

ENVIRONMENTAL PROTECTION AGENCY**40 CFR Parts 52 and 81**

[EPA-R04-OAR-2009-1011-201066; FRL-9464-3]

Approval and Promulgation of Implementation Plans and Designation of Areas for Air Quality Planning Purposes; North Carolina: Redesignation of the Greensboro-Winston-Salem-High Point 1997 Annual Fine Particulate Matter Nonattainment Area to Attainment**AGENCY:** Environmental Protection Agency (EPA).**ACTION:** Proposed rule.

SUMMARY: EPA is proposing to approve SIP revisions submitted on December 18, 2009, and December 22, 2010 (supplemental submission) by the State of North Carolina, through the North Carolina Department of Environment and Natural Resources (NC DENR), Division of Air Quality (DAQ), to support North Carolina's request to redesignate the Greensboro-Winston-Salem-High Point fine particulate matter (PM_{2.5}) nonattainment area (hereafter the "Greensboro Area" or "Area") to attainment for the 1997 Annual PM_{2.5} National Ambient Air Quality Standards (NAAQS). The Greensboro Area is comprised of Davidson and Guilford Counties in their entirety. EPA is now proposing four separate but related actions. First, EPA is proposing to approve the December 18, 2009, PM_{2.5} redesignation request, including the December 22, 2010, Motor Vehicle Emission Simulator (MOVES) mobile model supplement for the Greensboro Area, provided that EPA takes final action to approve specific provisions of the North Carolina Clean Smokestacks Act (NCCSA). Second, EPA is proposing to approve North Carolina's 2008 emissions inventory for the Greensboro Area under section 172(c)(3) of the Clean Air Act (CAA or Act). Third, subject to the same proviso regarding the NCCSA and final approval of the 2008 emissions inventory, EPA is proposing to approve the 1997 Annual PM_{2.5} NAAQS maintenance plan for the Greensboro Area, including the 2008 baseline emissions inventory, and the motor vehicle emission budgets (MVEBs) for PM_{2.5} and nitrogen oxides (NO_x) for the years 2011 and 2021 for the Greensboro Area. EPA is also describing the status of its transportation conformity adequacy determination for the new 2011 and 2021 MVEBs for PM_{2.5} and NO_x that are contained in the 1997 Annual PM_{2.5}

NAAQS maintenance plan for the Greensboro Area. Fourth and separate from the action to redesignate the Area, EPA is proposing to determine that the Greensboro Area has attained the 1997 Annual PM_{2.5} NAAQS by its applicable attainment date of April 5, 2010. These proposed actions are being taken pursuant to the CAA and its implementing regulations.

DATES: Comments must be received on or before October 26, 2011.**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R04-OAR-2009-1011, by one of the following methods:

1. <http://www.regulations.gov>: Follow the on-line instructions for submitting comments.

2. *E-mail:* benjamin.lynora@epa.gov.

3. *Fax:* (404) 562-9019.

4. *Mail:* EPA-R04-OAR-2009-1011, Regulatory Development Section, Air Planning 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. Lynora Benjamin, Chief, Regulatory Development Section, Air Planning 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 to 4:30, excluding Federal holidays.

Instructions: Direct your comments to Docket ID No. EPA-R04-OAR-2009-1011. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <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 <http://www.regulations.gov> or e-mail, information that you consider to be CBI or otherwise protected. The <http://www.regulations.gov> Web site 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 <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 <http://www.regulations.gov> index. Although listed in the index, some information is not publicly available, *i.e.*, CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in <http://www.regulations.gov> or in hard copy at the Regulatory Development Section, Air Planning 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 to 4:30, excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: Joel Huey, Regulatory Development Section, Air Planning 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.

SUPPLEMENTARY INFORMATION:**Table of Contents**

- I. What are the actions EPA is proposing to take?
- II. What is the background for EPA's proposed actions?
- III. What are the criteria for redesignation?
- IV. Why is EPA proposing these actions?
- V. What is the effect of EPA's proposed actions?
- VI. What is EPA's analysis of the request?

- VII. What is EPA's analysis of North Carolina's proposed PM_{2.5} and NO_x MVEBs for the Greensboro area?
- VIII. What is the status of EPA's adequacy determination for the proposed PM_{2.5} and NO_x MVEBs for 2011 and 2021 for the Greensboro area?
- IX. What is EPA's analysis of the proposed 2008 base year emissions inventory for the Greensboro area?
- X. Proposed Action on the Redesignation Request and Maintenance Plan SIP Revision Including Proposed Approval of the 2011 and 2021 PM_{2.5} and NO_x MVEBs for the Greensboro Area
- XI. Proposed Action on the Determination That the Greensboro Area Has Attained the 1997 PM_{2.5} NAAQS by Its Applicable Attainment Date
- XII. Statutory and Executive Order Reviews

I. What are the actions EPA is proposing to take?

EPA is proposing to take the following four separate but related actions, some of which involve multiple elements: (1) To redesignate the Greensboro Area to attainment for the 1997 Annual PM_{2.5} NAAQS, provided EPA approves the emissions inventory submitted with the maintenance plan as well as the NCCSA which is the subject of separate Federal rulemaking action; (2) to approve, under section 172(c)(3) of the CAA, the emissions inventory submitted with the maintenance plan; (3) to approve into the North Carolina SIP, under section 175A of the CAA, Greensboro's 1997 Annual PM_{2.5} NAAQS maintenance plan, including the associated MVEBs (EPA is also notifying the public of the status of EPA's adequacy determination for the Greensboro Area MVEBs); and (4) to determine, pursuant to section 179(c) of the CAA, that the Greensboro Area attained the 1997 PM_{2.5} NAAQS by its attainment date of April 5, 2010. On January 4, 2010, at 75 FR 54, EPA determined that the Greensboro Area was attaining the 1997 PM_{2.5} NAAQS. EPA is now proposing to determine that the Area is continuing to attain the 1997 PM_{2.5} NAAQS and to take several additional related actions regarding the Area, which are summarized below and described in greater detail throughout this notice of proposed rulemaking.

First, EPA proposes to determine that, if EPA's proposed approvals of the 2008 baseline emissions inventory for the Greensboro Area and the NCCSA Federal rulemaking action are finalized, the Area has met the requirements for redesignation under section 107(d)(3)(E) of the CAA. In this action, EPA is proposing to approve a request to change the legal designation of Davidson and Guilford Counties in the Greensboro Area from nonattainment to attainment for the 1997 Annual PM_{2.5} NAAQS. The emissions inventory is

being proposed for approval today, and the NCCSA rules were proposed for approval in a separate action on June 22, 2011 (76 FR 36468).

Second, EPA is proposing to approve North Carolina's 2008 emissions inventory for the Greensboro Area (under CAA section 172(c)(3)). North Carolina selected 2008 as the attainment emissions inventory year for the Greensboro Area. This attainment inventory identifies a level of emissions in the Area that is sufficient to attain the 1997 Annual PM_{2.5} NAAQS and is a current, comprehensive inventory that meets the requirements of section 172(c)(3).

Third, subject to EPA's final approval of the NCCSA into the SIP, EPA is proposing to approve North Carolina's 1997 Annual PM_{2.5} NAAQS maintenance plan for the Greensboro Area as meeting the requirements of CAA section 175A (such approval being one of the CAA criteria for redesignation to attainment status). The maintenance plan is designed to help keep the Greensboro Area in attainment of the 1997 Annual PM_{2.5} NAAQS through 2021. Consistent with the CAA, the maintenance plan that EPA is proposing to approve today also includes PM_{2.5} and NO_x MVEBs for the years 2011 and 2021. EPA is proposing to approve into the North Carolina SIP the 2011 and 2021 MVEBs that are included as part of North Carolina's maintenance plan for the 1997 Annual PM_{2.5} NAAQS.

On a related matter to this third action, EPA is also notifying the public of the status of EPA's adequacy process (Adequacy) for the newly-established PM_{2.5} and NO_x MVEBs for 2011 and 2021 for the Greensboro Area. The Adequacy comment period for the Greensboro Area 2011 and 2021 MVEBs began on November 23, 2010, with EPA's posting of the availability of this submittal on EPA's Adequacy Web site (<http://www.epa.gov/otaq/stateresources/transconf/currstips.htm>). The Adequacy comment period for these MVEBs closed on December 23, 2010, and EPA received no adverse comments. Please see section VIII of this proposed rulemaking for further explanation of this process and for more details on the MVEBs determination.

Fourth and separate from the action to redesignate the Area, EPA is proposing to determine, based on quality-assured and certified monitoring data for the 2007–2009 monitoring period, that the Greensboro Area has attained the 1997 Annual PM_{2.5} NAAQS by its applicable attainment date of April 5, 2010.

Today's notice of proposed rulemaking is in response to North Carolina's December 18, 2009, SIP

submittal and subsequent supplement of December 22, 2010. Those documents address the specific issues summarized above and the necessary elements described in section 107(d)(3)(E) of the CAA for redesignation of the Greensboro Area to attainment for the 1997 Annual PM_{2.5} NAAQS.

II. What is the background for EPA's proposed actions?

Fine particle pollution can be emitted directly or formed secondarily in the atmosphere. The main precursors of PM_{2.5} are sulfur dioxide (SO₂), NO_x, ammonia and volatile organic compounds (VOCs). Unless otherwise noted by the State or EPA, ammonia and VOCs are presumed to be insignificant contributors to PM_{2.5} formation, whereas SO₂ and NO_x are presumed to be significant contributors to PM_{2.5} formation. Sulfates are a type of secondary particle formed from SO₂ emissions of power plants and industrial facilities. Nitrates, another common type of secondary particle, are formed from NO_x emissions of power plants, automobiles, and other combustion sources.

On July 18, 1997, EPA promulgated the first air quality standards for PM_{2.5}. EPA promulgated an annual standard at a level of 15 micrograms per cubic meter (µg/m³), based on a three-year average of annual mean PM_{2.5} concentrations. In the same rulemaking, EPA promulgated a 24-hour standard of 65 µg/m³, based on a three-year average of the 98th percentile of 24-hour concentrations. On October 17, 2006, at 71 FR 61144, EPA retained the annual average NAAQS at 15 µg/m³ but revised the 24-hour NAAQS to 35 µg/m³, based again on the three-year average of the 98th percentile of 24-hour concentrations.¹ Under EPA regulations at 40 CFR part 50, the primary and secondary 1997 Annual 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 µg/m³ at all relevant monitoring sites in the subject area over a 3-year period.

On January 5, 2005, at 70 FR 944, and as supplemented on April 14, 2005, at 70 FR 19844, EPA designated the Greensboro Area as nonattainment for

¹ 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 this 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.

the 1997 Annual PM_{2.5} NAAQS. In that action, EPA defined the Greensboro Area to include Davidson and Guilford Counties in their entirety. On November 13, 2009, at 74 FR 58688, EPA promulgated designations for the 24-hour standard established in 2006, designating the Greensboro Area as attaining this NAAQS. That action clarified that the Greensboro Area was also attaining the 24-hour NAAQS promulgated in 1997. EPA did not promulgate designations for the annual average NAAQS promulgated in 2006 since the NAAQS was essentially identical to the annual NAAQS promulgated in 1997. Therefore, the Greensboro Area is designated nonattainment only for the annual PM_{2.5} NAAQS promulgated in 1997, and today's action only addresses this designation.

All 1997 PM_{2.5} NAAQS areas were designated under subpart 1 of title I, part D, of the CAA. Subpart 1 contains the general requirements for nonattainment areas for any pollutant governed by a NAAQS and is less prescriptive than the other subparts of title I, part D. On April 25, 2007, at 72 FR 20664, EPA promulgated its PM_{2.5} 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_{2.5} NAAQS. This rule, at 40 CFR 51.1004(c), specifies some of the regulatory consequences of attaining the NAAQS, as discussed below.

On May 12, 2005, EPA published the Clean Air Interstate Rule (CAIR), which addressed the interstate transport requirements of the CAA and required states to significantly reduce SO₂ and NO_x emissions from power plants (70 FR 25162). The associated Federal Implementation Plans (FIPs) were published on April 28, 2006 (71 FR 25328). However, on July 11, 2008, the D.C. Circuit issued its decision to vacate and remand both CAIR and the associated CAIR FIPs in their entirety. *North Carolina v. EPA*, 531 F.3d 836 (D.C. Cir., 2008). EPA petitioned for rehearing, and the Court issued an order remanding CAIR to EPA without vacating either CAIR or the CAIR FIPs. *North Carolina v. EPA*, 550 F.3d 1176 (D.C. Cir., 2008). The Court left CAIR in place to “temporarily preserve the environmental values covered by CAIR” until EPA replaces it with a rule consistent with the Court’s opinion. *Id.* at 1178. The Court directed EPA to “remedy CAIR’s flaws” consistent with its July 11, 2008, opinion but declined to impose a schedule on EPA for completing that action. *Id.* As a result of these court rulings, the power plant

emission reductions that resulted solely from the development, promulgation, and implementation of CAIR, and the associated contribution to air quality improvement that occurred solely as a result of CAIR in the Greensboro Area could not be considered to be permanent.

On August 8, 2011, EPA published the Cross State Air Pollution Rule (CSAPR) in the **Federal Register** under the title, “Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone in 27 States; Correction of SIP Approvals for 22 States” (the “Cross-State Air Pollution Rule” (CSAPR)) (76 FR 48208, August 8, 2011) to address interstate transport of emissions and resulting secondary air pollutants and to replace CAIR. The CAIR emission reduction requirements limit emissions in North Carolina and states upwind of North Carolina through 2011 and the CSAPR requires similar or greater reductions in the relevant areas in 2012 and beyond. The emission reductions that the CSAPR mandates may be considered to be permanent and enforceable. In turn, the air quality improvement in the Greensboro Area that has resulted from EGU emission reductions associated with CAIR (as well as the substantial further air quality improvement that would be expected to result from full implementation of the CSAPR) may also be considered to be permanent and enforceable. EPA proposes that the requirement in section 107(d)(3)(E)(iii) has now been met because the emission reduction requirements of CAIR address emissions through 2011 and EPA has now promulgated CSAPR which requires similar or greater reductions in the relevant areas in 2012 and beyond. Because the emission reduction requirements of CAIR are enforceable through the 2011 control period, and because CSAPR has now been promulgated to address the requirements previously addressed by CAIR and gets similar or greater reductions in the relevant areas in 2012 and beyond, EPA is proposing to determine that the emission reductions that led to attainment in the Greensboro nonattainment area can now be considered permanent and enforceable. Therefore, EPA proposes to find that the transport requirement of CAA section 107(d)(3)(E)(iii) has been met for the Greensboro Area.

The 3-year ambient air quality data for 2006–2008 indicated no violations of the 1997 PM_{2.5} NAAQS for the Greensboro Area. As a result, on December 18, 2009, and as supplemented on December 22, 2010, North Carolina requested redesignation

of the Greensboro Area to attainment for the 1997 Annual PM_{2.5} NAAQS. The redesignation request included three years of complete, quality-assured ambient air quality data for the 1997 Annual PM_{2.5} NAAQS for 2006–2008, indicating that the 1997 Annual PM_{2.5} NAAQS had been achieved for the Greensboro Area. Under the CAA, nonattainment areas may be redesignated to attainment if sufficient, complete, 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). From 2005 through the present, the monitored annual average PM_{2.5} values for the Greensboro Area have declined such that the Area is attaining the 1997 Annual PM_{2.5} NAAQS. On January 4, 2010, EPA determined that the Greensboro Area had attained the 1997 Annual PM_{2.5} NAAQS (75 FR 54). While annual PM_{2.5} concentrations are dependent on a variety of conditions, the overall downtrend in annual PM_{2.5} concentrations in the Greensboro Area can be attributed to the reduction of SO₂ emissions, as will be discussed in more detail in section VI of this proposed rulemaking. EPA is now proposing to find that the Greensboro Area continues to attain the 1997 PM_{2.5} NAAQS.

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.

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

on April 28, 1992, 57 FR 18070) and has provided further guidance on processing redesignation requests in the following documents:

1. "Procedures for Processing Requests to Redesignate Areas to Attainment," Memorandum from John Calcagni, Director, Air Quality Management Division, September 4, 1992 (hereafter referred to as the "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 December 18, 2009, and as supplemented on December 22, 2010, the State of North Carolina, through DAQ, requested redesignation of the Greensboro Area to attainment for the 1997 Annual PM_{2.5} NAAQS. EPA's evaluation indicates that the Greensboro Area has attained the 1997 Annual PM_{2.5} NAAQS. If EPA finalizes approval of the emissions inventory and the NCCSA rulemaking, the Area will meet 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 first three related actions previously summarized. The fourth action, to determine that the Area has attained the 1997 Annual PM_{2.5} NAAQS by its attainment date, is being proposed in accordance with section 179(c)(1) of the CAA based upon EPA's review of the data for 2007–2009. Section 179(c)(1) reads as follows: "As expeditiously as practicable after the applicable attainment date for any nonattainment area, but not later than 6 months after such date, the Administrator shall determine, based on the area's air quality as of the attainment date, whether the area attained the standard by that date." EPA proposes to determine that the Area attained the 1997 Annual PM_{2.5} NAAQS by its applicable attainment date of April 5, 2010.

V. What is the effect of EPA's proposed actions?

EPA's proposed actions establish the basis upon which EPA may take final action on the North Carolina submittal being proposed for approval today. Approval of North Carolina's redesignation request would change the legal designation of Davidson and Guilford Counties in North Carolina for the 1997 Annual PM_{2.5} NAAQS, found at 40 CFR part 81, from nonattainment to attainment. Approval of North Carolina's request would also incorporate into the North Carolina SIP a plan for maintaining the 1997 Annual PM_{2.5} NAAQS in the Greensboro Area through 2021. The maintenance plan includes, among other components, contingency measures to remedy potential future violations of the 1997 Annual PM_{2.5} NAAQS. Approval of North Carolina's maintenance plan would also result in approval of the NO_x MVEBs. The PM_{2.5} MVEBs for the Greensboro Area are 153,313 kilograms/year (kg/yr) for both 2011 and 2021. The NO_x MVEBs for 2011 and 2021 for Davidson County are 4,086,413 kg/yr and 2,148,938 kg/yr, respectively. The PM_{2.5} MVEBs for Guilford County are 421,841 kg/yr for both 2011 and 2021. The NO_x MVEBs for 2011 and 2021 for Guilford County are 11,133,605 kg/yr and 6,309,650 kg/yr, respectively. Final action would also approve the Area's emissions inventory under section 172(c)(3). Additionally, EPA is notifying the public of the status of its adequacy determination for the PM_{2.5} and NO_x MVEBs for 2011 and 2021.

VI. What is EPA's analysis of the request?

As stated above, in accordance with the CAA, EPA proposes in today's action to: (1) Redesignate the Greensboro Area to attainment for the 1997 Annual PM_{2.5} NAAQS; (2) approve the Greensboro Area emissions inventory submitted with the maintenance plan; (3) approve into the North Carolina SIP Greensboro's 1997 Annual PM_{2.5} NAAQS maintenance plan, including the associated MVEBs; and (4) determine that the Greensboro Area attained the 1997 PM_{2.5} NAAQS by its attainment date of April 5, 2010. The first three of these actions are based upon EPA's determination that the Greensboro Area continues to attain the 1997 Annual PM_{2.5} NAAQS and that all other redesignation criteria have been met for the Greensboro Area, provided EPA approves the emissions inventory

submitted with the maintenance plan and the NCCSA rulemaking. The five redesignation criteria provided under CAA section 107(d)(3)(E) are discussed in greater detail for the Area in the following paragraphs of this section. The fourth action, EPA's proposed determination that the Greensboro Area attained the 1997 PM_{2.5} NAAQS by its attainment date of April 5, 2010, is discussed in section XI.

Criteria (1)—The Greensboro Area has Attained the 1997 Annual PM_{2.5} 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)). EPA is proposing to determine that the Greensboro Area continues to attain the 1997 Annual PM_{2.5} NAAQS. For PM_{2.5}, an area may be considered to be attaining the 1997 Annual PM_{2.5} NAAQS if it meets the 1997 Annual PM_{2.5} NAAQS, as determined in accordance with 40 CFR 50.7 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, is less than or equal to 15.0 µg/m³ 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). The monitors generally should have remained at the same location for the duration of the monitoring period required for demonstrating attainment.

On January 4, 2010, at 75 FR 54, EPA determined that the Greensboro Area was attaining the 1997 PM_{2.5} NAAQS. EPA reviewed PM_{2.5} monitoring data from monitoring sites in the Greensboro Area for the 1997 Annual PM_{2.5} NAAQS for 2006–2009. These data have been quality-assured and are recorded in AQS. The annual arithmetic mean PM_{2.5} concentrations for 2006–2009 and the 3-year averages of these values (*i.e.*, design values) are summarized in Table 1.² EPA has reviewed more recent data which indicate that the Greensboro Area continues to attain the 1997 PM_{2.5} NAAQS. The design values for 2007–2009 and 2008–2010 are also included in Table 1 and demonstrate that the Greensboro Area continues to meet the PM_{2.5} NAAQS and that the ambient

² The values in Table 1 represent the most current quality assured, quality controlled and certified ambient air monitoring data available in the EPA

AQS database and, therefore differ slightly from the values submitted in the North Carolina redesignation request. The Colfax monitor was

added in 2007 and thus does not have the three years of data required for calculating a design value.

concentrations of PM_{2.5} are continuing to decrease in the Area.

TABLE 1—DESIGN VALUE CONCENTRATIONS FOR THE GREENSBORO 1997 ANNUAL PM_{2.5} NONATTAINMENT AREA (μg/M³)

County	Site name	Monitor ID	Annual average PM _{2.5} concentrations (μg/m ³)				
			2006	2007	2008	2009	2010 ³
Davidson	Lexington	37-057-0002	15.13	14.64	13.61	10.61	12.1
Guilford	Mendenhall	37-081-0013	14.5	13.14	11.41	9.31	10.4
Guilford	Colfax	37-035-0014	N/A	N/A	12.32	9.63	10.5
			Three-year PM _{2.5} design values (μg/m ³)				
			2006-2008		2007-2009		2008-2010 ³
Davidson	Lexington	37-057-0002	14.5		13.0		12.1
Guilford	Mendenhall	37-081-0013	13.0		11.3		10.4
Guilford	Colfax	37-035-0014	N/A		N/A		10.8

The 3-year design value (2006-2008) submitted by North Carolina for redesignation of the Greensboro Area is 14.5 μg/m³, which meets the NAAQS as described above. Preliminary 2010 air quality data that are available in AQS, but not yet certified, indicate that the Area continues to attain the PM_{2.5} NAAQS. As mentioned above, on January 4, 2010, (75 FR 54) EPA published a clean data determination for the Greensboro Area for the 1997 PM_{2.5} NAAQS. In today's action, EPA is proposing to determine that the Area is continuing to attain the 1997 PM_{2.5} NAAQS. EPA will not go forward with the redesignation if the Area does not continue to attain until the time that EPA finalizes the redesignation. As discussed in more detail below, the State of North Carolina has committed to continue monitoring in the Area in accordance with 40 CFR part 58.

Criteria (5)—North Carolina Has Met All Applicable Requirements Under Section 110 and Part D of Title I of the CAA; and Criteria (2)—North Carolina Has a Fully Approved SIP Under Section 110(k) for the Greensboro 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 North Carolina has met all applicable SIP requirements for the Greensboro Area under section 110 of the CAA (general SIP requirements) for

³ The preliminary PM_{2.5} ambient air quality data for 2010 for the Greensboro Area indicates that the Area is attaining the NAAQS with 2008-2010 design values. This preliminary data includes complete data from all quarters of 2010 but has not yet been certified and is thus subject to change.

purposes of redesignation. EPA also proposes to find that the North Carolina SIP satisfies the criterion that it meet applicable SIP requirements for purposes of redesignation under part D of title I of the CAA (requirements specific to 1997 Annual PM_{2.5} nonattainment areas). Further, EPA proposes to determine that the SIP is fully approved with respect to all requirements applicable under section 110(k). In making these determinations, EPA ascertained which requirements are applicable to the Area and, if applicable, that they are fully approved under the CAA. For the purposes of review of the State's redesignation request, the SIP needs only to be fully approved with respect to requirements that were applicable prior to submittal of the complete redesignation request.

a. Greensboro Area Has Met All Applicable Requirements Under Section 110 and Part D of Title I 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 (New Source Review (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 (e.g., NO_x SIP Call,⁴ CAIR,⁵ and the CSAPR). 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

⁴ On October 27, 1998 (63 FR 57356), EPA issued a NO_x SIP Call requiring the District of Columbia and 22 states to reduce emissions of NO_x in order to reduce the transport of ozone and ozone precursors. In compliance with EPA's NO_x SIP Call, North Carolina developed rules governing the control of NO_x emissions from Electric Generating Units (EGUs), major non-EGU industrial boilers, major cement kilns, and internal combustion engines. On December 27, 2002, EPA approved North Carolina's rules as fulfilling Phase I (67 FR 78987).

⁵ On May 12, 2005 (70 FR 25162), EPA promulgated CAIR which required 28 upwind States and the District of Columbia to revise their SIPs to include control measures that would reduce emissions of SO₂ and NO_x. Various aspects of CAIR rule were petitioned in court and on December 23, 2008, the U.S. Court of Appeals for the District of Columbia Circuit remanded CAIR to EPA (see *North Carolina v. EPA*, 550 F.3d 1176 (D.C. Cir., December 23, 2008)) which left CAIR in place to "temporarily preserve the environmental values covered by CAIR" until EPA replaces it with a rule consistent with the Court's ruling. The Court directed EPA to remedy various areas of the rule that were petitioned consistent with its July 11, 2008 (see *North Carolina v. EPA*, 531 F.3d 836 (D.C. Cir., July 11, 2008)), opinion, but declined to impose a schedule on EPA for completing that action. *Id.* Therefore, CAIR is currently in effect in North Carolina.

requirements linked with a particular nonattainment area's designation and classifications are the relevant measures to evaluate in reviewing a redesignation request. The transport SIP submittal requirements, where applicable, continue to apply to a state regardless of the designation of any one particular area in the state. Thus, EPA does not believe that the CAA's interstate transport requirements should be construed to be applicable requirements for purposes of redesignation. However, as discussed later in this notice, addressing pollutant transport from other states is an important part of an area's maintenance demonstration.

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 that 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-Lorain, 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).

EPA has not yet completed rulemaking on a submittal from North Carolina dated April 1, 2008, addressing "infrastructure SIP" elements required under CAA section 110(a)(2). However, these are statewide requirements that are not a consequence of the nonattainment status of the Greensboro Area. As stated above, EPA believes that section 110 elements not linked to an area's nonattainment status are not applicable for purposes of redesignation. Therefore, notwithstanding the fact that EPA has not yet completed rulemaking on North Carolina's submittal for the PM_{2.5} infrastructure SIP elements of section 110(a)(2), EPA believes it has approved all SIP elements under section 110 that must be approved as a prerequisite for

redesignating the Greensboro Area to attainment.

Title I, Part D requirements. EPA proposes that with approval of North Carolina's base year emissions inventory, which is part of the maintenance plan submittal, the North Carolina SIP will meet applicable SIP requirements under part D of title I of the CAA. As discussed in greater detail below, EPA believes the emissions inventory is approvable because the 2008 direct PM_{2.5}, SO₂, and NO_x emissions for North Carolina were developed consistent with EPA guidance for emissions inventories and represent a comprehensive, accurate and current inventory as required by section 172(c)(3).

Part D, subpart 1 applicable SIP requirements. EPA has determined that if the approval of the base year emissions inventories, discussed in section IX of this rulemaking, is finalized, the North Carolina SIP will meet the applicable SIP requirements for the Greensboro Area for purposes of redesignation under title I, part D of the CAA. Subpart 1 of part D sets forth the basic nonattainment requirements applicable to all nonattainment areas. All areas that were designated nonattainment for the 1997 Annual PM_{2.5} NAAQS were designated under this subpart of the CAA and the requirements applicable to them are contained in sections 172 and 176.

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 section 172 can be found in the General Preamble for Implementation of title I (57 FR 13498, April 16, 1992).

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 national primary ambient air quality standards. 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 January 4, 2010, determination that the

Greensboro Area was attaining the PM_{2.5} standard suspended North Carolina's obligation to submit most of the attainment planning requirements that would otherwise apply. Specifically, the determination of attainment suspended North Carolina's obligation to submit an attainment demonstration and planning SIPs to provide for reasonable further progress (RFP), reasonable available control measures, and contingency measures under section 172(c)(9).

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

Because attainment has been reached in the Greensboro 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. See also 40 CFR 51.1004(c).

The RFP plan requirement under section 172(c)(2) is defined as progress that must be made toward attainment. This requirement is not relevant for purposes of redesignation because EPA has determined that the Greensboro Area has monitored attainment of the 1997 Annual PM_{2.5} NAAQS. See General Preamble, 57 FR 13564. See also 40 CFR 51.1004(c). In addition, because the Greensboro Area has attained the 1997 Annual PM_{2.5} 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. *Id.*

Section 172(c)(3) requires submission and approval of a comprehensive, accurate, and current inventory of actual emissions. As part of North Carolina's redesignation request for the Greensboro Area, North Carolina submitted a 2008 base year emissions inventory. As discussed below in section IX, EPA is proposing to approve the 2008 base year inventory submitted with the redesignation request as meeting the section 172(c)(3) emissions inventory requirement.

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." North Carolina has demonstrated that the Greensboro Area will be able to maintain the NAAQS without part D NSR in effect, and therefore North Carolina need not have fully approved part D NSR programs prior to approval of the redesignation request. Nonetheless, North Carolina currently has a fully-approved part D NSR program in place. North Carolina's PSD program will become effective in the Greensboro Area upon redesignation to attainment. 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)(7) requires the SIP to meet the applicable provisions of section 110(a)(2). As noted above, EPA believes the North Carolina SIP meets the requirements of section 110(a)(2) applicable for purposes of redesignation.

Section 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 interprets the conformity SIP requirements⁶ as not applying for purposes of evaluating a 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 (6th Cir. 2001) (upholding this interpretation); *see also* 60 FR 62748 (December 7, 1995) (resignation of Tampa, Florida). Thus, the Greensboro Area has satisfied all applicable requirements for purposes of redesignation under section 110 and part D of title I of the CAA.

b. The Greensboro Area Has a Fully Approved Applicable SIP Under Section 110(k) of the CAA

If EPA issues a final approval of the base year emissions inventories, EPA will have fully approved the applicable North Carolina SIP for the Greensboro Area under section 110(k) of the CAA for all requirements applicable for purposes of redesignation for the 1997 Annual PM_{2.5} NAAQS. 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, 989–90 (6th 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 citations therein). Following passage of the CAA of 1970, North Carolina has adopted and submitted, and EPA has fully approved at various times, provisions addressing the various 1997 Annual PM_{2.5} NAAQS SIP elements applicable in the Greensboro Area (45 FR 26038, April 17, 1980; 46 FR 43137, August 27, 1981; 50 FR 41501, October 11, 1985; 51 FR 41786, November 19, 1986; and 51 FR 45468, December 19, 1986).

As indicated above, EPA believes that the section 110 elements that are neither connected with nonattainment plan submissions nor linked to an area's nonattainment status are not applicable requirements for purposes of redesignation. In addition, EPA believes that since the part D subpart 1 requirements did not become due prior to submission of the redesignation request, they are also not applicable requirements for purposes of redesignation. *Sierra Club v. EPA*, 375

F.3d 537 (7th Cir. 2004); 68 FR 25424, 25427 (May 12, 2003) (redesignation of the St. Louis-East St. Louis Area to attainment of the 1-hour ozone NAAQS). With the approval of the emissions inventory, EPA will have approved all Part D subpart 1 requirements applicable for purposes of this redesignation.

Criteria (3)—The Air Quality Improvement in the Greensboro Area 1997 Annual PM_{2.5} NAAQS Nonattainment 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 believes North Carolina has demonstrated that the observed air quality improvement in the Greensboro Area is due to permanent and enforceable reductions resulting from implementation of the SIP, Federal measures, and other state adopted measures.

Fine particulate matter, or PM_{2.5}, 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. One of the largest components of PM_{2.5} in the southeastern United States is sulfate, which is formed through various chemical reactions from the precursor SO₂. The other major component of PM_{2.5} is organic carbon, which originates predominantly from biogenic emission sources. Nitrate, which is formed from the precursor NO_x, is also a component of PM_{2.5}. Crustal materials from windblown dust and elemental carbon from combustion sources are less significant contributors to total PM_{2.5}.

State and Federal measures enacted in recent years have resulted in permanent emission reductions. 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. In addition to requiring NO_x controls, the Tier 2

⁶CAA 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 MVEBs that are established in control strategy SIPs and maintenance plans.

rule reduced the allowable sulfur content of gasoline to 30 parts per million (ppm) starting in January of 2006. Most gasoline sold in North Carolina prior to this had a sulfur content of approximately 300 ppm.

Heavy-duty gasoline and diesel highway vehicle standards. The second phase of the standards and testing procedures, which began in 2007, reduces particulate matter (PM) and NO_x from heavy-duty highway engines and also reduces highway diesel fuel sulfur content to 15 ppm. The total program is expected to achieve a 90 and 95 percent reduction in PM and NO_x emissions from heavy-duty highway engines, respectively.

Nonroad spark-ignition engines and recreational engines standards. Tier 1 of this standard, implemented in 2004, and Tier 2, implemented in 2007, have reduced and will continue to reduce PM emissions.

Large nonroad diesel engine standards. Promulgated in 2004, this rule is being phased in between 2008 and 2014. This rule will reduce sulfur content in nonroad diesel fuel and, when fully implemented, will reduce NO_x and direct PM_{2.5} emissions by over 90 percent from these engines.

CAIR and the Cross-State Air Pollution Rule (CSAPR). As previously discussed, the remanded CAIR, originally promulgated to reduce transported pollution, was left in place to “temporarily preserve the environmental values covered by CAIR” until EPA replaced it with a rule

consistent with the Court’s opinion. To remedy CAIR’s flaws, EPA promulgated the final CSAPR on August 8, 2011.

CSAPR addresses the interstate transport requirements of the CAA with respect to the 1997 ozone, 1997 PM_{2.5} and 2006 PM_{2.5} NAAQS. As noted previously, the requirements of CAIR address emissions through the 2011 control period and CSAPR requires similar or greater emission reductions in the relevant areas in 2012 and beyond.

The state measures that have been implemented to date and relied upon by North Carolina to demonstrate attainment and/or maintenance include:

NCCSA. The primary state-adopted measure is the NCCSA, enacted in June 2002. The NCCSA includes a schedule of system-wide caps on emissions of NO_x and SO₂, the first of which became effective in 2007, and has no provision for the trading of pollution credits from one utility to another. According to North Carolina, this rule requires coal-fired power plants in the State to reduce annual NO_x emissions from 245,000 tons in 1998 to 56,000 tons by 2009 (a 77 percent reduction) and to reduce annual SO₂ emissions from 489,000 tons in 1998 to 250,000 tons by 2009 (a 49 percent reduction), and further SO₂ reductions to 130,000 tons in 2013 (a 73 percent reduction). Although there are no power plants located within the Greensboro Area, there are power plants located around the Area. On August 21, 2009, North Carolina submitted a SIP revision to incorporate specific provisions of the NCCSA into the

federally approved SIP. On June 22, 2011, EPA proposed approval of the NCCSA rules as a revision to the SIP and expects to take final action on it in a rulemaking separate from today’s proposed action but prior to any final action on this redesignation.

Another significant rulemaking which has led to permanent and enforceable reductions is the NO_x SIP Call rule. This rule was predicted to reduce summertime NO_x emissions from power plants and other industries by over 60 percent in North Carolina by 2006. See Table III–5 of NO_x SIP Call, 63 FR 57356, 57434 (October 27, 1998). These emission reductions are state and federally enforceable.

Table 2 presents the annual emissions from North Carolina sources as recorded in EPA’s acid rain database. Since 2002, when the NO_x controls started coming on-line to meet the NO_x SIP Call, and later to meet the NCCSA, the annual NO_x emissions from subject sources have decreased dramatically from 145,706 tons per year (tpy) in 2002 to 61,669 tpy in 2008. In 2009 the emissions decreased to 44,506 tpy—down more than 69 percent from 2002. Between 2005 and 2008, the annual SO₂ emissions from the utilities in North Carolina decreased by more than half from 500,936 tpy to 227,030 tpy, or nearly 274,000 tons reduced. In 2009, the emissions were again halved, down 76 percent from 2002. The decline in SO₂ emissions has coincided with a decline in annual PM_{2.5} concentrations across North Carolina.

TABLE 2—ANNUAL EMISSIONS FROM ALL NC SOURCES IN THE EPA CLEAN AIR MARKETS DATABASE

Year	Annual SO ₂ emissions (tons)	Annual NO _x emissions (tons)
2002	462,993	145,706
2003	462,041	135,879
2004	472,320	124,079
2005	500,936	114,300
2006	462,143	108,584
2007	370,827	64,770
2008	227,030	61,669
2009	110,948	44,506

Other state measures have been implemented that are state enforceable but not a part of the federally-enforceable SIP. Such measures contribute to reductions in pollutant emissions, although to a lesser extent than the ones identified above, and include the following:

Clean Air Bill. This state legislation expanded the inspection and maintenance program from 9 counties to 48 counties and was phased in for the

Greensboro Area from July 1, 2002 through July 1, 2003. This program reduces NO_x, VOC, and carbon monoxide (CO) emissions.

Open burning. This regulation, originally approved in 1997, prohibits the open burning of man-made materials throughout the State. Additionally, this regulation prohibits open burning of yard waste in areas for which the DAQ forecasts an air quality action day. The open burning regulation will reduce

PM_{2.5} emissions, as well as NO_x, VOC and CO emissions.

Diesel Retrofits. As part of the North Carolina Mobile Source Emission Reduction Grants program, a number of cities, counties and school districts have installed diesel oxidation catalysts or diesel particulate filters on their diesel equipment. The vehicles that have been retrofitted include school buses and county fleet trucks used for solid waste pickup. These types of filters are

designed to reduce PM engine emissions, and when used with ultra low sulfur diesel fuel, NO_x and VOC emissions are also reduced. Even though these emission reductions are voluntary and not enforceable, they are still considered permanent reductions.

Diesel Emissions Reduction Act (DERA). DERA provides new diesel emissions reduction grant authority for EPA. This funding is used to achieve significant reductions in diesel emissions that improve air quality and protect public health. The DERA funds that the DAQ has received have been used to retrofit, repower, or replace existing diesel engines from on-road and nonroad mobile source vehicles and equipment. This program will reduce PM, NO_x, and VOC emissions. Even though these emission reductions are voluntary, they are still considered permanent reductions once a retrofit is completed. To date, North Carolina has retrofitted over 6,000 diesel school buses. In addition to impacting local emissions in the nonattainment area, most of these measures impact emissions statewide.

EPA agrees with North Carolina's assessment that, although PM_{2.5} and PM_{2.5} precursor reductions within the nonattainment area have contributed to improved air quality, the majority of the improvement in ambient PM_{2.5} concentrations has resulted from reductions in SO₂ emissions from in-state coal-fired power plants due to the NCCSA. The annual emissions from these facilities have significantly decreased since 2005, with over 250,000 tons of SO₂ emission reductions in 2008 compared to 2005. EPA's analysis of emissions data available in from the Clean Air Markets Division Web site (<http://www.epa.gov/airmarkets/>) shows that the statewide reductions in SO₂ emissions are much greater than any decreases in emissions that can be attributed to decreases in demand associated with reductions in operating hours or heat inputs at North Carolina power plants. While coal-fired electric power generation in North Carolina decreased 4.8 percent from 2005 to 2008,⁷ SO₂ emissions from coal-fired electric power plants declined 46.0 percent during the same period.

The NCCSA reductions took place beginning in 2006, the first year of the 3-year attainment period submitted by North Carolina for redesignation of the Greensboro Area. Since the final compliance date for the NCCSA SO₂ emissions caps is 2013, future design

values are expected to continue to decline below the 2006–2008 attaining design values. The significant statewide reductions in utility SO₂ emissions will be permanent and enforceable upon EPA's approval of the NCCSA rules into the North Carolina SIP. Further, EPA does not have any information to suggest that the decrease in ambient PM_{2.5} concentrations in the Greensboro Area is due to unusually favorable meteorological conditions. Additionally, the emission reductions resulting from the NCCSA discussed above are of a greater magnitude than any influence that could be expected from meteorology. The 250,000 tons of SO₂ emission reductions since 2005 represents a greater than 41 percent reduction of statewide SO₂ emissions. It is reasonable to expect that such significant reductions have reduced ambient PM_{2.5} levels throughout the State—including in the Greensboro Area. Indeed, every PM_{2.5} monitor in the State has shown a consistent downward trend during the period from 2006–2009.⁸

Criteria (4)—The Greensboro 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 Greensboro Area to attainment for the 1997 Annual PM_{2.5} NAAQS, DAQ submitted a SIP revision to provide for the maintenance of the 1997 Annual PM_{2.5} NAAQS for at least 10 years after the effective date of redesignation to attainment. EPA believes this maintenance plan meets the requirements for approval under section 175A of the CAA.

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, the State 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

future NAAQS violations, the maintenance plan must contain contingency measures as EPA deems necessary to assure prompt correction of any future 1997 Annual PM_{2.5} 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 more fully below, EPA finds that North Carolina's maintenance plan includes all the necessary components and is thus proposing to approve it as a revision to the North Carolina SIP, provided that EPA takes final action to approve the NCCSA rules.

b. Attainment Emissions Inventory

The Greensboro Area first attained the 1997 Annual PM_{2.5} NAAQS based on monitoring data for the 3-year period 2006–2008. North Carolina selected 2008 as the attainment emissions inventory year in part because it was already in the process of developing some emissions inventory data for this year. The attainment inventory identifies a level of emissions in the Area that is sufficient to attain the 1997 Annual PM_{2.5} NAAQS. North Carolina began development of the attainment inventory by first generating a baseline emissions inventory for the Greensboro Area. As noted above, the year 2008 was chosen as the base year for developing a comprehensive emissions inventory for primary PM_{2.5}, SO₂, and NO_x, for which projected emissions could be developed for 2011, 2014, 2017, and 2021. In addition to comparing the final year of the plan, 2021, to the base year, 2008, North Carolina compared interim years to the 2008 baseline to demonstrate that these years are also expected to show continued maintenance of the annual PM_{2.5} standard.

The emissions inventories are composed of four major types of sources: Point, area, on-road mobile and non-road mobile. The future year emissions inventories have been estimated using projected rates of growth in population, traffic, economic activity, expected control programs, and other parameters. Non-road mobile emissions estimates were based on the EPA's NONROAD2008, a non-road mobile model, with the exception of railroad locomotive and aircraft engine emissions. The railroad locomotive and aircraft engine emissions were estimated by taking activity data, such as landings

⁷ Electric Power Annual 2009, DOE/EIA–0348(2009), North Carolina Electricity Profile, Tables 5 and 7. April 2011.

⁸ <http://www.epa.gov/airtrends/values.html>.

and takeoffs, and multiplying by an emission factor. On-road mobile source emissions were calculated using EPA's MOVES mobile emission factors model. The 2008 SO₂, NO_x and PM_{2.5} emissions for the Greensboro Area, as well as the emissions for other years, were developed consistent with EPA guidance and are summarized in Tables 3 through 5 of the following subsection discussing the maintenance demonstration.

c. Maintenance Demonstration

The December 18, 2009, final submittal and December 22, 2010,

supplement included a maintenance plan for the Greensboro Area. This demonstration:

- (i) Shows compliance with and maintenance of the annual PM_{2.5} standard by providing information to support the demonstration that current and future emissions of SO₂, NO_x and PM_{2.5} remain at or below 2008 SO₂, NO_x and PM_{2.5} emissions levels.
- (ii) Uses 2008 as the attainment year and includes future emission inventory projections for 2011, 2014, 2017, and 2021 as shown in Tables 3–6 below.
- (iii) Identifies an “out year” at least 10 years (and beyond) after the time

necessary for EPA to review and approve the maintenance plan. Per 40 CFR part 93, PM_{2.5} and NO_x MVEBs were established for the last year (2021) of the maintenance plan. Additionally, North Carolina chose, through interagency consultation, to establish PM_{2.5} and NO_x MVEBs for 2011 (see section VII below).

(iv) Provides, as shown in Table 6 below, the actual and projected emissions inventories, in tpy, for the Greensboro Area.

TABLE 3—ACTUAL AND PROJECTED NO_x EMISSIONS FROM ALL SOURCE CATEGORIES IN THE GREENSBORO AREA (TPY)

County	2008	2011	2014	2017	2021
Point					
Davidson	841	865	892	920	961
Guilford	231	231	232	233	237
Total	1072	1096	1124	1153	1198
Area					
Davidson	583	551	516	486	438
Guilford	1243	1210	1177	1146	1099
Total	1826	1761	1693	1632	1537
On-road Mobile					
Davidson	5267	4095	3227	2536	1974
Guilford	14499	11157	8882	7143	5796
Total	19766	15252	12109	9679	7770
Non-road Mobile					
Davidson	1831	1632	1467	1275	1115
Guilford	3864	3371	2816	2350	1980
Total	5695	5003	4283	3625	3095
Total for all sectors	28359	23112	19209	16089	13600

TABLE 4—ACTUAL AND PROJECTED SO₂ EMISSIONS FROM ALL SOURCE CATEGORIES IN THE GREENSBORO AREA (TPY)

County	2008	2011	2014	2017	2021
Point					
Davidson	286	289	292	295	299
Guilford	449	451	453	455	458
Total	735	740	745	750	757
Area					
Davidson	983	838	692	548	353
Guilford	4129	3905	3683	3460	3164
Total	5112	4743	4375	4008	3517
On-road Mobile					
Davidson	36	19	17	18	18
Guilford	111	62	55	59	63

TABLE 4—ACTUAL AND PROJECTED SO₂ EMISSIONS FROM ALL SOURCE CATEGORIES IN THE GREENSBORO AREA (TPY)—Continued

County	2008	2011	2014	2017	2021
Total	147	81	72	77	81
Non-road Mobile					
Davidson	25	17	2	2	2
Guilford	96	51	42	42	43
Total	121	68	44	44	45
Total for all sectors	6115	5632	5236	4879	4400

TABLE 5—ACTUAL AND PROJECTED DIRECT PM_{2.5} EMISSIONS FROM ALL SOURCE CATEGORIES IN THE GREENSBORO AREA (TPY)

County	2008	2011	2014	2017	2021
Point					
Davidson	179	178	177	176	175
Guilford	62	62	62	63	63
Total	241	240	239	239	238
Area					
Davidson	1071	1028	979	937	857
Guilford	697	663	623	590	524
Total	1768	1691	1602	1527	1381
On-road Mobile					
Davidson	169	121	97	77	60
Guilford	465	330	272	221	183
Total	634	451	369	298	243
Non-road Mobile					
Davidson	71	67	58	46	40
Guilford	264	252	220	186	157
Total	335	319	278	232	197
Total for all sectors	2978	2701	2488	2296	2059

TABLE 6—EMISSIONS AND MAINTENANCE SUMMARY FOR THE GREENSBORO PM_{2.5} NONATTAINMENT AREA

Year	NO _x (tpy)	SO ₂ (tpy)	PM _{2.5} (tpy)
2008	28,359	6,115	2,978
2011	23,112	5,632	2,701
2014	19,209	5,236	2,488
2017	16,089	4,879	2,296
2021	13,600	4,400	2,059
Difference from 2008 to 2021	-14,759	-1,715	-919

Tables 3 through 6 summarize the 2008 and future projected emissions of direct PM_{2.5} and precursors from the counties in the Greensboro Area. In situations where local emissions are the primary contributor to nonattainment, the ambient air quality standard should not be violated in the future as long as emissions from within the

nonattainment area remain at or below the baseline with which attainment was achieved. In the Greensboro Area, however, the preponderance of the nonattainment problem is due to SO₂ emissions from power plants outside the nonattainment area, but within North Carolina. As shown by the speciation

data in the State's submittal,⁹ sulfates are one of the largest contributors to ambient PM_{2.5} in the Greensboro Area and in the State as a whole, contributing about 30 percent of the total PM_{2.5} mass. Sulfates are formed through various SO₂ reactions in the atmosphere. According

⁹ SIP submittal figures 2-2 and 4-1.

to EPA's National Emissions Inventory for 2005 and Clean Air Markets Division acid rain database, over 90 percent of SO₂ emissions in North Carolina were from stationary point sources, greater than 80 percent of which were from power plants reporting to the acid rain program.¹⁰ Organic carbon, which also contributes about 30 percent of the total PM_{2.5} mass in the Greensboro Area, is predominately attributed to biogenic emission sources. The next largest contributor in the Greensboro Area is an "other" group that is attributed to water, sea salts, and other trace materials and which accounts for about 17 percent of the mass.

Because the most significant sources contributing to ambient PM_{2.5} levels in the Greensboro Area are utilities located outside the nonattainment area, but within North Carolina, reductions in emissions from these point sources provide the greatest potential for reductions in ambient PM_{2.5} concentrations. For this reason, the State presented information in its submittal (as discussed above in the section on permanent and enforceable reductions), showing that the NCCSA requires these sources to reduce their emissions by substantial amounts that are more than sufficient for the Greensboro Area to demonstrate attainment and maintenance of the PM_{2.5} NAAQS at issue here. EPA has proposed rulemaking action to approve specific provisions of the NCCSA into the North Carolina SIP, and final approval would assure that power plants within North Carolina will remain sufficiently regulated to provide for continued maintenance as required by CAA section 175A.

With regard to emissions generated outside North Carolina which have the potential to impact the Greensboro Area, EPA notes several recent emissions reductions that have occurred or will occur in nearby states. First, On April 14, 2011, EPA announced a settlement with the Tennessee Valley Authority (TVA) to resolve alleged Clean Air Act violations at 11 of its coal-fired plants in Alabama, Kentucky, and Tennessee.¹¹ The settlement will require TVA to invest a TVA estimated \$3 billion to \$5 billion on new and upgraded state-of-the-art pollution

controls. When fully implemented, the pollution controls and other required actions will address 92 percent of TVA's coal-fired power plant capacity, reducing emissions of NO_x by 69 percent and SO₂ by 67 percent from TVA's 2008 emission levels. The settlement will also significantly reduce particulate matter and carbon dioxide (CO₂) emissions. The consent decree also requires that operation of 18 coal-fired units at the Johnsonville, John Sevier, and Widows Creek plants be phased out by 2017.

Second, the State of Georgia has recently passed a multi-pollutant rule to reduce NO_x and SO₂ emissions from many of its coal-fired EGUs.¹² Third, the consent decrees for Dominion Power¹³ and American Electric Power (AEP)¹⁴ in the Commonwealth of Virginia require further controls of NO_x and SO₂ emissions at those power plants. On April 21, 2003, the Department of Justice and EPA announced a settlement against Virginia Electric and Power Company (VEPCO a subsidiary of Dominion Resources, Inc.). This settlement requires VEPCO, one of the nation's largest coal-fired electric utilities, to install new pollution control equipment and to upgrade existing controls on several units in its system, thus resulting in substantial air pollution reductions. The settlement covers eight VEPCO plants, six in Virginia and two in West Virginia, comprising twenty electricity-generating units. These eight plants emitted over 350,000 tons of SO₂ and NO_x in 2000. The settlement will reduce these emissions to approximately 86,500 tpy SO₂ and 26,000 tpy NO_x. On October 9, 2007, the United States, along with eight individual states and thirteen citizen groups, announced a settlement agreement with AEP that that mandates emissions reductions at sixteen of AEP's coal-fired power plants (46 units) located in Indiana, Kentucky, Ohio, Virginia, and West Virginia. NO_x emissions from subject plants will be reduced by greater than 68 percent by 2016 as compared to 2006 levels. Likewise, by 2018 SO₂ emissions will

decrease by greater than 78 percent as compared to 2006 levels.

Finally, EPA has recently finalized the CSAPR to regulate interstate transport of power plant emissions. EPA's modeling for the final rule indicates that the Greensboro Area would maintain the NAAQS into the future in the absence of the rule. The 2012 base case run, which simulates air quality without CAIR and without a transport rule, assumes a 4 million ton increase in SO₂ regionally. A 2014 base case run also assumes no CAIR, but does include additional enforceable controls that are required to occur between 2012 and 2014. Based on these modeling assessments, PM_{2.5} concentrations in the Greensboro Area are still projected to decrease to 13.5 µg/m³ in 2012 and 13.1 µg/m³ in 2014. Though not necessary for demonstrating attainment and maintenance in the Greensboro Area, the final CSAPR will result in additional reductions of NO_x and SO₂ emissions that cross state lines. EPA estimates that by 2014, power plants in the covered states will reduce annual emissions of SO₂ by about 2.2 million tons beyond what would have been achieved at that time under CAIR. By 2014, we estimate that NO_x emissions in covered states will be about 500,000 tons lower than emissions would have been under CAIR.

Based on the analysis described above, EPA has concluded that impacts on air quality from emissions transported across State lines have been adequately addressed for the Greensboro Area and that the Greensboro Area will maintain the annual PM_{2.5} standard through 2021. Furthermore, the final CSAPR mandates even greater reductions than have already occurred and, more importantly, any reductions in PM_{2.5} in the Greensboro Area from the final CSAPR will be in excess of those needed to maintain the Annual PM_{2.5} NAAQS.

A maintenance plan requires the State to show that projected future year emissions will not exceed the level of emissions which led the Area to attain the NAAQS. North Carolina has projected emissions as described previously and determined that emissions in the Greensboro Area will remain below those in the attainment year inventory until 2021.

As discussed further in section VII of this proposed rulemaking, a safety margin is the difference between the attainment level of emissions (from all sources) and the projected level of emissions (from all sources) in the maintenance plan. The attainment level of emissions is the level of emissions during one of the years in which the

¹² Georgia Rule 391-3-1-.02(2)(uuu), "SO₂ Emissions from Electric Utility Steam Generating Units," was first adopted by the Georgia Board of Natural Resources January 28, 2009, with an amendment adopted June 24, 2009.

¹³ *U.S. et al v. Va. Elec. & Power Co.*, No. 1:03-cv-00517-LMB (E.D. Va. 2003) (Consent Decree), available at <http://www.epa.gov/compliance/resources/decrees/civil/caa/vepcocd.pdf>.

¹⁴ *U.S. et al v. American Elec. Power Serv. Corp.*, No C2-99-1250 (E.D. Ohio 2007) (Consent Decree), available at <http://www.epa.gov/compliance/resources/decrees/civil/caa/americanelectricpower-cd.pdf>.

¹⁰ EPA's National Emissions Inventory data is available on the Web site: <http://www.epa.gov/ttn/chief/eiinformation.html>. The acid rain database can be accessed on EPA's Clean Air Markets Division Web site: <http://www.epa.gov/airmarkets/>.

¹¹ *Alabama et al. v. TVA*, No. 3:11-CV-00170, (E.D. TN 2011) (Consent Decree), available at <http://www.epa.gov/compliance/resources/decrees/civil/caa/tvacoal-fired-cd.pdf>.

Area met the NAAQS. North Carolina has decided to allocate a portion of the available safety margin to the Area's PM_{2.5} and NO_x MVEBs for 2011 and 2021 for the Greensboro Area and has calculated the safety margin in its submittal. Specifically, a total of 1,383,638 kg/year (1,525 tpy)¹⁵ and 1,409,764 kg/year (1,554 tpy) of the available NO_x safety margins are allocated to the 2011 and 2021 MVEB, respectively. For PM_{2.5}, a total of 166,014 kg/year (183 tpy) and 354,708 kg/year (391 tpy) of the 2011 and 2010 safety margins were added to the Greensboro MVEBs. The remaining safety margins for NO_x are 3,722 tpy and 13,205 tpy for 2011 and 2021, respectively. The remaining safety margins for PM_{2.5} are 94 tpy and 528 tpy for 2011 and 2021, respectively. This allocation and the resulting available safety margin for the Greensboro Area are discussed further in section VII of this proposed rulemaking.

d. Monitoring Network

There are currently three monitors measuring PM_{2.5} in the Greensboro Area. The State of North Carolina, through DAQ, has committed to continue operation of the monitors in the Greensboro Area in compliance with 40 CFR part 58 and have thus addressed the requirement for monitoring. EPA approved North Carolina's 2010 monitoring plan on September 22, 2010.

e. Verification of Continued Attainment

The State of North Carolina, through DAQ, has the legal authority to enforce and implement the requirements of the Greensboro Area 1997 Annual PM_{2.5} 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_{2.5} attainment problems.

DAQ will track the progress of the maintenance plan by performing future reviews of triennial emission inventories for the Greensboro Area using the latest emissions factors, models and methodologies. For these periodic inventories, DAQ 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, the DAQ will re-project emissions for the Greensboro Area.

¹⁵ Conversion factor from grams to tons = 907,185 grams per ton.

f. Contingency Measures in the Maintenance Plan

The contingency measures are designed to promptly correct a violation of the NAAQS that occurs after redesignation. 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).

In the December 18, 2009, submittal, North Carolina affirms that all programs instituted by the State and EPA for PM control will remain enforceable and that sources are prohibited from reducing emissions controls following the redesignation of the Area. The contingency plan included in the December 18, 2009, submittal includes a 3-step triggering mechanism to determine when contingency measures are needed and a process of developing and implementing appropriate control measures. The secondary and tertiary triggers are pre-violation triggers and thus activation does not necessarily mean a violation of the actual annual PM_{2.5} NAAQS has occurred or will occur. The pre-violation triggers allow the State to begin evaluating the causes of increased ambient PM_{2.5} concentrations and take corrective action to prevent a future violation. In the contingency plan, North Carolina has committed to taking action on the activation of a primary or secondary trigger. These triggers and the actions resulting from them are discussed more fully below.

The primary trigger will occur when the certified 3-year average of the average annual ambient concentration is greater than 15.0 µg/m³ at any monitor in the maintenance area. The resulting trigger date will be 60 days after the date that the State observes an annual average concentration that, when averaged with the previous two annual average PM_{2.5} concentrations, would result in a 3-year design value greater than 15.0 µg/m³. North Carolina has

identified a secondary warning trigger to occur when the State finds that the rolling twelve-quarter average monitored PM_{2.5} levels exceed the PM_{2.5} NAAQS in the Greensboro Area (non-calendar year basis). The trigger date will be 60 days from the date that the State observes that the rolling 12-quarter average is greater than 15.0 µg/m³. A tertiary (third type of) trigger will be activated when a monitor in the Greensboro Area has an annual average greater than 15.0 µg/m³. In addition to the triggers indicated above, North Carolina will track regional emissions submitted annually for large sources or every three years for other sources through the Consolidated Emissions Reporting Rule and Air Emissions Reporting Rule and compare them to the projected inventories and attainment year inventory. North Carolina commits to review these emissions inventories and evaluate assumptions made to project emissions in the maintenance plan to determine if unexpected growth in NO_x, SO₂ or PM_{2.5} in the Area will jeopardize maintenance of the 1997 Annual PM_{2.5} NAAQS.

Once a primary or secondary trigger is activated, DAQ will commence analysis, including trajectory analysis, and emissions inventory assessment to determine emission control measures that will be required to attain or maintain the 1997 Annual PM_{2.5} NAAQS. PM_{2.5} speciation data from the speciation trends network monitors will also be reviewed to help determine which control measures would be most effective. If it is determined that the violation or exceedance of the PM_{2.5} NAAQS is due to sources outside of North Carolina, then DAQ will consult with EPA on its findings and determinations on what contingency measures will be implemented to reduce emissions. If EPA and DAQ agree that the violation or exceedance was due to sources outside of North Carolina, DAQ will consult with regulatory authorities from contributing up-wind sources to determine additional actions to be implemented.¹⁶

If DAQ determines that a violation or exceedance occurred due to sources within North Carolina, then by November 1 of the year following the year which caused the primary or secondary trigger activation, the State

¹⁶ In a letter dated May 20, 2011, North Carolina provided additional clarification on the timing and content of their contingency plan. In the letter, North Carolina clarified that it is their intent to take corrective measures to address a violation of the 1997 Annual PM_{2.5} NAAQS within 18–24 months of the violation. This letter is available in the docket EPA–R04–OAR–2009–1011 on the <http://www.regulations.gov> Web site.

will complete sufficient analysis to begin adoption of necessary rules for ensuring attainment and maintenance of the annual PM_{2.5} NAAQS. If the rules are still needed, they would become State effective within 7 months after the November 1 analysis (by the following July 1), unless legislative review is required. Each adopted rule will include a schedule that will require compliance with the rule no later than 2 years after adoption of the rule.

At least one of the following contingency measures will be adopted and implemented upon a primary or secondary triggering event:

- Continued implementation of previously adopted controls (NCCSA and diesel retrofits) which have not yet been realized but are sufficient to address the violation (and in excess of emissions reductions considered for maintenance);
- Reasonably Available Control Technology on stationary sources in the Greensboro Area;
- Diesel inspection and maintenance program;¹⁷
- Implementation of diesel retrofit programs, including incentives for performing retrofits;
- Additional controls in upwind areas within North Carolina.

When a tertiary trigger is activated, DAQ will commence analyses including meteorological evaluation, trajectory analyses, and emissions inventory assessment to understand why an annual exceedance of the standard has occurred. DAQ will work with the local air awareness program and develop an outreach plan to identify any additional voluntary measures that can be implemented and implement the plan during the following summer.

As designed, a tertiary trigger will always occur before a primary trigger because it is based on an annual average, whereas the primary trigger is based on an average of three consecutive annual averages. This means DAQ will commence analyzing the cause of higher ambient PM_{2.5} levels in the Area well before an actual NAAQS violation occurs. Further, a secondary trigger is likely to occur before a primary trigger

¹⁷ At this time, there is not an approved method for determining emission reductions from a Diesel Inspection and Maintenance program. Therefore, there is no technical basis to award emission credits for a heavy duty diesel inspection and maintenance program in the SIP. However, we do not want to preclude future technical changes that may make awarding such emission credits possible. If it is necessary to implement contingency measures for this area, North Carolina, in coordination with EPA, will evaluate the feasibility of this program as a contingency measure at that time. If a technical basis for emission credits is not available, other contingency measures will need to be implemented.

because it is determined at the end of each calendar quarter based on a rolling 12-quarter average. This means that if the Area were to experience a NAAQS violation, DAQ will have likely already commenced the process for adoption of control measures as described above. EPA is now making the preliminary determination that the contingency measures outlined above in North Carolina's contingency plan are adequate and ensure that the State will promptly correct any future violation of the 1997 Annual PM_{2.5} NAAQS in the Greensboro Area.

EPA has concluded that the maintenance plan adequately addresses the five basic components of a maintenance plan: Attainment inventory, maintenance demonstration, monitoring network, verification of continued attainment, and a contingency plan. Provided that EPA takes final rulemaking to approve the NCCSA, the maintenance plan SIP revision submitted by the State of North Carolina for the Greensboro Area meets the requirements of section 175A of the CAA and is approvable.

VII. What is EPA's analysis of North Carolina's proposed PM_{2.5} and NO_x MVEBs for the Greensboro 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. The 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 MVEB serves as a ceiling on emissions from an area's planned transportation system. The MVEB concept is further explained in the preamble to the November 24, 1993, Transportation Conformity Rule (58 FR 62188). The preamble also describes how to establish the MVEB in the SIP and how to revise the MVEB.

After interagency consultation with the transportation partners for the Greensboro Area, North Carolina has elected to develop separate MVEBs for PM_{2.5} and NO_x for each of the two counties in the Greensboro Area. North Carolina developed these MVEBs, as required, for the last year of its maintenance plan—2021. Additionally, the State of North Carolina has elected to develop MVEBs for the year 2011. The MVEBs reflect the total on-road emissions for 2011 and 2021, plus a safety margin that is based on an allocation from the available PM_{2.5} and NO_x safety margin. Under 40 CFR 93.101, the safety margin is the difference between the emissions level needed for attainment (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. These MVEBs and allocation from the safety margin were developed in consultation with the transportation partners and were calculated to account for uncertainties in population growth, changes in modeled vehicle miles traveled and new emission factor models. The PM_{2.5} and NO_x MVEBs for both Davison and Guilford Counties in the Greensboro Area are defined in Tables 7 and 8 below.

TABLE 7—DAVIDSON COUNTY MVEBS (KG/YEAR)

	2011	2021
NO_x Emissions (kg/year)		
On-road Mobile Emissions	3,714,921	1,790,782

TABLE 7—DAVIDSON COUNTY MVEBS (KG/YEAR)—Continued

	2011	2021
Safety Margin Allocated to MVEB	371,492	358,156
NO _x Conformity MVEB	4,086,413	2,148,938
PM_{2.5} Emissions (kg/year)		
On-road Mobile Emissions	109,769	54,431
Safety Margin Allocated to MVEB	43,544	98,882
PM _{2.5} Conformity MVEB	153,313	153,313

TABLE 8—GUILFORD COUNTY MVEBS (KG/YEAR)

	2011	2021
NO_x Emissions (kg/year)		
On-road Mobile Emissions	10,121,459	5,258,042
Safety Margin Allocated to MVEB	1,012,146	1,051,608
NO _x Conformity MVEB	11,133,605	6,309,650
PM_{2.5} Emissions (kg/year)		
On-road Mobile Emissions	299,371	166,015
Safety Margin Allocated to MVEB	122,470	255,826
PM _{2.5} Conformity MVEB	421,841	421,841

As mentioned above, the Greensboro Area has chosen to allocate a portion of the available safety margin to the PM_{2.5} and NO_x MVEBs for the years 2011 and 2021. A total of 1,383,638 kg/year (1,525 tpy) and 1,409,764 kg/year (1,554 tpy) of the available NO_x safety margins are allocated to the 2011 and 2021 MVEB, respectively. For PM_{2.5}, a total of 166,014 kg/year (183 tpy) and 354,708 kg/year (391 tpy) of the 2011 and 2021 safety margins are added to the Greensboro MVEBs. Thus, the remaining safety margins in 2011 and 2021 for PM_{2.5} are 94 tpy and 528 tpy, respectively. For NO_x, the remaining 2011 and 2021 safety margins are 3,722 tpy and 13,205 tpy, respectively.

Through this rulemaking, EPA is proposing to approve the MVEBs for PM_{2.5} and NO_x for 2011 and 2021, including the allocation from the PM_{2.5} and NO_x safety margins, for the Greensboro Area because EPA has made the preliminary determination that the Area maintains the 1997 Annual PM_{2.5}

NAAQS with the emissions at the levels of the budgets. Once the MVEBs for Davidson and Guilford Counties in the Greensboro Area are approved or found adequate (whichever is completed first), they must be used for future conformity determinations and the metropolitan planning organizations must use the MOVES model in future PM_{2.5} conformity determinations for their long-range transportation plans and transportation improvement programs. After thorough review, EPA has determined that the budgets meet the adequacy criteria, as outlined in 40 CFR 93.118(e)(4), and is proposing to approve the budgets because they are consistent with maintenance of the Annual PM_{2.5} NAAQS through 2021.

VIII. What is the status of EPA's adequacy determination for the proposed PM_{2.5} and NO_x MVEBs for 2011 and 2021 for the Greensboro area?

When reviewing submitted "control strategy" SIPs or maintenance plans containing MVEBs, 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 MVEB 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 a MVEB 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, "Conformity Guidance on Implementation of March 2, 1999, Conformity Court Decision." EPA adopted regulations to codify the adequacy process in the Transportation Conformity Rule Amendments for the "New 8-Hour Ozone and PM_{2.5} National Ambient Air Quality Standards and Miscellaneous Revisions for Existing Areas; Transportation Conformity Rule Amendments—Response to Court Decision and Additional Rule Change," on 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," 68 FR 38974, 38984 (June 30, 2003).

As discussed earlier, North Carolina's maintenance plan submission includes PM_{2.5} and NO_x MVEBs for both counties that comprise the Greensboro Area for the years 2011 and 2021. EPA reviewed both the PM_{2.5} and NO_x MVEBs through the adequacy process. The North Carolina SIP submission, including the Greensboro Area PM_{2.5} and NO_x MVEBs, was open for public comment on EPA's adequacy Web site on November 23, 2010, found at: <http://www.epa.gov/otaq/stateresources/transconf/currsips.htm>. The EPA public comment period on adequacy of the PM_{2.5} and NO_x MVEBs for 2011 and 2021 for Greensboro Area closed on December 23, 2010. EPA did not receive any comments on the adequacy of the MVEBs, nor did EPA receive any requests for the SIP submittal.

In a letter sent on February 2, 2011, EPA notified North Carolina DAQ that the MOVES based sub-area 2011 and 2021 MVEBs for the Greensboro Area were determined to be adequate for transportation conformity purposes. On May 2, 2011, EPA published its adequacy notice in the **Federal Register** (76 FR 24472). When EPA finds the 2011 and 2021 MVEBs adequate or approves them, the new MVEBs for PM_{2.5} and NO_x must be used for future transportation conformity determinations. For required regional emissions analysis years prior to 2011, the applicable budgets are the 2009 MVEBs from the attainment demonstration, which have already been found adequate through another action. (75 FR 9204 and 75 FR 26751). For required regional emissions analysis years that involve 2011–2020, the applicable budgets will be the new 2011 MVEBs. For required regional emissions analysis years that involve 2021 or beyond, the applicable budgets will be the new 2021 MVEBs. The 2011 and 2021 MVEBs are defined in section VII of this proposed rulemaking.

IX. What is EPA's analysis of the proposed 2008 base year emissions inventory for the Greensboro area?

As discussed in section VI above, section 172(c)(3) of the CAA requires areas to submit a comprehensive, accurate and current emissions inventory. As part of North Carolina's request to redesignate the Greensboro Area, the State submitted a 2008 base year emissions inventory to meet this requirement. Emissions contained in the submittal cover the general source categories of point sources, area sources, on-road mobile sources, and non-road mobile sources. All emission summaries

were accompanied by source-specific descriptions of emission calculation procedures and sources of input data. On December 22, 2010, DAQ provided EPA with a supplemental SIP revision to update the on-road mobile emissions

by replacing the on-road mobile emissions that were prepared with MOBILE6.2 with on-road emissions that were prepared using the new MOVES emissions model. North Carolina's submittal documents 2008 emissions in

the Greensboro Area in units of tpy. Table 9 below provides a summary of the 2008 emissions of direct PM_{2.5}, NO_x, and SO₂ for the Greensboro Area. For emissions in other years, refer to Tables 3 through 5.

TABLE 9—GREENSBORO AREA 2008 EMISSIONS FOR PM_{2.5}, NO_x, AND SO₂ (TPY [PERCENT TOTAL])

Source	PM _{2.5}	NO _x	SO ₂
Point Source Total	241 [8.1]	1,072 [3.8]	735 [12.0]
Area Source Total	1,768 [59.4]	1,826 [6.4]	5,112 [83.6]
On-Road Mobile Source Total	634 [21.3]	19,766 [69.7]	147 [2.4]
Non-Road Mobile Source Total	335 [11.2]	5,695 [20.1]	121 [2.0]
Total for all Sources	2,978	28,359	6,115

In today's notice, EPA is proposing to approve this 2008 base year inventory as meeting the section 172(c)(3) emissions inventory requirement.

X. Proposed Actions on the Redesignation Request and Maintenance Plan SIP Revisions Including Approval of the PM_{2.5} and NO_x MVEBs for 2011 and 2021 for the Greensboro Area

EPA previously determined that the Greensboro Area was attaining the 1997 PM_{2.5} NAAQS on January 4, 2010, at 75 FR 54. EPA is now taking four separate but related actions regarding the Area's redesignation and maintenance of the 1997 Annual PM_{2.5} NAAQS. Three of the actions are discussed in this section and the fourth is discussed in the next section.

First, EPA is proposing to determine, based on complete, quality-assured and certified monitoring data for the 2007–2009 monitoring period, and after review of preliminary data in AQS for 2008–2010, that the Greensboro Area continues to attain the 1997 Annual PM_{2.5} NAAQS. Provided that EPA takes final action to approve the NCSSA and, under section 172(c)(3), the 2008 base emissions inventory, EPA is proposing to determine that the Greensboro Area has met the criteria under CAA section 107(d)(3)(E) for redesignation from nonattainment to attainment for the 1997 Annual PM_{2.5} NAAQS. On this basis, EPA is proposing to approve North Carolina's redesignation request for the Greensboro Area.

Second, EPA is proposing to approve North Carolina's 2008 emissions inventory for the Greensboro Area (under section CAA 172(c)(3)). North Carolina selected 2008 as the attainment emissions inventory year for the Greensboro Area. This attainment inventory identifies a level of emissions in the Area that is sufficient to attain the 1997 Annual PM_{2.5} NAAQS and also is

a current, comprehensive inventory that meets the requirements of section 172(c)(3).

Third, subject to final approval of the NCCSA rules, EPA is proposing to approve the maintenance plan for the Greensboro Area, including the PM_{2.5} and NO_x MVEBs for 2011 and 2021 submitted by North Carolina for the Greensboro Area, as meeting the requirements of section 175A of the CAA. The maintenance plan demonstrates that the Area will continue to maintain the 1997 Annual PM_{2.5} NAAQS, and the budgets meet all of the adequacy criteria contained in 40 CFR 93.118(e)(4) and (5). Further, as part of today's action, EPA is describing the status of its adequacy determination for the PM_{2.5} and NO_x MVEBs for 2011 and 2021 in accordance with 40 CFR 93.118(f)(1). On May 2, 2011, EPA published its adequacy notice in the **Federal Register** (76 FR 24472). Within 24 months from the effective date of EPA's adequacy determination, the transportation partners will need to demonstrate conformity to the new PM_{2.5} and NO_x MVEBs pursuant to 40 CFR 93.104(e).

If finalized, approval of the redesignation request would change the official designations of Davidson and Guilford Counties in the Greensboro Area for the 1997 Annual PM_{2.5} NAAQS, found at 40 CFR part 81, from nonattainment to attainment. EPA is also proposing to approve into the North Carolina SIP the maintenance plan for the Greensboro Area, the emissions inventory submitted with the maintenance plan, and the 2011 and 2021 MVEBs. EPA is proposing to take these actions if and when EPA finalizes, after notice and comment rulemaking, its approval of the NCSSA rules as a revision to the North Carolina SIP.

XI. Proposed Action on the Determination That the Greensboro Area Has Attained the 1997 PM_{2.5} NAAQS by Its Applicable Attainment Date

The fourth action EPA is proposing today is to determine, based on quality-assured and certified monitoring data for the 2007–2009 monitoring period, that the Greensboro Area attained the 1997 Annual PM_{2.5} NAAQS by its applicable attainment date of April 5, 2010. This determination is being proposed in accordance with section 179(c)(1) of the CAA and EPA regulations.

XII. 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. 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 this reason, these proposed actions:

- Are not "significant regulatory action[s]" subject to review by the Office of Management and Budget under

Executive Order 12866 (58 FR 51735, October 4, 1993);

- 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 (Pub. L. 104-4);

- Do not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);

- Are not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);

- Are not a significant regulatory action 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

- Do not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects

40 CFR Part 52

Environmental protection, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements, and Particulate matter.

40 CFR Part 81

Environmental protection, Air pollution control.

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

Dated: September 2, 2011.

A. Stanley Meiburg,

Acting Regional Administrator, Region 4.

[FR Doc. 2011-24644 Filed 9-23-11; 8:45 am]

BILLING CODE 6560-50-P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

44 CFR Part 67

[Docket ID FEMA-2011-0002; Internal Agency Docket No. FEMA-B-1216]

Proposed Flood Elevation Determinations

AGENCY: Federal Emergency Management Agency, DHS.

ACTION: Proposed rule.

SUMMARY: Comments are requested on the proposed Base (1% annual-chance) Flood Elevations (BFEs) and proposed BFE modifications for the communities listed in the table below. The purpose of this proposed rule is to seek general information and comment regarding the proposed regulatory flood elevations for the reach described by the downstream and upstream locations in the table below. The BFEs and modified BFEs are a part of the floodplain management measures that the community is required either to adopt or to show evidence of having in effect in order to qualify or remain qualified for participation in the National Flood Insurance Program (NFIP). In addition, these elevations, once finalized, will be used by insurance agents and others to calculate appropriate flood insurance premium rates for new buildings and the contents in those buildings.

DATES: Comments are to be submitted on or before December 27, 2011.

ADDRESSES: The corresponding preliminary Flood Insurance Rate Map (FIRM) for the proposed BFEs for each community is available for inspection at the community's map repository. The respective addresses are listed in the table below.

You may submit comments, identified by Docket No. FEMA-B-1216, to Luis Rodriguez, Chief, Engineering Management Branch, Federal Insurance and Mitigation Administration, Federal Emergency Management Agency, 500 C Street, SW., Washington, DC 20472, (202) 646-4064, or (e-mail) luis.rodriquez1@dhs.gov.

FOR FURTHER INFORMATION CONTACT: Luis Rodriguez, Chief, Engineering Management Branch, Federal Insurance and Mitigation Administration, Federal Emergency Management Agency, 500 C Street, SW., Washington, DC 20472, (202) 646-4064, or (e-mail) luis.rodriquez1@dhs.gov.

SUPPLEMENTARY INFORMATION: The Federal Emergency Management Agency

(FEMA) proposes to make determinations of BFEs and modified BFEs for each community listed below, in accordance with section 110 of the Flood Disaster Protection Act of 1973, 42 U.S.C. 4104, and 44 CFR 67.4(a).

These proposed BFEs and modified BFEs, together with the floodplain management criteria required by 44 CFR 60.3, are the minimum that are required. They should not be construed to mean that the community must change any existing ordinances that are more stringent in their floodplain management requirements. The community may at any time enact stricter requirements of its own or pursuant to policies established by other Federal, State, or regional entities. These proposed elevations are used to meet the floodplain management requirements of the NFIP and also are used to calculate the appropriate flood insurance premium rates for new buildings built after these elevations are made final, and for the contents in those buildings.

Comments on any aspect of the Flood Insurance Study and FIRM, other than the proposed BFEs, will be considered. A letter acknowledging receipt of any comments will not be sent.

National Environmental Policy Act. This proposed rule is categorically excluded from the requirements of 44 CFR part 10, Environmental Consideration. An environmental impact assessment has not been prepared.

Regulatory Flexibility Act. As flood elevation determinations are not within the scope of the Regulatory Flexibility Act, 5 U.S.C. 601-612, a regulatory flexibility analysis is not required.

Executive Order 12866, Regulatory Planning and Review. This proposed rule is not a significant regulatory action under the criteria of section 3(f) of Executive Order 12866, as amended.

Executive Order 13132, Federalism. This proposed rule involves no policies that have federalism implications under Executive Order 13132.

Executive Order 12988, Civil Justice Reform. This proposed rule meets the applicable standards of Executive Order 12988.

List of Subjects in 44 CFR Part 67

Administrative practice and procedure, Flood insurance, Reporting and recordkeeping requirements.

Accordingly, 44 CFR part 67 is proposed to be amended as follows:

PART 67—[AMENDED]

1. The authority citation for part 67 continues to read as follows: