

## **Charlotte/Gastonia, North Carolina Ozone Attainment and Maintenance Plan**

Effective Redesignation Date: 7/5/95 (60 FR 34859, 7/5/95)

**Background of the Plan:** Under section 107 (d) (1) (C), EPA designated Mecklenburg County of the Charlotte-Gastonia area as nonattainment by operation of law with respect to ozone because the area was designated nonattainment immediately before November 15, 1990 and classified as moderate. The nonattainment area was expanded to include Gaston County per section 107 (d) (1) (A) (i). The moderate nonattainment area had ambient monitoring data that showed no violations of the ozone National Ambient Air Quality Standard (NAAQS) during the period from 1990 through 1993. Therefore, on November 12, 1993, the State of North Carolina through the North Carolina Department of Environment, Health, and Natural Resources submitted an ozone (O<sub>3</sub>) maintenance plan and requested redesignation of the area to attainment with respect to the ozone NAAQS.

**Summary of the Plan:** The State Implementation Plan (SIP) relies on an attainment level of emissions of volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>) to maintain the ozone standard through a combination of control measures. These measures include both stationary and mobile source controls. On January 24, 1994, Region 4 determined that the information received from the State constituted a complete redesignation request under the general completeness criteria of 40 CFR 51, appendix V, sections 2.1 and 2.2. Subsequently, on December 16, 1994, and January 6, 1995, the State submitted additional information that refined the modeling and clarified the future measures needed to ensure maintenance of the O<sub>3</sub> NAAQS. The State requested that the January 6, 1995 information be parallel processed and after the public hearing on April 19, 1995, the State made a final submittal to EPA on May 23, 1995. The redesignation request for the Charlotte-Gastonia moderate ozone nonattainment area meets the requirements of section 107 (d) (3) (E) for redesignation to attainment. Therefore, the EPA approved the State of North Carolina's request to redesignate to attainment the Charlotte-Gastonia area and maintenance plan. EPA approved the redesignation request on July 5, 1995.

**Control Measures:** A variety of control measures will be utilized and enforced such as:

- Reasonably Available Control Technology (RACT)
- Motor Vehicle Inspection and Maintenance (I/M)
- New Source Review
- Burning Bans
- Control of NO<sub>x</sub> for the Transcontinental Natural Gas Pumping Station

**Contingency Measures:** The State of North Carolina has provided contingency measures with a schedule for implementation in the event of a future ozone air quality problem. The actual measures will be determined from the analysis process described in the Verification of Continued Attainment. The measures analyzed will include RACT or greater level control for NO<sub>x</sub> and VOC sources, particularly Duke Power and Transcontinental Gas Pipe Line Corporation, Stage II vapor control for gasoline dispensing facilities, Reformulated Gasoline, enhancements to the I/M program, clean fuel fleet program, transportation control measures, and any other appropriate and feasible measures. The contingency plan for the Charlotte-Gastonia area has two triggers; the first trigger is a violation of the ozone NAAQS and the second is the exceedance of the ozone

standard that would indicate a violation would be imminent. A complete description of these contingency measures and their triggers can be found in the State's submittal.

**Motor Vehicle Emissions Budgets:** The applicable MVEB for Mecklenburg County (location of the city of Charlotte), for VOCs was 25.5 tons/day in 1999 and in 2005 is 25.9 tons/day. The applicable MVEB for Mecklenburg County for NO<sub>x</sub> was 33.5 tons/day in 1999 and in 2005 is 33.0 tons/day. The applicable MVEB in Gaston (location of the city of Gastonia), for VOCs in 1999 was 6.3 tons/day. and in 2005 is 5.7 tons/day. The applicable MVEB for Gaston County for NO<sub>x</sub> in 1999 was 9.3 tons/day and in 2005 is 8.7 tons/day.

**Emission Reductions:** The reduction of fuel volatility from 10.6 psi in 1987 to less than 9.0 in 1990, and finally to less than 7.8 psi beginning with the summer of 1992, as measured by the Reid Vapor Pressure (RVP), and fleet turnover due to the Federal Motor Vehicle Control Program (FMVCP) produced the most significant decreases in VOC emissions. The reduction in VOC emissions due to the mobile source regulations from 1987 to 1990 is 26.01 tons per day (29.63%). According to the adopted Conformity Emissions Budget submitted by the State of North Carolina, from 1999-2005, the total reduction of mobile VOCs will be 0.4 tons/day in Mecklenburg County and 0.6 tons/day in Gaston County. From 1999-2005 there will be a total reduction of NO<sub>x</sub> by 0.5 tons/day in Mecklenburg County and 0.6 tons/day in Gaston County.

**Federal Register Actions:**

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