

Nashville, Tennessee Ozone Attainment and Maintenance Plan

Effective Redesignation Date: 10/30/96 (61 FR 55903, 10/30/96)

Background of the Plan: Under section 107 (d) (1) (C), EPA designated the Nashville area as nonattainment by operation of law with respect to ozone (O₃) because the area was designated nonattainment immediately before November 15, 1990 with a moderate classification. The Nashville O₃ nonattainment area consists of Davidson, Rutherford, Sumner, Williamson, and Wilson counties. During the period from 1992 through 1995, the moderate nonattainment area had ambient monitoring data that showed no violations of the O₃ National Ambient Air Quality Standard (NAAQS). Therefore, in an effort to comply with the CAA and to ensure continued attainment of the NAAQS, on November 14, 1994, the State of Tennessee, through the Tennessee Department of Environment and Conservation (TDEC), submitted an O₃ maintenance plan and requested redesignation of the Middle Tennessee (Nashville) area from moderate nonattainment to attainment with respect to the O₃ 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_x) to maintain the ozone standard through a combination of control measures. These measures include both stationary and mobile source controls. On March 13, 1995, Region 4 determined that the information received from the State constituted a complete redesignation request under the general completeness criteria of 40 CFR part 51, appendix V, sections 2.1 and 2.2. On August 9, 1995 and January 19, 1996 the state submitted supplementary information which included revised contingency measures and emissions projections. In the final action the EPA approved the Nashville O₃ maintenance plan, including the 1990 baseline inventory and the 1994 base year inventory because it meets the requirements of section 175A. The EPA redesignated the Nashville area to attainment for O₃ because the State of Tennessee demonstrated compliance with the requirements of section 107 (d) (3) (E) for redesignation.

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

- Reasonably Available Control Technology (RACT) on sources covered by new Control Technical Guideline (CTG) categories
- Reid Vapor Pressure (RVP) of gasoline
- Federal Motor Vehicle Control Program (FMVCP)
- Inspection/Maintenance (I/M) Program

Contingency Measures: Tennessee provided contingency measures with a schedule for implementation in the event of a future O₃ air quality problem. This information was included in the maintenance plan. The contingency plan for the Nashville area is triggered by three indicators; violation of the O₃ NAAQS, the monitored ambient levels of O₃ exceed 0.12 parts per million (ppm) more than once in any year at any site in the nonattainment area, or the level of total VOC or NO_x emissions has increased above the attainment level in 1994 by ten percent or more. In the case of a violation of the O₃ NAAQS, the plan contains a contingency to implement additional control measures such as lower Reid Vapor Pressure for gasoline, lowering the threshold applicability for major stationary VOC and NO_x sources from 100 tons per year (tpy) to 50 (tpy), and application of RACT on sources covered by new CTG categories. Any additional

measures taken by Tennessee will be implemented within 18 months of the trigger date. 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 the Nashville area for VOCs in 2002 was 52.90 tons/day and in 2006 is 53.17 tons/day. The applicable MVEB for the Nashville area for NO_x in 2002 was 96.25 tons/day and in 2006 is 96.60 tons/day.

Emission Reductions: The reduction of fuel volatility to 9.5 psi in 1989, and finally to 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 1990 to 1994 was 27.14 tons per day (28.6). The VOC emissions in the base year were not artificially low due to economic downturn. The State of Tennessee submitted comprehensive inventories of VOC, NO_x, and CO emissions from the Nashville area. Although both the 1990 and 1994 baseline inventories were approved, Tennessee had not attained the O₃ standard in 1990. Therefore, 1994 was used as the base year in this redesignation. The area wide VOC emissions inventory for baseline year 1994 was 188.31 tons/day with a total reduction of 3.58 percent by 2006. The area wide NO_x emissions inventory for baseline year 1994 was 290.24 tons/day with a total reduction of 16.76 percent by 2006. The projections show that VOC and NO_x emissions are not expected to exceed the level of the base year inventory during the 1994-2006 period.

Federal Register Actions:

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