comprehensive, accurate, and current inventory of actual emissions. On March 1, 2012, EPA approved Georgia’s 2002 base-year emissions inventory for the Atlanta Area. *See* 77 FR 12487.

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<sup>6</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 VI of this notice. However, the Clean Data Policy portion of the implementation rule was not at issue in that case.

Section 172(c)(4) requires the identification and quantification of allowable emissions for major new and modified stationary sources to be allowed 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 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.” Georgia has demonstrated that the Atlanta Area will be able to maintain the NAAQS without part D NSR in effect, and therefore Georgia need not have fully approved part D NSR programs prior to approval of the redesignation request. Georgia’s PSD program will become effective in the Atlanta Area upon redesignation to attainment.

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

*176 Conformity Requirements.* 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 that EPA promulgated pursuant to its authority under the CAA.

EPA believes that it is reasonable to interpret the conformity SIP requirements<sup>7</sup> as not applying for purposes of evaluating the redesignation request under 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 (upholding this interpretation) (6th Cir. 2001); *See* 60 FR 62748 (December 7, 1995). Nonetheless, Georgia has an approved conformity SIP for the Atlanta Area. *See* 77 FR 35866 (June 15, 2012).

Thus, for the reasons discussed above, the Atlanta Area has satisfied all applicable requirements for purposes of redesignation under section 110 and part D of the CAA.

*b. The Atlanta Area has a fully approved applicable SIP under section 110(k) of the CAA.*

EPA has fully approved the applicable Georgia SIP for the Atlanta Area for the 1997 Annual PM<sub>2.5</sub> NAAQS under section 110(k) of the CAA for all requirements applicable for purposes of redesignation. EPA may rely on prior SIP approvals in approving a redesignation request (*see* Calcagni Memorandum at p. 3; *Southwestern Pennsylvania Growth Alliance v. Browner*, 144 F.3d 984 (6<sup>th</sup> Cir. 1998); *Wall*, 265 F.3d 426) plus any additional measures it may approve in conjunction with a redesignation action. *See* 68 FR 25426 (May 12, 2003) and

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<sup>7</sup> CAA Section 176(c)(4)(E) requires states to submit revisions to their SIPs to reflect certain federal criteria and procedures for determining transportation conformity. Transportation conformity SIPs are different from the motor vehicle emission budgets that are established in control strategy SIPs and maintenance plans.

citations therein. Following passage of the CAA of 1970, Georgia has adopted and submitted, and EPA has fully approved at various times, provisions addressing the various SIP elements applicable for the 1997 Annual PM<sub>2.5</sub> NAAQS in the Atlanta Area (e.g., 77 FR 65125 (October 25, 2012)).

As indicated above, EPA believes that the section 110 elements that are neither connected with nonattainment plan submissions nor linked to the area's nonattainment status are not applicable requirements for purposes of redesignation. EPA has approved all part D requirements applicable for purposes of this redesignation.

***Criteria (3) - The air quality improvement in the Atlanta 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.***

For redesignating a nonattainment area to attainment, the CAA 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 (CAA section 107(d)(3)(E)(iii)). EPA has preliminarily determined that Georgia has demonstrated that the observed air quality improvement in the Atlanta Area is due to permanent and enforceable reductions in emissions resulting from implementation of the SIP and Federal measures.

Federal measures enacted in recent years have resulted in permanent emission reductions in particulate matter and its precursors. Most of these emission reductions are enforceable

through regulations. A few non-regulatory measures also result in emission reductions. The Federal measures that have been implemented include:

*Tier 2 vehicle standards and low-sulfur gasoline.* Implementation of the Tier 2 vehicle standards began in 2004, and as newer, cleaner cars enter the national fleet, these standards continue to significantly reduce NOx emissions. The standards require all classes of passenger vehicles in any manufacturer's fleet to meet an average standard of 0.07 grams of NOx per mile. In addition, starting in January of 2006, the Tier 2 rule reduced the allowable sulfur content of gasoline to 30 parts per million (ppm). Most gasoline sold prior to this had a sulfur content of approximately 300 ppm. EPA expects that these standards will reduce NOx emissions from vehicles by approximately 74 percent by 2030, translating to nearly 3 million tons annually by 2030.

*Heavy-duty gasoline and diesel highway vehicle standards & ultra low-sulfur diesel rule.* On October 6, 2000, EPA promulgated a rule to reduce NOx and VOC emissions from heavy-duty gasoline and diesel highway vehicles that began to take effect in 2004. *See* 65 FR 59896. On January 18, 2001, EPA promulgated a second phase of standards and testing procedures which began in 2007 to reduce particulate matter emissions from heavy-duty highway engines and reduced the maximum highway diesel fuel sulfur content from 500 ppm to 15 ppm. *See* 66 FR 5002. The total program should achieve a 90 percent reduction in PM emissions and a 95 percent reduction in NOx emissions for new engines using low-sulfur diesel, compared to existing engines using higher-content sulfur diesel. EPA expects that this rule will reduce NOx emissions by 2.6 million tons by 2030 when the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.



*Non-road, large spark-ignition engines and recreational engines standards.* The non-road spark-ignition and recreational engine standards, effective in July 2003, regulate NO<sub>x</sub>, hydrocarbons, and carbon monoxide from groups of previously unregulated non-road engines. These engine standards apply to large spark-ignition engines (e.g., forklifts and airport ground service equipment), recreational vehicles (e.g., off-highway motorcycles and all-terrain-vehicles), and recreational marine diesel engines sold in the United States and imported after the effective date of these standards. When all of the non-road spark-ignition and recreational engine standards are fully implemented, an overall 72 percent reduction in hydrocarbons, 80 percent reduction in NO<sub>x</sub>, and 56 percent reduction in carbon monoxide emissions are expected by 2020. These controls help reduce ambient concentrations of PM<sub>2.5</sub>.

*Large non-road diesel engine standards.* This rule, which applies to diesel engines used in industries such as construction, agriculture, and mining, was promulgated in 2004 and fully phased in by 2014. This rule reduced allowable non-road diesel fuel sulfur levels from approximately 3,000 ppm to 500 ppm in 2007 and further reduced those levels to 15 ppm starting in 2010 (a 99 percent reduction). This rule also achieved significant reductions of up to 90 percent for NO<sub>x</sub> and particulate matter emissions nationwide.

*NO<sub>x</sub> SIP Call.* On October 27, 1998 (63 FR 57356), EPA issued the NO<sub>x</sub> SIP Call requiring the District of Columbia and 22 states to reduce emissions of NO<sub>x</sub>, a precursor to ozone and PM<sub>2.5</sub> pollution, and providing a mechanism (the NO<sub>x</sub> Budget Trading Program) that states could use to achieve those reductions. Affected states were required to comply with Phase I of the SIP Call beginning in 2004 and Phase II beginning in 2007. By the end of 2008, ozone season NO<sub>x</sub> emissions from sources subject to the NO<sub>x</sub> SIP Call dropped by 62 percent from

2000 emissions levels. All NO<sub>x</sub> SIP Call states have SIPs that currently satisfy their obligations under the NO<sub>x</sub> SIP Call, and EPA will continue to enforce the requirements of the NO<sub>x</sub> SIP Call.

*CAIR and CSAPR.* In its redesignation request and maintenance plan, the State identified the Clean Air Interstate Rule (CAIR) as a permanent and enforceable measure that contributed to attainment in the Atlanta Area. Moreover, by 2007, the beginning of the attainment time period identified by Georgia, CAIR had been promulgated and was achieving emission reductions. CAIR created regional cap-and-trade programs to reduce SO<sub>2</sub> and NO<sub>x</sub> emissions in 27 eastern states, including Georgia, that contributed to downwind nonattainment or interfered with maintenance of the 1997 8-hour ozone NAAQS and the 1997 PM<sub>2.5</sub> NAAQS. *See* 70 FR 25162 (May 12, 2005).

In 2007 the State promulgated Georgia Rules 391–3–1–.02(2)(sss) - “Multipollutant Rule” (Rule (sss)) and 391–3–1–.02(2)(uuu) - “SO<sub>2</sub> Emissions from Electric Steam Utility Steam Generating Units” (Rule (uuu)) in response to CAIR. Rule (sss) requires the installation and operation of flue gas desulfurization (FGD) to control SO<sub>2</sub> emissions and selective catalytic reduction (SCR) to control NO<sub>x</sub> emissions on the majority of the coal-fired electric generating units (EGUs) in Georgia, and Rule (uuu) requires a 95 percent reduction in SO<sub>2</sub> emissions from those EGUs. Thus, Rules (sss) and (uuu) act as companion rules for the reduction of SO<sub>2</sub> emissions, with Rule (sss) requiring control equipment installation and Rule (uuu) imposing SO<sub>2</sub> emission limitations. Georgia designed Rules (sss) and (uuu) to require emissions reductions consistent with achieving the reductions mandated by CAIR’s original compliance schedule beginning in 2009. The implementation dates for Rules (sss) and (uuu) are phased-in across the covered EGUs, starting on December 31, 2008, for Rule (sss) and January 1, 2010, for Rule

(uuu).<sup>8</sup> By installing and operating FGD and SCR controls in accordance with Rule (sss), Georgia EGUs also met the requirements of CAIR.

In 2008 the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) 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's remand, EPA promulgated the Cross-State Air Pollution Rule (CSAPR) to replace CAIR and thus to address the interstate transport of emissions contributing to nonattainment and interfering with maintenance of the two air quality standards covered by CAIR as well as the 2006 PM<sub>2.5</sub> NAAQS. CSAPR requires substantial reductions of SO<sub>2</sub> and NO<sub>x</sub> emissions from EGUs in 28 states in the Eastern United States. As a general matter, because CSAPR is CAIR's replacement, emissions reductions associated with CAIR will for most areas be made permanent and enforceable through implementation of CSAPR.

Numerous parties filed petitions for review of CSAPR in the D.C. Circuit, and on August 21, 2012, the court issued its ruling, vacating and remanding CSAPR to EPA and 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's vacatur of CSAPR was reversed by the United States

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<sup>8</sup> Rule (sss) established the following 2008-2010 deadlines for FGD operation: December 31, 2008, at Plant Bowen Units 3 and 4, Plant Hammond Units 1 through 4, Plant Wansley Unit 1, and Plant Yates Unit 1; June 1, 2009, at Plant Bowen Unit 2; December 31, 2009, at Plant Wansley Unit 2; and June 1, 2010, at Plant Bowen Unit 1. The Rule established the following 2008-2010 deadlines for SCR operation: December 31, 2008, at Plant Bowen Units 3 and 4, Plant Hammond Unit 4, and Plant Wansley Unit 1; June 1, 2009, at Plant Bowen Unit 2; December 31, 2009, at Plant Wansley Unit 2; and June 1, 2010, at Plant Bowen Unit 1. Plants Bowen and Wansley are located in the Atlanta Area, and Plant Hammond is located in Floyd County, Georgia, which is adjacent to the northwestern portion of the Atlanta Area.

Supreme Court on April 29, 2014, and the case was remanded to the D.C. Circuit to resolve remaining issues in accordance with the high court's ruling. *EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584 (2014). On remand, the D.C. Circuit affirmed CSAPR in most respects, but invalidated without vacating some of the CSAPR budgets as to a number of states. *EME Homer City Generation, L.P. v. EPA*, 795 F.3d 118 (D.C. Cir. 2015) (*EME Homer City II*). The remanded budgets include the Phase 2 SO<sub>2</sub> emissions budgets for Georgia. The Phase 2 annual and ozone season NO<sub>x</sub> budgets for Georgia are not affected by the Court's decision. The litigation over CSAPR ultimately delayed implementation of that rule for three years, from January 1, 2012, when CSAPR's cap-and-trade programs were originally scheduled to replace the CAIR cap-and-trade programs, to January 1, 2015. Thus, the rule's Phase 2 budgets were originally promulgated to begin on January 1, 2014, and are now scheduled to begin on January 1, 2017. CSAPR will continue to operate under the existing emissions budgets until EPA addresses the D.C. Circuit's remand.

Although the State identified CAIR as a permanent and enforceable measure that contributed to attainment of the 1997 PM<sub>2.5</sub> NAAQS in the Atlanta Area, EPA is proposing to approve the redesignation of the Atlanta Area without relying the SO<sub>2</sub> emissions reductions associated with CAIR at Georgia EGUs as having led to attainment of the 1997 PM<sub>2.5</sub> NAAQS or contributing to maintenance of that standard.<sup>9</sup> In so doing, we are proposing to determine that the D.C. Circuit's invalidation of the Georgia CSAPR Phase 2 SO<sub>2</sub> emissions budgets does not bar today's proposed redesignation. The Court's decision did not affect Georgia's CSAPR Phase

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<sup>9</sup> The improvement in PM<sub>2.5</sub> air quality in the Area from nonattainment to attainment is not due to CSAPR emissions reductions because, as noted above, CSAPR did not go into effect until January 1, 2015, after the Area was already attaining the standard.

2 annual NO<sub>x</sub> emissions budgets; therefore, CSAPR ensures that the NO<sub>x</sub> emissions reductions associated with CAIR at Georgia EGUs are permanent and enforceable.<sup>10</sup>

In its redesignation request, Georgia noted that a number of states significantly contributed to PM<sub>2.5</sub> concentrations in the Atlanta Area based on EPA air quality modeling. EPA identified the Atlanta Area as an area that was significantly impacted by pollution transported from other states in both CAIR and CSAPR, and these rules greatly reduced the tons of SO<sub>2</sub> emissions generated in the states upwind of the Atlanta Area. The air quality modeling performed for the CAIR rulemaking identified the following seven states as having significantly contributed to PM<sub>2.5</sub> concentrations in the Atlanta Area: Alabama, Florida, Indiana, Kentucky, Ohio, South Carolina, and Tennessee. *See* 70 FR 25162, 25247-49 (May 12, 2005). The total annual SO<sub>2</sub> emissions generated by EGUs in these seven states in 2004, prior to the promulgation of CAIR in 2005, was approximately 3,814,790 tons. Even though the first phase of CAIR implementation for SO<sub>2</sub> did not begin until 2010, many sources began reducing their emissions well in advance of the first compliance deadline because of the incentives offered by CAIR for early compliance with the rule. Therefore, by 2008, the total annual SO<sub>2</sub> emissions generated by EGUs in the seven states significantly contributing to nonattainment in the Atlanta Area was approximately 2,636,952 tons, and by 2010, that volume had decreased to approximately 1,814,572 tons.<sup>11</sup> The vast majority of the SO<sub>2</sub> emission reductions in the states upwind of the

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<sup>10</sup> CAIR and CSAPR established annual NO<sub>x</sub> and SO<sub>2</sub> budgets to address nonattainment and interference with maintenance of the PM<sub>2.5</sub> standard because, as discussed above in Section II, NO<sub>x</sub> and SO<sub>2</sub> are two primary PM<sub>2.5</sub> precursors.

<sup>11</sup> This data was collected through the Acid Rain Program and is available on EPA's CAMD website at <http://www2.epa.gov/airmarkets>.

Atlanta Area achieved by CAIR, and made permanent by CSAPR, are unaffected by the D.C. Circuit's remand of CSAPR.<sup>12</sup>

Regarding the impact of SO<sub>2</sub> emission reductions from Georgia EGUs associated with CAIR, EPA is proposing to determine that the Atlanta Area would have attained the 1997 PM<sub>2.5</sub> NAAQS even without those in-state EGU reductions. The Agency has reviewed an analysis submitted by the State on January 10, 2015, and revised on November 3, 2015, evaluating the sensitivity of PM<sub>2.5</sub> concentrations in the Area to SO<sub>2</sub> reductions associated with Rule (sss).<sup>13</sup> The analysis was based on photochemical modeling conducted by the Visibility Improvement State and Tribal Association of the Southeast (VISTAS). The State used this modeling to determine the sensitivity of PM<sub>2.5</sub> concentrations at the ten air quality monitors in the Atlanta Area to reductions in SO<sub>2</sub> emissions from certain Georgia EGUs. The State then estimated, for each monitor, the air quality impact of the SO<sub>2</sub> emission reductions from Georgia Rule (sss),<sup>14</sup> and thus from CAIR, that occurred during the relevant time period. Georgia estimated that the SO<sub>2</sub> controls in place due to Rule (sss) by the end of 2009 reduced the 2008-2010 Annual PM<sub>2.5</sub> design value by approximately 0.6 µg/m<sup>3</sup>. Adding this impact to the highest 2008-2010 design

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<sup>12</sup> Only two of the seven state Phase 2 SO<sub>2</sub> budgets were remanded by the D.C. Circuit in *EME Homer City II*, and the emissions from these two states represented only 19.5 percent (515,165 tons) of the total SO<sub>2</sub> EGU emissions from the seven significantly contributing states in 2008, 19.3 percent (375,913 tons) in 2009, and 16.5 percent (298,803 tons) in 2010. The CSAPR Phase 2 SO<sub>2</sub> budgets for the remaining five states, and the emissions reductions those budgets require, are unaffected by the Court's remand and are permanent and enforceable. Moreover, updated air quality modeling performed for the CSAPR rulemaking identified additional states that interfered with Atlanta's attainment of the 1997 PM<sub>2.5</sub> NAAQS, and SO<sub>2</sub> emission reductions from those additional states are unaffected by the D.C. Circuit's remand. 76 FR 48207, 48241 (August 8, 2011).

<sup>13</sup> GA EPD, Sensitivity of Annual PM<sub>2.5</sub> in Atlanta to SO<sub>2</sub> Emission Reductions Resulting from Georgia's Multipollutant Rule [391-3-1-.02(2)(sss)] (attachment to a November 3, 2015, email from James Boylan, GA EPD, to Joel Huey, EPA Region 4, included in the docket for this action).

<sup>14</sup> By the end of 2009, Rule (sss) required FGD operation at Plant Bowen Units 2 through 4, Plant Hammond Units 1 through 4, Plant Wansley Units 1 and 2, and Plant Yates Unit 1.

value for the Atlanta Area, 13.6  $\mu\text{g}/\text{m}^3$  for the Fire Station No. 8 site (with data substitution),<sup>15</sup> yields a maximum  $\text{PM}_{2.5}$  concentration of 14.2  $\mu\text{g}/\text{m}^3$ , meeting the 1997 Annual  $\text{PM}_{2.5}$  standard of 15  $\mu\text{g}/\text{m}^3$ . The State therefore concluded that the Area would have attained the standard in the 2008-2010 timeframe even without the  $\text{SO}_2$  emission reductions, in place by the end of 2009, from Georgia Rule (sss).

EPA proposes to agree with this analysis and believes that adding the 0.6  $\mu\text{g}/\text{m}^3$  value to the 2008-2010 design value is a reasonable estimate of the actual impact of the  $\text{SO}_2$  emissions reductions due to Rule (sss) and CAIR at Georgia EGUs. For more information about Georgia's sensitivity analysis and EPA's review of that analysis, see the Rule (sss) impact TSD included in the docket for this action.<sup>16</sup>

*State Measures.* The State identified Rules (sss) and (uuu) and the State's April 16, 2008 smoke management plan as state control measures that contributed to attainment of the 1997  $\text{PM}_{2.5}$  NAAQS in the Atlanta Area. Although Georgia describes these state measures in the section of its submittal devoted to "permanent and enforceable" reductions under CAA section 107(d)(3)(E)(iii), "enforceable" means federally enforceable. Therefore, state measures that are not approved by EPA into a state's SIP are not "enforceable" for purposes of the CAA. However, EPA does not believe that the state measures' lack of enforceability poses a bar to proposed approval of the redesignation of the Atlanta Area.

First, as discussed above, EPA proposes to agree with the State's sensitivity analysis demonstrating that the Area would have attained the 1997  $\text{PM}_{2.5}$  NAAQS even without the  $\text{SO}_2$

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<sup>15</sup> EPA's Clean Data Determination for the Atlanta Area describes this data substitution. See 76 FR 76620 (December 8, 2011).

<sup>16</sup> EPA Region 4, Technical Support Document for Georgia Rule (sss) Impact Analysis (November 2015).

emission reductions associated with the installation of SO<sub>2</sub> controls on Georgia EGUs subject to Rule (sss) and CAIR. To the extent that the controls required by Rule (sss) also achieved annual NO<sub>x</sub> reductions, CSAPR makes those reductions permanent and federally enforceable with its federal implementation plan (FIP) regarding Georgia's annual NO<sub>x</sub> emissions budget, which was not affected by the D.C. Circuit's recent remand of other state budgets.<sup>17</sup> Second, to the extent that Rule (uuu) resulted in any reductions before its January 1, 2010, compliance date, Georgia's sensitivity analysis assumed that the FGD controls required by Rule (sss) achieve the 95 percent reduction in SO<sub>2</sub> emissions required by Rule (uuu). Because Georgia's sensitivity analysis demonstrates that Rule (sss) was not necessary for attainment of the NAAQS in the Atlanta Area using emissions reductions associated with a 95 percent reduction in SO<sub>2</sub>, the same reduction required by Rule (uuu), the analysis also demonstrates that Rule (uuu) was not necessary for attainment prior to January 1, 2010. Finally, with regard to the State's smoke management plan, that measure is focused on protection of Georgia's forest land. While the SMP may result in some direct PM emission reductions, such reductions are likely to be modest because the SMP is not an emission reduction measure. The SMP was developed as tool to minimize the public health and environmental impacts of smoke intrusion into populated areas through better management of fires that are important to forests and agricultural resources. In addition, the State deemed it important to have an SMP in place for the purpose of flagging unusually large forest fires as exceptional events (which could impact an area's ability to show maintenance through attaining design values). The rule therefore has more impact on rural areas than an urban environment such as Atlanta, where direct PM<sub>2.5</sub> emissions from fires make up less than

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<sup>17</sup> 76 FR 48208, August 8, 2011.



one percent of the total direct PM<sub>2.5</sub> emissions from fires across the State.<sup>18</sup> For these reasons, EPA has not relied on these state-only rules as a basis for proposing approval of the redesignation request and associated maintenance plan.

**Criteria (4) - *The Atlanta Area has a fully approved maintenance plan pursuant to section 175A of the CAA.***

For redesignating a nonattainment area to attainment, the CAA requires EPA to determine that the area has a fully approved maintenance plan pursuant to section 175A of the CAA (CAA section 107(d)(3)(E)(iv)). In conjunction with its request to redesignate the Atlanta Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS, GA EPD submitted a SIP revision to provide for the maintenance of the 1997 Annual PM<sub>2.5</sub> NAAQS for at least 10 years after the effective date of redesignation to attainment. EPA believes that this maintenance plan meets the requirements for approval under section 175A of the CAA for the reasons discussed below.

*a. What is required in 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 the Administrator approves a redesignation to attainment. Eight years after the redesignation, GA EPD must submit a revised maintenance plan which demonstrates that attainment will continue to be maintained for the 10 years following the initial 10-year period. To address the possibility of

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<sup>18</sup> See 2011 emissions inventory information available at <http://www3.epa.gov/ttn/chief/eiinformation.html>. Georgia also stated that the measure is not necessary for the continued maintenance of attainment in the Atlanta Area.

future NAAQS violations, the maintenance plan must contain such contingency measures, as EPA deems necessary, to assure prompt correction of any future 1997 Annual PM<sub>2.5</sub> violations. The Calcagni Memorandum provides further guidance on the content of a maintenance plan, explaining that a maintenance plan should address five requirements: the attainment emissions inventory, maintenance demonstration, monitoring, verification of continued attainment, and a contingency plan. As is discussed below, EPA proposes to find that GA EPD's maintenance plan includes all the necessary components and is thus proposing to approve it as a revision to the Georgia SIP.

*b. Attainment Emissions Inventory*

As noted earlier, EPA has previously determined that the Atlanta Area attained the 1997 Annual PM<sub>2.5</sub> NAAQS based on monitoring data for the 3-year period from 2008-2010. Today, EPA is proposing to determine that the Atlanta Area has continued to attain the 1997 Annual PM<sub>2.5</sub> NAAQS up to the most recent 3-year period quality-assured monitoring data, 2012-2014. In its maintenance plan, the State selected 2008 as the attainment emission inventory year. The attainment inventory identifies a level of emissions in the Area that is sufficient to attain the 1997 Annual PM<sub>2.5</sub> NAAQS. GA EPD began development of the attainment inventory by first generating a baseline emissions inventory for the Atlanta Area. As noted above, the year 2008 was chosen as the base year for developing a comprehensive emissions inventory for direct PM<sub>2.5</sub> and PM<sub>2.5</sub> precursors SO<sub>2</sub> and NO<sub>x</sub>. To support maintenance through 2024, Georgia prepared emissions projections for the years 2014, 2017, 2020, and 2024.

The emissions inventories are composed of four major types of sources: point, area, on-road mobile, and non-road mobile. With the exception of on-road emissions, Georgia obtained the 2008 base-year emissions inventory from the National Emissions Inventory 2008 Version 1.5 (<http://www3.epa.gov/ttnchie1/net/2008inventory.html>). Georgia used EPA's MOVES2010a mobile source emissions model to generate 2008 on-road mobile source emissions. The 2008 actual SO<sub>2</sub>, NO<sub>x</sub>, and PM<sub>2.5</sub> emissions for the Atlanta Area, as well as the emissions projections through 2024, were developed consistent with EPA guidance and are summarized in Tables 3.1 and 4 through 7.1 of the following subsection discussing the 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." Calcagni Memorandum, p. 9. Where the emissions inventory method of showing maintenance is used, the purpose is to show that emissions during the maintenance period will not increase over the attainment year inventory. Calcagni Memorandum, pp. 9–10.

As discussed in detail below, Georgia's maintenance plan submission expressly documents that the Area's overall emissions inventories will remain well below the attainment year inventories through 2024. Although the State's maintenance demonstration includes projected emissions reductions from Georgia Rules (sss) and (uuu), EPA believes the plan still demonstrates maintenance as discussed in the following subsection.

In addition, for the reasons set forth below, EPA believes that the Area will continue to maintain the 1997 Annual PM<sub>2.5</sub> NAAQS at least through 2025. Thus, if EPA finalizes its proposed approval of the redesignation request and maintenance plans in 2015, the approval will

be based upon this showing, in accordance with section 175A, and EPA’s analysis described herein, that the State’s maintenance plan provides for maintenance for at least ten years after redesignation.

*c. Maintenance Demonstration*

The August 30, 2012, submittal includes a maintenance demonstration for the Atlanta Area through 2024. This demonstration uses 2008 as the attainment year; identifies 2024 as the “out year;” and includes future emission inventory projections for point, area, on-road mobile, and non-road mobile sources in the Atlanta Area for 2014, 2017, 2020, and 2024 (see Tables 3-7, below). The emissions projections for 2014 and 2020 provide reference points for periodic assessment of maintenance of the NAAQS and were estimated using 2008 actuals and 2017 and 2024 projections. Appendix C of Georgia’s 2012 submittal describes the methodology used by the State to prepare the actual and projected emissions inventories.

The future emissions inventory projections in the State’s maintenance demonstration include reductions from the implementation of Georgia Rules (sss) and (uuu). However, as discussed above, these two State rules are not permanent and enforceable measures for the purposes of redesignation. EPA therefore recalculated the projected 2014, 2017, 2020, and 2024 point source emissions in the Atlanta Area by removing projected Rule (sss) and Rule (uuu) NO<sub>x</sub>, SO<sub>2</sub>, and PM<sub>2.5</sub> emissions reductions<sup>19</sup> and replacing these reductions with only those NO<sub>x</sub>, SO<sub>2</sub>, and PM<sub>2.5</sub> reductions from permanent and enforceable shutdowns at Plant Branch

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<sup>19</sup> Although, as discussed above, the NO<sub>x</sub> emission reductions associated with Rule (sss) are permanent and enforceable through CSAPR, EPA recalculated the projected point source emissions without anticipated Rule (sss) NO<sub>x</sub> reductions to generate a conservative maintenance demonstration.

Units 1 through 4 and Plant Yates Units 1 through 5 and from permanent and enforceable conversions from coal to natural gas at Plant Yates Units 6 and 7.<sup>20</sup> Georgia did not incorporate the emissions reductions resulting from these shutdowns and conversions in its maintenance demonstration because they were not anticipated by the State at the time of its 2012 submittal.

EPA removed the emissions reductions attributed to Georgia Rules (sss) and (uuu) from the State's emissions projections by assuming that NO<sub>x</sub>, SO<sub>2</sub>, and PM<sub>2.5</sub> emissions from EGUs in the Atlanta Area were not reduced through Rules (sss) and (uuu) after 2008 and added the reductions from the aforementioned shutdowns and conversions.<sup>21</sup> Table 2.1 identifies the EGU emissions included in the State's maintenance demonstration, and Table 2.2 identifies the EGU emissions included in EPA's recalculated point source emission projections for the Atlanta Area.

**Table 2.1 – EGU Emissions, Actual (2008) and Projected for the Atlanta Area (tons)**

<b>Pollutant</b>	<b>2008</b>	<b>2014</b>	<b>2017</b>	<b>2020</b>	<b>2024</b>
SO <sub>2</sub>	410,496	169,176	48,516	49,781	50,413
NO <sub>x</sub>	76,178	40,535	22,713	23,372	23,702
PM <sub>2.5</sub>	4,938	3,760	3,171	3,296	3,358

**Table 2.2 – EGU Emissions, Actual (2008) and Projected for the Atlanta Area, Revised to Include Only EGU Shutdowns and Natural Gas Conversions (tons)**

<b>Pollutant</b>	<b>2008</b>	<b>2014</b>	<b>2017</b>	<b>2020</b>	<b>2024</b>
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<sup>20</sup> Georgia Power retired Plant Branch Unit 2 in September 2013; retired Plant Branch Units 1, 3, and 4 and Plant Yates Units 1-5 in April 2015; and converted Plant Yates Units 6 and 7 from coal to natural gas in May 2015. Georgia Power certified under penalty of law that the retirements are permanent in Retired Unit Exemption (RUE) forms submitted to EPA under the Acid Rain, CAIR, and CSAPR programs. The Plant Yates retirements and conversions occurred through a Title V permit amendment effective on August 29, 2014. Yates Steam-Electric Generating Plant Part 70 Operating Permit Amendment No. 4911-077-0001-V-03-5. This Title V permit amendment and the RUE forms discussed above are included in the docket.

<sup>21</sup> EPA estimated the emissions reductions associated with Rules (sss) and (uuu) and with the shutdowns and conversions to natural gas using emissions projections provided by GA EPD on November 13, 2015. These projections are included in the docket for today's action.

SO <sub>2</sub>	410,496	294,859	237,040	243,210	246,294
NO <sub>x</sub>	76,177	58,173	49,171	50,519	51,193
PM <sub>2.5</sub>	4,937	4,724	4,618	4,781	4,862

Table 3.1 shows the 2008 actual point source emissions and the projected future year point source emissions in the Atlanta Area provided by the State in its 2012 submittal. Table 3.2 shows the 2008 actual point source emissions and projected future year point source emissions using EPA's EGU projections shown in Table 2.2, above.

**Table 3.1 – Point Source Emissions, Actual (2008) and Projected for the Atlanta Area (tons)**

<b>Pollutant</b>	<b>2008</b>	<b>2014</b>	<b>2017</b>	<b>2020</b>	<b>2024</b>
SO <sub>2</sub>	413,478	172,170	51,697	52,601	53,803
NO <sub>x</sub>	80,785	45,489	27,867	28,535	29,423
PM <sub>2.5</sub>	5,637	4,541	3,993	4,120	4,288

**Table 3.2 – Point Source Emissions, Actual (2008) and Projected for the Atlanta Area, Revised to Include Only EGU Shutdowns and Natural Gas Conversions (tons)**

<b>Pollutant</b>	<b>2008</b>	<b>2014</b>	<b>2017</b>	<b>2020</b>	<b>2024</b>
SO <sub>2</sub>	413,478	297,974	240,221	246,530	249,684
NO <sub>x</sub>	80,785	63,145	54,325	56,051	56,914
PM <sub>2.5</sub>	5,637	5,506	5,440	5,675	5,792

Tables 4 through 6 show the actual and projected non-point, on-road mobile, and non-road mobile source emissions for the Atlanta Area as provided in the State's 2012 submittal. These emissions are not impacted by Rules (sss) and (uuu) because these rules only apply to certain EGUs.

**Table 4 – Non-point Source Emission, Actual (2008) and Projected for the Atlanta Area (tons)**

<b>Pollutant</b>	<b>2008</b>	<b>2014</b>	<b>2017</b>	<b>2020</b>	<b>2024</b>
SO <sub>2</sub>	10,237	10,557	10,717	10,884	11,107
NO <sub>x</sub>	21,193	23,531	24,698	25,916	27,537
PM <sub>2.5</sub>	35,686	40,052	42,232	44,072	46,520

**Table 5 – On-road Mobile Source Emissions, Actual (2008) and Projected for the Atlanta Area (tons)**

<b>Pollutant</b>	<b>2008</b>	<b>2014</b>	<b>2017</b>	<b>2020</b>	<b>2024</b>
SO <sub>2</sub>	725	629	581	533	469
NO <sub>x</sub>	128,955	93,806	76,258	58,675	35,272
PM <sub>2.5</sub>	4,662	3,529	2,963	2,397	1,642

**Table 6 – Non-road Emissions, Actual (2008) and Projected for the Atlanta Area (tons)**

<b>Pollutant</b>	<b>2008</b>	<b>2014</b>	<b>2017</b>	<b>2020</b>	<b>2024</b>
SO <sub>2</sub>	1,675	1,516	1,437	1,553	1,708
NO <sub>x</sub>	40,599	34,086	30,835	29,747	28,298
PM <sub>2.5</sub>	2,827	2,360	2,127	1,967	1,755

Below, Table 7.1 shows the 2008 actual emissions from all source sectors and the projected future year emissions from all source sectors in the Atlanta Area provided by the State. Table 7.2 reflects EPA's revisions to the point-source emissions projections shown in Table 3.2, above.

**Table 7.1 – All Sector Emissions, Actual (2008) and Projected Emissions for the Atlanta Area (tons)**

<b>Pollutant</b>	<b>2008</b>	<b>2014</b>	<b>2017</b>	<b>2020</b>	<b>2024</b>
SO <sub>2</sub>	426,115	184,873	64,433	65,572	67,088
NO <sub>x</sub>	271,531	196,912	159,659	142,873	120,530
PM <sub>2.5</sub>	48,811	50,482	51,316	52,556	54,205

**Table 7.2 – All Sector Emissions, Actual (2008) and Projected Emissions for the Atlanta Area, Revised with EPA’s Point-Source Emissions Projections (tons)<sup>22</sup>**

<b>Pollutant</b>	<b>2008</b>	<b>2014</b>	<b>2017</b>	<b>2020</b>	<b>2024</b>
SO <sub>2</sub>	426,115	310,677	252,957	257,248	262,969
NO <sub>x</sub>	271,531	214,589	186,117	173,715	157,179
PM <sub>2.5</sub>	48,811	51,446	52,763	54,299	56,348

The results of EPA’s analysis, shown in Table 7.2, show that future emissions for NO<sub>x</sub> and SO<sub>2</sub> are expected to be well below 2008 “attainment level” emissions without Georgia Rules (sss) and (uuu), while direct PM<sub>2.5</sub> emissions are expected to increase slightly. In situations where local emissions are the primary contributor to nonattainment, such as the Atlanta Area, if the future projected emissions in the nonattainment area remain at or below the baseline emissions in the nonattainment area, then the ambient air quality standard should not be exceeded in the future. As explained below, EPA proposes to find that the overall emission projections illustrate that the Atlanta Area is expected to continue to attain the 1997 PM<sub>2.5</sub> NAAQS through 2025. Moreover, as noted earlier, the Atlanta Area was identified in EPA’s federal interstate transport rulemakings—CAIR and CSAPR—as an area that was projected to have problems with nonattainment and maintenance of the 1997 PM<sub>2.5</sub> NAAQS due to transported pollution from other states. Continued implementation of CSAPR in the vast majority of those upwind states will also help the Atlanta Area maintain the standard.

As shown in Table 7.2, EPA projects that SO<sub>2</sub> and NO<sub>x</sub> emissions will decline by approximately 38 percent and 42 percent, respectively, from 2008 to 2024 without Georgia Rules

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<sup>22</sup> The revised emission projections reflect no emission reductions from EGUs beyond 2008 other than the permanent and enforceable emission reductions that have occurred due to the shutdowns and conversions identified above.



(sss) and (uuu). This decrease is due to the implementation of Federal controls during the first half of the maintenance period and to the permanent and enforceable shutdowns and conversions discussed above. Emissions of PM<sub>2.5</sub> are expected to increase by approximately 15.4 percent (7,537 tons) from 2008 through 2024 due to projected increases in non-point source PM<sub>2.5</sub> emissions. Therefore, EPA further evaluated whether the increase in PM<sub>2.5</sub> emissions, in combination with the decreases in SO<sub>2</sub> and NO<sub>x</sub> emissions, would provide for maintenance of the standard.

Because the relationship between pollutant emissions and ambient air quality is different for each of the three pollutants, the changes in emissions for each pollutant must be weighted according to the air quality impact of each pollutant. To evaluate this relationship, the State examined speciation data available from the EPA Air Explorer Website for 2007 – 2009 for the DeKalb County monitor (13-089-0002). The 3-year average of this data suggests that ambient PM<sub>2.5</sub> in Atlanta consists of approximately 40.7 percent sulfate; 1.2 percent nitrate; 50.1 percent organic particulate matter (which consists of directly-emitted primary organic matter and atmospherically formed secondary organic aerosol); 4.2 percent miscellaneous inorganic particulate matter; and 3.7 percent other types of particulate matter. Therefore, using a conservative assumption that all of the organic particulate matter is primary organic matter, the direct PM<sub>2.5</sub> species make up approximately 54.3 percent of the total ambient PM<sub>2.5</sub>.

A conservative approach assumes the full ambient concentration of organic particulate matter plus miscellaneous inorganic particulate matter will vary in accordance with changes in total nonattainment area emissions of direct PM<sub>2.5</sub>. This analysis thus assumes that the component of ambient PM<sub>2.5</sub> attributable to direct PM<sub>2.5</sub> species will increase by the same

percentage as the percentage increase in direct PM<sub>2.5</sub> emissions projected for the Atlanta Area (i.e., 15.4 percent). The baseline concentration is conservatively assumed to be 15.0 µg/m<sup>3</sup>, and direct PM<sub>2.5</sub> is estimated to contribute 54.3 percent, or 8.1 µg/m<sup>3</sup>, of that baseline. Thus, a 15.4 percent increase in the 8.1 µg/m<sup>3</sup> of the direct PM<sub>2.5</sub> component would suggest a resulting 1.2 µg/m<sup>3</sup> increase in the ambient concentration. As discussed earlier, the highest 2008-2010 design value for the Atlanta Area was 13.6 µg/m<sup>3</sup> (with data substitution) and the 2011-2014 design value is 11.1 µg/m<sup>3</sup> (with data substitution). Thus, even if the design value were to increase by 1.2 µg/m<sup>3</sup>, the standard of 15 µg/m<sup>3</sup> would still be met. Furthermore, the projected increase in direct PM<sub>2.5</sub> emissions (approximately 7,537 tons) will be at least partially, if not fully, offset by a significant decrease in sulfate and nitrate emissions, resulting in a continued decrease in the PM<sub>2.5</sub> design values in the Atlanta Area. As shown in Table 7.2, EPA expects that, at a minimum, SO<sub>2</sub> and NO<sub>x</sub> emissions will decrease by approximately 163,146 tons and 114,352 tons, respectively, from 2008 through 2024.

A maintenance plan requires the state to show that projected future year overall emissions will not exceed the level of emissions which led the Area to attain the NAAQS. For the reasons discussed above, EPA believes that the projected emissions demonstrate that the Atlanta Area will continue to attain for the duration of the maintenance plan.

While GA EPD's maintenance plan projects maintenance of the 1997 Annual PM<sub>2.5</sub> NAAQS through 2024, as noted above, EPA believes that the Atlanta Area will continue to maintain the standard at least through the year 2025 for several reasons: all of the federal regulatory requirements that enabled the Area to attain the NAAQS will continue to be in effect and enforceable after the 10-year maintenance period; the most recent maximum potential annual

PM<sub>2.5</sub> design value (for the period 2012 to 2014) for the Area, 11.1 µg/m<sup>3</sup>,<sup>23</sup> is well below the standard of 15.0 µg/m<sup>3</sup>; and overall emissions are projected to decline significantly through 2024. Because it is highly improbable that emissions will suddenly increase after 2024 and exceed attainment year inventory levels in 2025, EPA expects the projected downward trend in pollutant emissions in the Atlanta Area to continue to demonstrate maintenance of the 1997 PM<sub>2.5</sub> NAAQS through at least the year 2025.

*d. Monitoring Network*

There are currently seven monitors measuring ambient PM<sub>2.5</sub> in the Atlanta Area. GA EPD has committed to continue operation of the monitors in the Atlanta Area in compliance with 40 CFR part 58 and have thus addressed the requirement for monitoring. EPA approved Georgia's 2014 monitoring plan on November 7, 2014.

*e. Verification of Continued Attainment*

The State of Georgia, through the GA EPD, has the legal authority to enforce and implement the requirements of the Atlanta Area 1997 Annual PM<sub>2.5</sub> maintenance plan. This includes the authority to adopt, implement, and enforce any subsequent emissions control contingency measures determined to be necessary to correct future PM<sub>2.5</sub> attainment problems.

GA EPD will track the progress of the maintenance plan by performing future reviews of triennial emission inventories for the Atlanta Area as required in the Air Emissions Reporting

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<sup>23</sup> As noted earlier, due to incomplete data at one monitoring site during the third quarter of 2012, EPA conducted a statistical analysis to determine a maximum potential design value of 11.1 µg/m<sup>3</sup> for the period 2012 to 2014. The analysis is described in detail in the monitoring TSD included in the docket for this rulemaking.

Rule (AERR) and Consolidated Emissions Reporting Rule (CERR). For these periodic inventories, GA EPD will review the assumptions made for the purpose of the maintenance demonstration concerning projected growth of activity levels. If any of these assumptions appear to have changed substantially, then GA EPD will re-project emissions for the Atlanta Area.

*f. Contingency Measures in the Maintenance Plan.*

Section 175A of the CAA requires that a maintenance plan include such contingency measures as EPA deems necessary to assure that the state will promptly correct a violation of the NAAQS that occurs after redesignation. The maintenance plan should identify the contingency measures to be adopted, a schedule and procedure for adoption and implementation, and a time limit for action by the State. A state should also identify specific indicators to be used to determine when the contingency measures need to be implemented. The maintenance plan must include a requirement that a state will implement all measures with respect to control of the pollutant that were contained in the SIP before redesignation of the area to attainment in accordance with section 175A(d).

The contingency measures included in Georgia's maintenance plan for the Atlanta Area include a triggering mechanism to determine when contingency measures are needed and a process of developing and implementing appropriate control measures. GA EPD will use actual ambient monitoring data to determine whether a trigger event has occurred and when contingency measures should be implemented. Georgia's trigger mechanisms include two tiers: Tier I and Tier II.

A Tier I trigger is activated when any of the following conditions occurs:

- The previous calendar year's annual average PM<sub>2.5</sub> concentration exceeds the standard by 1.5 µg/m<sup>3</sup> or more;
- The annual mean PM<sub>2.5</sub> concentration in each of the previous two consecutive calendar years exceeds the NAAQS by 0.5 µg/m<sup>3</sup> or more;
- The total maintenance area SO<sub>2</sub> emissions in the most recent NEI exceeds the corresponding attainment-year inventory by more than 10.0 percent;
- The total maintenance area PM<sub>2.5</sub> emissions in the most recent NEI exceed the corresponding attainment-year inventory by more than 30.0 percent.

A Tier II trigger is activated when any violation of the 1997 Annual PM<sub>2.5</sub> NAAQS at any federal reference method (FRM) monitor in the Atlanta maintenance area is recorded, based on quality-assured monitoring data.

In the event of either a Tier I or Tier II trigger, GA EPD will conduct a comprehensive study as expeditiously as practicable, but no later than nine months after the trigger is activated. GA EPD will evaluate a Tier I condition, if it occurs, to determine the causes of the ambient PM<sub>2.5</sub> or emissions inventory increase and to determine if a Tier II condition is likely to occur. GA EPD will evaluate a Tier I condition, if it occurs, to determine the cause of the trigger and determine if the cause(s) of the ambient PM<sub>2.5</sub> increase and to determine if the increase is likely to continue. Through the comprehensive study, GA EPD will attempt to determine whether the trigger condition is due to local emissions, emissions from elsewhere, or a combination of these. The study will also include a determination regarding the emissions control measures that may be necessary to prevent or correct a violation of the NAAQS.

GA EPD will implement any required measures as expeditiously as practicable, taking into consideration the ease of implementation and the technical and economic feasibility of selected measures. Previously adopted controls, which have not yet realized emission reductions and which are not relied upon in the maintenance demonstration, will be implemented within 24 months from trigger activation.<sup>24</sup> If the study determines that such previously adopted emission control programs are not sufficient to address any violation of the NAAQS, EPD will adopt additional rules or controls to require further emission reductions. Any additional rules or controls to address a violation would be adopted and implemented within 24 months of trigger activation and will be submitted to EPA for approval into Georgia's SIP.

In any event, if a Tier II trigger is activated, EPD will consult and seek review from EPA on the analysis to determine the cause of the violation. The contingency measure(s) will be selected from the following types of emission controls or from any other control deemed appropriate and effective at the time the selection is made by EPD:

- RACM for sources of SO<sub>2</sub> and PM<sub>2.5</sub>;
- Reasonably Available Control Technologies (RACT) for point sources of SO<sub>2</sub> and PM<sub>2.5</sub>;
- Expansion of RACM/RACT to areas of transport within the State;
- Mobile source measures; and
- Additional SO<sub>2</sub> and/or PM<sub>2.5</sub> reduction measures yet to be identified.

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<sup>24</sup> In a September 23, 2013, letter to EPA, the State clarified the timing and content of its contingency measures included in the maintenance plan for the Atlanta Area. In this letter, the State reaffirmed its commitment to address and correct any violation of the 1997 annual PM<sub>2.5</sub> NAAQS as expeditiously as practicable and to do so no later than 24 months from the trigger activation.

In addition to the triggers indicated above, Georgia will monitor regional emissions through the CERR and AERR and compare them to the projected inventories and the attainment year inventory. In the August 30, 2012, submittal, the State acknowledges that the contingency plan requires the implementation of all measures contained in the SIP for the Area prior to redesignation. The State also notes that these measures are currently in effect and may be evaluated by the State to determine if they are adequate or up-to-date.

EPA has preliminarily concluded that the maintenance plan adequately addresses the five basic components required: the attainment emissions inventory, maintenance demonstration, monitoring, verification of continued attainment, and a contingency plan. Therefore, the maintenance plan SIP revision submitted by GA EPD for the Atlanta Area meets the requirements of section 175A of the CAA and is approvable.

## **VI. What is the effect of the January 4, 2013, D.C. Circuit Decision Regarding PM<sub>2.5</sub> Implementation under Subpart 4?**

### *a. Background*

As discussed in Section II of this notice, the D.C. Circuit remanded the 1997 PM<sub>2.5</sub> Implementation Rule to EPA on January 4, 2013, in *Natural Resources Defense Council v. EPA*, 706 F.3d 428. The Court found that EPA erred in implementing the 1997 PM<sub>2.5</sub> NAAQS

pursuant to the general implementation provisions of subpart 1 of part D of Title I of the CAA rather than the particulate matter-specific provisions of subpart 4 of part D of Title I.

For the purposes of evaluating Georgia's redesignation request for the Atlanta 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 CAA section 107(d)(3)(E), and thus EPA is not required to consider subpart 4 requirements with respect to the redesignation of the Atlanta 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* "Procedures for Processing Requests to Redesignate Areas to Attainment," Memorandum from John Calcagni, Director, Air Quality Management Division, September 4, 1992 (Calcagni memorandum). *See also* "State Implementation Plan (SIP) Requirements for Areas Submitting Requests for the plan and Redesignation to Attainment of the Ozone and Carbon Monoxide (CO) National Ambient Air Quality Standards (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 already implemented or due at the time of attainment”).<sup>25</sup> In this case, at the time that Georgia submitted its redesignation request on August 30, 2012, requirements under subpart 4 were not due, and indeed, were not yet known to apply.

On June 2, 2014, EPA published a rule entitled “Identification of Nonattainment Classification and Deadlines for Submission of State Implementation Plan (SIP) Provisions for the 1997 Fine Particle (PM<sub>2.5</sub>) National Ambient Air Quality Standard (NAAQS) and 2006 PM<sub>2.5</sub> NAAQS” (“Classification and Deadlines Rule”). 79 FR 31,566.<sup>26</sup> In that rule, the Agency responded to the D.C. Circuit’s January 2013 decision by establishing classifications for PM<sub>2.5</sub> nonattainment areas under subpart 4, and by establishing a new SIP submission date of December 31, 2014, for moderate area attainment plans and for any additional attainment-related or nonattainment new source review plans necessary for areas to comply with the requirements applicable under subpart 4. *Id.* at 31,567-70. Therefore, when Georgia submitted its request in August 2012, the deadline for submitting a SIP to meet the Act’s subpart 4 requirements had not yet passed, and those requirements are therefore not applicable for purposes of evaluating Georgia’s request for redesignation.

*b. Subpart 4 Requirements and the Atlanta Area Redesignation Request*

Even though the substantive requirements of subpart 4 were not applicable requirements that Georgia was required to have met at the time of its redesignation request submission, EPA

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<sup>25</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.

<sup>26</sup> Judicial review of EPA’s Classification and Deadlines Rule is pending in the D.C. Circuit. At the time of this notice, briefing and oral arguments in that case have concluded but a decision has not yet been issued by the Court. *See WildEarth Guardians v. EPA*, No. 14-1145 (D.C. Circuit, argued November 6, 2015).

believes that even the imposition of those substantive requirements would not pose a bar to the redesignation of the Atlanta Area. The additional requirements found in subpart 4 are either designed to help an area achieve attainment (also known as “attainment planning requirements”) or are related to new source permitting. None of these additional requirements are applicable for purposes of evaluating a redesignation from nonattainment to attainment under EPA’s long-standing interpretation of CAA section 107(d)(3)(E)(ii) and (v).

As background, 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 PM<sub>10</sub><sup>27</sup> nonattainment areas, and under the Court’s January 4, 2013, decision in *NRDC v. EPA*, these same statutory requirements also apply for PM<sub>2.5</sub> nonattainment areas.<sup>28</sup> In the General Preamble, EPA’s longstanding general guidance interpreting the 1990 amendments to the CAA,<sup>29</sup> EPA discussed the relationship of subpart 1 and subpart 4 SIP requirements and pointed out that subpart 1 requirements were to an extent “subsumed by, or integrally related to, the more specific PM-10 requirements.” *See* 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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<sup>27</sup> PM<sub>10</sub> refers to particles nominally 10 micrometers in diameter or smaller.

<sup>28</sup> In explaining their decision, the court reasoned that the plain meaning of the CAA requires implementation of the 1997 PM<sub>2.5</sub> NAAQS under subpart 4 because PM<sub>2.5</sub> particles fall within the statutory definition of PM<sub>10</sub> and are thus subject to the same statutory requirements. The EPA has proposed its interpretation of subpart 4 requirements as applied to the PM<sub>2.5</sub> NAAQS in its proposal rule entitled “Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements” (80 FR 15340, March 23, 2015).

As noted above, in the Classification and Deadlines Rule, EPA initially classified all areas designated nonattainment for either the 1997 or the 2006 PM<sub>2.5</sub> NAAQS as “moderate” nonattainment areas. Additional requirements that would apply to the Atlanta Area as a moderate nonattainment area are therefore Sections 189(a) and (c), including 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)).<sup>30</sup>

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<sub>10</sub>, 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.<sup>31</sup> In any event, in the context of redesignation, EPA has long relied on the interpretation that a fully approved nonattainment new source review program is not considered an applicable requirement for redesignation, provided the area can maintain the standard with a 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 New Source Review Requirements for Areas Requesting Redesignation to Attainment.” *See also* rulemakings for Detroit, Michigan (60 FR 12467-12468,

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<sup>30</sup> EPA’s proposed implementation rule (80 FR 15340 (March 23, 2015)) includes, among other things, the Agency’s proposed interpretation of these moderate area requirements for purposes of PM<sub>2.5</sub> NAAQS implementation.

<sup>31</sup> The potential effect of section 189(e) on section 189(a)(1)(A) for purposes of evaluating this redesignation is discussed below.

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,<sup>32</sup> EPA applies the same interpretation that it applies to attainment planning requirements under subpart 1 or any of other pollutant-specific subparts. That is, under its long-standing interpretation of the CAA, where an area is already attaining the standard, EPA does not consider those attainment-planning requirements to be applicable for purposes of evaluating a request for redesignation because requirements that are designed to help an area achieve attainment no longer have meaning where an area is already meeting the standard.

Thus, at the time of Georgia's submission of its redesignation request, the requirement for the Atlanta Area to comply with subpart 4 had not yet come due and was, therefore, not applicable for purposes of EPA's evaluation of the redesignation. Moreover, even if Georgia had been required to comply with those subpart 4 requirements, the additional substantive requirements for a moderate nonattainment area under subpart 4 were not applicable for purposes of redesignation anyway, given EPA's long-standing interpretation of the applicability of certain requirements to areas that are attaining the NAAQS.

c. *Subpart 4 and Control of PM<sub>2.5</sub> Precursors*

As noted previously, EPA does not believe that the requirement to comply with subpart 4 applied to the Atlanta Area redesignation request because that request was submitted prior to the

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<sup>32</sup> These planning requirements include the attainment demonstration, quantitative milestone requirements, and RACM analysis.

moderate area SIP submission date of December 31, 2014. However, even if the requirements of subpart 4 were to apply to the Atlanta Area, EPA nevertheless believes that the additional requirements of subpart 4 would not pose an obstacle to our approval of Georgia's request to redesignate the Atlanta Area. Specifically, EPA proposes to determine that, because the Atlanta Area is attaining the standard, no additional controls of any PM<sub>2.5</sub> precursors would be required. 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. Relevant precursors to PM<sub>2.5</sub> pollution include SO<sub>2</sub>, NO<sub>x</sub>, VOC and ammonia. Moreover, CAA section 189(e) in subpart 4 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."

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 ammonia and VOC. Thus, assuming subpart 4 requirements are applicable for purposes of evaluating this redesignation request, EPA is analyzing here whether additional controls of ammonia and VOC from major stationary sources are required under section 189(e) of subpart 4 in order to redesignate the area for the 1997 PM<sub>2.5</sub> standard. As explained below, EPA does not believe that any additional controls of ammonia and VOC are required in the context of this redesignation.

In the General Preamble, EPA discusses its approach to implementing section 189(e). *See* 57 FR 13538 (April 16, 1992). With regard to precursor regulation under section 189(e), the

General Preamble explicitly stated that control of VOCs under other Act 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 proposes to determine that even if not explicitly addressed by the State in its submission, the State does not need to take further action with respect to ammonia and VOCs as precursors to satisfy the requirements of section 189(e). This proposed determination is based on our findings that: (1) the Atlanta Area contains only one major stationary source of ammonia (Owens Corning, Fairburn Plant), and (2) existing major stationary sources of VOC are adequately controlled under other provisions of the CAA regulating the ozone NAAQS.<sup>33</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 PM<sub>2.5</sub> standard, at present ammonia and VOC precursors from major stationary sources do not contribute significantly to levels exceeding the 1997 PM<sub>2.5</sub> standard in the Atlanta Area. *See* 57 FR 13539.

As noted earlier, EPA determined in December 2011 that the Atlanta Area was attaining the 1997 Annual PM<sub>2.5</sub> NAAQS and that the Area had attained the NAAQS by the applicable attainment date of April 5, 2010. 76 FR 76620. Under EPA's regulations, a determination of attainment, also known as a clean data determination, suspends the CAA's requirements to submit an attainment demonstration, including an analysis of reasonably available control measures and control technology; reasonable further progress; and contingency measures. Under subpart 4, Georgia's plan for attaining the 1997 PM<sub>2.5</sub> NAAQS in the Atlanta Area would have had to consider all PM<sub>2.5</sub> precursors, including VOC and ammonia, and whether there were

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<sup>33</sup> The Atlanta Area has reduced VOC emissions through the implementation of various control programs including various on-road and non-road motor vehicle control programs.

control measures, including for existing sources under section 189(e), available that would have advanced the area's attainment goals. However, because the Atlanta Area has already attained the 1997 PM<sub>2.5</sub> NAAQS, the state's requirement to submit a plan demonstrating how the area would attain has been suspended, and, moreover, the area has shown that it has attained with its current approach to regulation of PM<sub>2.5</sub> precursors. Therefore, EPA believes that it is reasonable to conclude in the context of this redesignation that there is no need to revisit the attainment control strategy with respect to the treatment of precursors. In addition, as noted below, EPA has analyzed projections of VOC and ammonia emissions in the area and has determined that VOC emissions are projected to decrease sharply over the maintenance period and ammonia emissions, which are emitted in marginal amounts in the Atlanta area, are projected to increase only slightly. Accordingly, EPA does not view the January 4, 2013, decision of the Court as precluding redesignation of the Atlanta Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS. In sum, even if Georgia were required to address precursors for the Atlanta Area under subpart 4 rather than under subpart 1, 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).

*d. Maintenance Plan and Evaluation of Precursors*

EPA proposes to determine that the State's maintenance plan shows continued maintenance of the standard by tracking the levels of the precursors whose control brought about attainment of the 1997 PM<sub>2.5</sub> standard in the Atlanta Area. EPA therefore believes that the only

additional consideration related to the maintenance plan requirements that results from the Court's January 4, 2013, decision is that of assessing the potential role of VOC and ammonia in demonstrating continued maintenance in this Area. As explained below, based upon documentation provided by Georgia and supporting information, EPA believes that the maintenance plan for the Atlanta Area need not include any additional emission reductions of VOC or ammonia in order to provide for continued maintenance of the standard.

First, as noted above in EPA's discussion of section 189(e), VOC emission levels in this area have historically been well-controlled under SIP requirements related to ozone and other pollutants. Second, total ammonia emissions throughout the Atlanta Area are projected to be approximately 13,620 tons per year in 2020. *See* Table 8 below. This amount of ammonia emissions is relatively low in comparison to the total amounts of SO<sub>2</sub>, NO<sub>x</sub>, and even direct PM<sub>2.5</sub> emissions from sources in the Area. Third, as described below, available information shows that no precursor, including VOC and ammonia, is expected to increase significantly over the maintenance period so as to interfere with or undermine the State's maintenance demonstration.

The emissions inventories used in the regulatory impact analysis (RIA) for the 2012 PM<sub>2.5</sub> NAAQS, included in the docket for today's action, show that VOC emissions are projected to decrease by 52,813.38 tpy and that ammonia emissions are projected to increase by 91.89 tpy in the Area between 2007 and 2020. *See* Table 8, below. Thus, emissions of VOC are projected to decrease by 30 percent, and emissions of ammonia are projected to remain about the same, increasing by less than one percent.



**Table 8 – Comparison of 2007 and 2020 VOC and Ammonia Emission Totals by Source Sector (tpy) for the Area<sup>34</sup>**

Source Sector	VOC			Ammonia		
	2007	2020	Net Change	2007	2020	Net Change
<b>Nonpoint</b>	76,274.51	74,736.27	-1,538.24	10,220.59	11,535.64	1,315.05
<b>Non-road</b>	28,433.41	16,376.46	-12,056.95	31.17	38.96	7.79
<b>Onroad</b>	64,157.97	25,202.79	-38,955.18	2587.41	1570.67	-1,016.74
<b>Point</b>	6,639.28	6,376.27	-263.01	689.03	474.82	-214.21
<b>Total</b>	175,505.17	122,691.79	-52,813.38	13,528.20	13,620.09	91.89

While the RIA emissions inventories are only projected out to 2020, there is no reason to believe that this overall downward trend would not continue through 2025. Given that the Atlanta Area is already attaining the 1997 Annual PM<sub>2.5</sub> NAAQS even with the current level of emissions from sources in the Area, the overall trend of emissions inventories is consistent with continued attainment.

In addition, available air quality data and modeling analyses show continued maintenance of the standard during the maintenance period. As noted in section V, above, the Atlanta Area recorded a maximum potential annual PM<sub>2.5</sub> design value of 11.1 µg/m<sup>3</sup> during 2012-2014, the most recent three years available with quality-assured and certified ambient air monitoring data. This is well below the 1997 Annual PM<sub>2.5</sub> NAAQS of 15 µg/m<sup>3</sup>. Moreover, the modeling analysis conducted for the RIA for the 2012 PM<sub>2.5</sub> NAAQS indicates that the design value for this area is expected to continue to decline through 2020. In the RIA analysis, the 2020 modeled design value for the Atlanta Area is 9.4 µg/m<sup>3</sup>. Given the decrease in overall precursor

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<sup>34</sup> These emissions estimates were taken from the emissions inventories developed for the regulatory impact analysis for the 2012 PM<sub>2.5</sub> NAAQS.

emissions projected through 2024, and expected through 2025, it is reasonable to conclude that the monitored PM<sub>2.5</sub> concentration in this area will also continue to decrease through 2025.

Thus, EPA believes that there is ample justification to conclude that the Atlanta Area should be redesignated, even taking into consideration the emissions of VOC and ammonia potentially relevant to PM<sub>2.5</sub>. After consideration of the D.C. Circuit's January 4, 2013, decision, and for the reasons set forth in this notice, EPA continues to propose approval of the State's maintenance plan and its request to redesignate the Atlanta Area to attainment for the 1997 Annual PM<sub>2.5</sub> NAAQS.

## **VII. What is EPA's Analysis of Georgia's Proposed NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for the Atlanta Area?**

Under section 176(c) of the CAA, new transportation plans, programs, and projects, such as the construction of new highways, must "conform" to (i.e., be consistent with) the part of the state's air quality plan that addresses pollution from cars and trucks. Conformity to the SIP means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS or any interim milestones. If a transportation plan does not conform, most new projects that would expand the capacity of roadways cannot go forward. Regulations at 40 CFR part 93 set forth EPA policy, criteria, and procedures for demonstrating and assuring conformity of such transportation activities to a SIP. The regional emissions analysis is one, but not the only, requirement for implementing transportation conformity. Transportation conformity is a requirement for nonattainment and maintenance areas. Maintenance areas are areas that were previously nonattainment for a

particular NAAQS but have since been redesignated to attainment with an approved maintenance plan for that NAAQS.

Under the CAA, states are required to submit, at various times, control strategy SIPs and maintenance plans for nonattainment areas. These control strategy SIPs (including RFP and attainment demonstration) and maintenance plans create MVEBs for criteria pollutants and/or their precursors to address pollution from cars and trucks. Per 40 CFR part 93, a MVEB must be established for the last year of the maintenance plan. A state may adopt MVEBs for other years as well. A MVEB is the portion of the total allowable emissions in the maintenance demonstration that is allocated to highway and transit vehicle use and emissions. *See* 40 CFR 93.101. The MVEBs serve as a ceiling on emissions from an area's planned transportation system. The MVEBs concept is further explained in the preamble to the November 24, 1993, Transportation Conformity Rule. *See* 58 FR 62188. The preamble also describes how to establish the MVEBs in the SIP and how to revise the MVEBs.

After interagency consultation with the transportation partners for the Atlanta Area, Georgia has elected to develop MVEBs for NO<sub>x</sub> and PM<sub>2.5</sub> for the entire Area. Georgia has developed these MVEBs, as required, for the last year of its maintenance plan, 2024. The NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs were developed in consultation with the transportation partners and were added to account for uncertainties in population growth, changes in model vehicle miles traveled and new emission factor models. Further details are provided below to explain how the MVEBs for 2024 were derived.

The State estimated the worst case daily motor vehicle projections for NO<sub>x</sub> and PM<sub>2.5</sub> in 2024 and set the MVEBs at this level. The worst-case daily motor vehicle emissions projection

for PM<sub>2.5</sub> is 2,281 tons (38.9 percent above the projected 2024 on-road emissions), and the worst-case daily motor vehicle emissions projection for NO<sub>x</sub> is 44,430 tons (26 percent above the projected 2024 on-road emissions). The proposed NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for the Atlanta Area are identified in Table 9, below. On-road emissions of SO<sub>2</sub> are considered de minimis; therefore, no budget for SO<sub>2</sub> is required. *See* 70 FR 24280, 24283 (May 6, 2005).

**Table 9 – Proposed Atlanta Area NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs (tpy)**

	<b>NO<sub>x</sub></b>	<b>PM<sub>2.5</sub></b>
2024 On-Road Mobile Emissions	35,272	1,642
2024 Safety Margin Allocated	9,158	-
<b>2024 Total Motor Vehicle Budget</b>	44,430	2,281

The 9,158 ton difference in the NO<sub>x</sub> projections is well within the NO<sub>x</sub> “safety margin.”<sup>35</sup> Under 40 CFR 93.101, the term “safety margin” is the difference between the attainment level (from all sources) and the projected level of emissions (from all sources) in the maintenance plan. The safety margin can be allocated to the transportation sector; however, the total emissions must remain below the attainment level.

Although there is no apparent safety margin for PM<sub>2.5</sub> because overall emissions of direct PM<sub>2.5</sub> from all source categories are projected to increase by approximately 15 percent from 2008 to 2024 (see Table 7.2), the on-road mobile NO<sub>x</sub> and PM<sub>2.5</sub> emissions are projected to decrease by approximately 72 percent and 65 percent, respectively (see Table 5) due to the federal mobile source measures discussed in Section V. Table 10, below, shows that the

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<sup>35</sup> The difference between the 2024 NO<sub>x</sub> emissions projected by EPA and 2008 actual NO<sub>x</sub> emissions (i.e., NO<sub>x</sub> safety margin) is approximately 114,352 tons.

percentage of the PM<sub>2.5</sub> on-road mobile source emissions as compared to the overall PM<sub>2.5</sub> emissions from all sectors trends downward from 9.6 percent in 2008 to 3.0 percent in 2024.

**Table 10 – PM<sub>2.5</sub> On-road Mobile Sources Emissions Comparison to the Total PM<sub>2.5</sub> Emissions From All Sectors for the Atlanta Area (tons per year)**

	<b>2008</b>	<b>2014</b>	<b>2017</b>	<b>2020</b>	<b>2024</b>
<b>PM<sub>2.5</sub> emissions – on-road mobile</b>	4,662	3,529	2,963	2,397	1,642
<b>Total PM<sub>2.5</sub> emissions – all sectors</b>	48,811	51,256	52,478	54,285	55,188
<b>On-road mobile % of total PM<sub>2.5</sub> emissions</b>	9.6	6.9	5.7	4.4	3.0

As discussed in Section V, EPA believes that Area will maintain the NAAQS through 2025 and that the impact of the projected increase in PM<sub>2.5</sub> emissions will be overcompensated by the projected decreases in the emissions of SO<sub>2</sub> and NO<sub>x</sub>. Furthermore, even if mobile source emissions are equal to the worst-case scenario MVEBs in 2024, the Atlanta Area will maintain the PM<sub>2.5</sub> standard. Applying the projected 15 percent increase in direct PM<sub>2.5</sub> emissions to the proposed 2024 MVEB (2,281 tpy) yields a value of 2,623 tpy which is 44 percent less than the 2008 attainment level of on-road mobile emissions (4,662 tpy).

Through this rulemaking, EPA is proposing to approve the MVEBs for NO<sub>x</sub> and PM<sub>2.5</sub> for 2024 for the Atlanta Area because EPA has determined that the Area maintains the 1997 Annual PM<sub>2.5</sub> NAAQS with the emissions at the levels of the budgets. Once the MVEBs for the Atlanta Area are approved or found adequate (whichever is completed first), they must be used for future conformity determinations. After thorough review, EPA has determined that the budgets meet the adequacy criteria, as outlined in 40 CFR 93.118(e)(4). Therefore, EPA is proposing to approve the budgets because they are consistent with maintenance of the 1997 Annual PM<sub>2.5</sub> NAAQS through 2024.

### **VIII. What is the Status of EPA’s Adequacy Determination for the Proposed NOx and PM<sub>2.5</sub> MVEBs for 2024 for the Atlanta Area?**

When reviewing submitted “control strategy” SIPs or maintenance plans containing MVEB, EPA may affirmatively find the MVEB contained therein adequate for use in determining transportation conformity. Once EPA affirmatively finds the submitted MVEB is adequate for transportation conformity purposes, that MVEBs must be used by state and federal agencies in determining whether proposed transportation projects conform to the SIP as required by section 176(c) of the CAA.

EPA’s substantive criteria for determining adequacy of MVEBs are set out in 40 CFR 93.118(e)(4). The process for determining adequacy consists of three basic steps: public notification of a SIP submission, a public comment period, and EPA’s adequacy determination. This process for determining the adequacy of submitted MVEBs for transportation conformity purposes was initially outlined in EPA’s May 14, 1999, guidance entitled “Conformity Guidance on Implementation of March 2, 1999, Conformity Court Decision.” EPA adopted regulations to codify the adequacy process in rulemaking entitled “Transportation Conformity Rule Amendments for the New 8-Hour Ozone and PM<sub>2.5</sub> National Ambient Air Quality Standards and Miscellaneous Revisions for Existing Areas; Transportation Conformity Rule Amendments: Response to Court Decision and Additional Rule Changes”; July 1, 2004 (69 FR 40004). Additional information on the adequacy process for transportation conformity purposes is

available in the proposed rule entitled “Transportation Conformity Rule Amendments: Response to Court Decision and Additional Rule Changes”; June 30, 2003 (68 FR 38974, 38984).

As discussed earlier, Georgia’s maintenance plan submission includes NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for the Atlanta Area for 2024, the last year of the maintenance plan. EPA reviewed the NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs through the adequacy process, and the adequacy of the MVEBs was open for public comment on EPA’s adequacy web site on February 21, 2013, found at:

<http://www.epa.gov/otaq/stateresources/transconf/currships.htm>. The EPA public comment period on adequacy for the MVEBs for 2024 for Atlanta Area closed on March 25, 2013. EPA did not receive any comments on the adequacy of the MVEBs, nor did EPA receive any requests for the SIP submittal.

EPA intends to make its determination on the adequacy of the 2024 MVEBs for the Atlanta Area for transportation conformity purposes in the near future by completing the adequacy process that was started on February 21, 2013. After EPA finds the 2024 MVEBs adequate under 40 CFR 93.118(f)(1)(iv) or takes final action to approve them into the Georgia SIP under 40 CFR 93.118(f)(2)(iii), the new MVEBs for NO<sub>x</sub> and PM<sub>2.5</sub> must be used for future transportation conformity determinations. For required regional emissions analysis years that involve 2024 or beyond, the applicable budgets will be the new 2024 MVEBs established in the maintenance plan.

**IX. Proposed Actions on the Redesignation Request and Maintenance Plan SIP Revisions Including Approval of the NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for 2024 for the Atlanta Area.**

On December 8, 2011, EPA determined that the Atlanta Area was attaining the 1997 PM<sub>2.5</sub> NAAQS. *See* 76 FR 76620. EPA is now proposing to take three separate but related actions regarding the redesignation and maintenance of the 1997 Annual PM<sub>2.5</sub> NAAQS for the Atlanta Area.

First, EPA is proposing to determine, based upon review of quality-assured and certified ambient monitoring data for the 2008-2010 period, and review of data in AQS for 2011 through 2014 that the Atlanta Area continues to attain the 1997 Annual PM<sub>2.5</sub> NAAQS. Second, EPA proposing to approve the maintenance plan for the Atlanta Area, including the NO<sub>x</sub> and PM<sub>2.5</sub> MVEBs for 2024, into the Georgia SIP (under section 175A). As described above, the maintenance plan demonstrates that the Area will continue to maintain the 1997 Annual PM<sub>2.5</sub> NAAQS, and the budgets meet all of the adequacy criteria contained in 40 CFR 93.118(e)(4) and (5). Third, EPA is proposing to approve Georgia's request for redesignation of the Atlanta Area from nonattainment to attainment for the 1997 PM<sub>2.5</sub> NAAQS based upon the preliminary determination that the Area has met the requirements for redesignation under CAA section 107(d)(3)(E). Further, as part of today's action, EPA is describing the status of its adequacy determination for the 2024 NO<sub>x</sub> and VOC MVEBs in accordance with 40 CFR 93.118(f)(1). Within 24 months from the effective date of EPA's adequacy determination for the MVEBs or the publication date for the final rule for this action, whichever is earlier, the transportation partners will need to demonstrate conformity to the new NO<sub>x</sub> and VOC MVEBs pursuant to 40 CFR 93.104(e).

If finalized, approval of Georgia's redesignation request for the Atlanta Area would change the official designation of Barrow, Bartow, Carroll, Cherokee, Clayton, Cobb, Coweta,



DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Hall, Henry, Newton, Paulding, Rockdale, Spalding, Walton, and portions of Heard and Putnam Counties in Georgia, as found at 40 CFR part 81, from nonattainment to attainment for the 1997 PM<sub>2.5</sub> NAAQS.

## **X. Statutory and Executive Order Reviews**

Under the CAA, redesignation of an area to attainment and the accompanying approval of a maintenance plan under section 107(d)(3)(E) are actions that affect the status of a geographical area and do not impose any additional regulatory requirements on sources beyond those imposed by state law. A redesignation to attainment does not in and of itself create any new requirements, but rather results in the applicability of requirements contained in the CAA for areas that have been redesignated to attainment. Moreover, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. *See* 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, these proposed actions merely approve state law as meeting federal requirements and do not impose additional requirements beyond those imposed by state law. For that reason, these proposed actions:

- are not significant regulatory actions subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);

- do not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- are 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.*);
- do 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);
- do not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- are not economically significant regulatory actions based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- are not significant regulatory actions subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- are 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
- will not have disproportionate human health or environmental effects under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications as specified by Executive

Order 13175 (65 FR 67249, November 9, 2000), nor will it impose substantial direct costs on tribal governments or preempt tribal law.

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Intergovernmental relations, Nitrogen oxides, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

**40 CFR Part 81**

Environmental protection, Air pollution control.

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

Dated: December 22, 2015.

Heather McTeer Toney

Regional Administrator,

Region 4.

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