

Rocky Mount, North Carolina 8-hour Ozone Redesignation to Attainment

Effective Update Date: 01/06/07 (71 FR 64891, 11/06/06)

Background of the Plan: On July 18, 1997, EPA issued a new 8-hour ozone standard of 0.08 parts per million (ppm). This new standard is more protective than the previous 1-hour ozone standard, and as such replaces it. The Clean Air Act (CAA) requires EPA to designate as nonattainment any area that was violating the 1997 8-hour ozone standard based on the three most recent years of ambient air quality data. Rocky Mount, North Carolina, was one of those areas that were found to be in nonattainment with the new ozone standard, based on air quality data from the years 2001 to 2003. On June 19, 2006, the State of North Carolina requested redesignation to attainment for the 1997 8-hour ozone standard for the Rocky Mount, North Carolina area. The redesignation request included three years of complete, quality-assured ambient air quality data for the ozone seasons of 2003 through 2005, and a 12-year maintenance plan, to demonstrate the ability to continue to maintain attainment with the 8-hour NAAQS. EPA approved the redesignation request and the accompanying maintenance plan on November 6, 2006.

Summary of the Plan: This State Implementation Plan (SIP) revision relied on an attainment level of emissions of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) to maintain the 8-hour ozone standard through a combination of control measures. These measures include both stationary and mobile source controls. In order for EPA to redesignate an area to attainment, that area must meet the requirements of section 107(d)(3)(E) of the CAA. Specifically, the CAA specifies five requirements that must be met to redesignate an area to attainment. They are as follows:

1. The area must meet the applicable national ambient air quality standard (NAAQS).
2. The area must have a fully approved SIP under section 110(k).
3. The area must show improvement in air quality due to permanent and enforceable reductions in emissions.
4. The area must meet all applicable requirements under section 110 and part D of the CAA.
5. The area must have a fully approved maintenance plan pursuant to section 175A.

The State of North Carolina has demonstrated compliance with the aforementioned criteria. Additionally it has committed to periodically update the emissions inventory to ensure maintenance of the standard and to implement certain contingency measures if the emissions level is exceeded or the standard is violated.

Control Measures:

1. EPA's Tier 2 Vehicle Standards
2. EPA's Heavy-Duty Gasoline and Diesel Highway and Vehicle Standards
3. Federal controls on non-road spark ignition engines and recreational engine standard engines in 2003
4. State Clean Air Bill
5. State NO_x SIP Call Bill

6. State Clean Smokestacks Act
7. State Open Burning Ban
8. State Air Toxics Control Program
9. Prevention of Significant Deterioration
10. State Heavy Duty Diesel Gap Filling Rule
11. Air Awareness Program

Motor Vehicle Emissions Budget (MVEB):

MVEB (tons per day)

Year	NOX
2008	13.80
2017	6.53

Contingency Measures: Contingency plan provisions are designed to promptly correct a NAAQS violation that occurs after redesignation. In North Carolina’s June 19, 2006 submittal, the State of North Carolina commits to begin adoption of the necessary rules for ensuring attainment and maintenance of the 8-hour ozone NAAQS. Specifically, the Area will consider one or more of the following contingency measures to re-attain the standard:

1. Reasonably Available Control Technology for NO_x on stationary sources in Nash and Edgecombe counties.
2. Diesel Inspection and maintenance program
3. Implementation of diesel retrofit programs, including incentives for performing retrofits
4. Implementation of additional controls in upwind areas.

Emissions Reductions Update: The updated emissions inventories for NO_x and VOC are shown in the table below, and reflect projected emissions reductions from the base year levels (2005).

Rocky Mount, North Carolina 8-Hour Ozone Maintenance Area Emissions Inventory
(Tons per Day)

	2005	2008	2011	2014	2017
VOC Total Emissions	28.69	28.10	28.18	28.62	28.62
VOC Safety Margin	n/a	0.59	0.51	0.07	0.07
NOX Total Emissions	25.04	21.37	18.11	15.27	13.41
NOX Safety Margin	n/a	3.67	6.93	9.77	11.63

Federal Register: (71 FR 64906, 11/06/06), North Carolina; Redesignation of the Rocky Mount 8-hour Ozone Nonattainment Area to Attainment – Proposed Rule; (71 FR 64891, 11/06/06) North Carolina; Redesignation of the Rocky Mount 8-hour Ozone Nonattainment Area to Attainment – Direct Final Rule.

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