

Ozone Redesignation Request and Maintenance Plan Fact Sheet

On October 5, 2000, the Regional Air Quality Council approved the "Ozone Redesignation Request and Maintenance Plan for the Denver Metropolitan Area" and submitted it to the state Air Quality Control Commission for their review and consideration. The plan requests the U.S. Environmental Protection Agency (EPA) to redesignate the Denver metropolitan nonattainment area to attainment status for the 1-hour Ozone National Ambient Air Quality Standard.

Designation History

Ozone is formed when Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NO_x) react in the presence of sunlight. When present in the lower atmosphere, even at low concentrations, it can be harmful to human health and property.

The Denver metropolitan area was originally designated by the EPA as a nonattainment area for ozone in 1978. The one-hour ozone standard allows not more than 0.12 parts per million (ppm) of ozone in ambient air, averaged over one hour. Since 1988, the Denver region has not violated the EPA's 1-hour standard and so is eligible for redesignation to attainment.

A redesignation request and 1-hour ozone maintenance plan for the Denver metro area was originally submitted to EPA in 1996. However, during the plan review period, the EPA established a new 8-hour standard and revoked the 1-hour standard. The 8-hour standard would have allowed not more than 0.08 ppm of ozone in ambient air averaged over an 8-hour period. Due to legal problems with implementing the 8-hour standard, though, the EPA reinstated the 1-hour standard on July 20, 2000. In order to be redesignated to attainment, the EPA informed the region that it would have to update and revise its 1996 plan.

Redesignation Requirements

The State of Colorado must meet several requirements for the Denver metropolitan area to be redesignated as an attainment area for ozone:

Attainment of the 1-hour ozone standard – Based on monitoring data since 1988, the region has demonstrated that it has not violated the 1-hour standard.

Approval of the ozone nonattainment State Implementation Plan (SIP) – A comprehensive nonattainment SIP, which was first submitted in 1982, was finally approved by the EPA on June 26, 1992.

Improvement in air quality due to permanent and enforceable emission reductions – The existing control measures that have brought the Denver metro area into attainment with the 1-hour ozone standard include a mix of federal tailpipe standards, the state's vehicle inspection/maintenance program and industrial source control regulations.

Demonstration of specific requirements of the Clean Air Act – All the requirements of Section 110 and Part D have been met, including general, ozone-specific and transportation conformity provisions.

Maintenance Plan Components

The "Ozone Redesignation Request and Maintenance Plan for the Denver Metropolitan Area" compares projected 2006 and 2013 emissions with 1993 base emissions and demonstrates continued maintenance of the standard during this time period. The maintenance plan is a requirement for redesignation and must show maintenance of the standard for at least 10

years. Emission inventories show a steady downward trend in both VOC and NO_x emissions.

The maintenance plan contains control measures that the region is committed to implementing or continuing to keep the Denver metro area in attainment of the standard. The plan does not contain any new local measures, but relies on continued implementation of existing measures and on new federal programs to maintain the standard:

Federal tailpipe standards and regulations

– The main component of this measure is more stringent auto and truck standards. New National Low Emission Vehicle standards begin in 2001 and even more stringent Tier II/gasoline sulfur standards take effect in 2004. This measure also includes federal standards for small engines and non-road mobile sources.

Vehicle Inspection and Maintenance – As amended on January 10, 2000 and submitted to EPA May 10, 2000, this will be a combination remote sensing/clean screen and I/M240 testing program.

Industrial source control – These controls are based on state and federal regulations that require reasonably available control technology on industrial sources of VOCs. In the future, new or modified industrial sources will be subject to less stringent permitting requirements that take cost into account.

Reid Vapor Pressure limits – The maintenance plan requests that Reid Vapor Pressure limits for gasoline sold in the Denver area be permanently established at 9.0 pounds per square inch (10.0 psi for ethanol blends).

Transportation Control Measures – Transit improvements, rideshare programs, variable work hours for federal employees, a regional bike plan and HOV lanes on Santa Fe Drive are all measures that helped the region meet attainment standards.

In order to help reduce congestion during upcoming construction on I-25, the Colorado Department of Transportation (CDOT) is considering converting the Santa Fe HOV lanes to general purpose lanes. CDOT has proposed removing the HOV lanes from the SIP and replacing them with an equivalent measure to increase ridership on the Southwest light rail line. CDOT will only pursue this proposal if it can adequately demonstrate that the net effect will reduce the number of vehicle miles traveled.

As required by the Clean Air Act, the maintenance plan contains potential contingency measures that the Denver metropolitan area could enact should the region ever violate the ozone standard after redesignation to attainment status. These include:

- Making changes to the enhanced vehicle inspection and maintenance program;
- Reducing the Reid Vapor Pressure limit;
- Reinstating more stringent permitting requirements for industrial sources;
- Requiring the use of Reasonably Available Control Technologies for NO_x emissions; and
- Adopting regulations to control the sale and/or use of certain consumer and commercial products, architectural surface coatings and lawn and garden equipment.

The “Ozone Redesignation Request and Maintenance Plan for the Denver Metropolitan Area” is available online at www.raqc.org. For more information, please contact Ken Lloyd or Jerry Dilley at 303-629-5450.

