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Colorado Department  
of Public Health  
and Environment

## **Colorado Air Quality Control Commission**

### **State Implementation Plan Revisions**

### **Report**

**Submitted**

**to the**

**Colorado General Assembly**

**March 31, 2000**



The Colorado Air Quality Control Commission submits the following report describing the revisions made to the air quality State Implementation Plan, pursuant to the provisions of 25-7-133 C.R.S. The Commission appreciates the opportunity to present this review of the revisions it has made to the State Implementation Plan. This report includes revisions made in the time period from February 1998 through March 2000.

1. **Regulation Number 11: Motor Vehicle Emissions Inspection Program**  
- February 19, 1999
2. **Denver & Ft. Collins Periodic Carbon Monoxide Emission Inventories:**  
- April 15, 1999
3. **Regulation Number 14: Reduction of Motor Vehicle Air Pollutants from Alternative Fueled Vehicles**  
- August 19, 1999
4. **Denver Metropolitan Carbon Monoxide Nonattainment Area Redesignation:**  
- January 10, 2000
  - o Regulation Number 11: Motor Vehicle Emissions Inspection Program
  - o Regulation Number 13: Oxygenated Fuels Program
  - o Ambient Air Quality Standards
5. **Colorado Springs Carbon Monoxide Maintenance Plan Revisions:**  
- February 17, 2000
  - o Regulation Number 13: Oxygenated Fuels Program
6. **Regulation Number 9: The Reduction of Automotive Air Pollution in the Denver Region Through the Encouragement of Travel To and From Work by Public Transit, Ridesharing, and Other Emission Reducing Travel Modes**  
- February 17, 2000
7. **Pagosa Springs PM10 Nonattainment Area Redesignation:**  
- March 16, 2000
  - o Ambient Air Quality Standards Regulation
  - o State Implementation Plan Specific Regulation for Nonattainment Areas

8. **Telluride PM10 Nonattainment Area Redesignation:**
  - March 16, 2000
    - o Ambient Air Quality Standards Regulation
    - o State Implementation Plan Specific Regulation for Nonattainment Areas
9. **Regulation Number 12: Reduction of Diesel Vehicle Emissions**
  - March 16, 2000

As a part of this report the Commission is providing one copy of the technical information considered by the Commission in their decision making during the hearing. Also attached is a strike through/small cap version of the regulatory revisions that were adopted by the Commission.

## **STATE IMPLEMENTATION PLAN REVISIONS**

### **1. Regulation Number 11: Motor Vehicle Emissions Inspection Program**

On February 19, 1999, the Commission considered and adopted a proposal by staff to implement a statutory provision providing for the use of remote sensing as a method to test vehicle emissions of automobiles and light duty trucks. The staff proposal also contained revisions to the regulation to reflect statutory changes made to the requirements for testing vehicles that are inoperable at the time of sale or those vehicles typically identified as "tow-away" vehicles.

The remote sensing technology would be used to identify vehicles with emissions that were determined to be acceptable because they were below a certain limit. This approach to testing would use a (infrared) beam of light to identify air pollutant concentrations from the tailpipe of vehicles as they passed by the testing equipment. The testing equipment could be either mobile units that would be moved around to various representative locations in the metropolitan area or stationary units that would be fixed at a specific location. Program implementation would likely utilize a combination of these two approaches. Locations would be selected to provide a representative driving mode and vehicle emissions. The vehicle would pass through the beam of light, its emissions would be identified by that beam of light, and the license plate number would be recorded. If the emissions were identified to be below the accepted limit, vehicle registration information would be used to contact the vehicle owners and provide them an opportunity to forgo visiting a testing station for a traditional test.

The Commission considered and adopted this alternative testing technology in direct response to Legislative action set forth in 1998 Senate Bill 182. This bill provided that the local unit of government could opt-into the program if they determined it to be

appropriate. The bill did not require the implementation of this program; however, it did identify Larimer County and Greeley as areas for implementation of the program. The bill also established a fee for the program at no more than \$15.00.

The Commission also adopted revisions to the regulation to reflect changes made in statute in the 1998 legislative session in Senate Bill 46. These revisions require that the seller of an inoperable vehicle notify the purchaser in writing, before the sale is complete, that the vehicle is incapable of being tested. The seller is also required to use specific forms that are prepared by the Department of Revenue.

2. **Denver & Ft. Collins Periodic Carbon Monoxide Periodic Emission Inventories**

On April 15, 1999, the Commission considered and adopted three-year carbon monoxide emission inventories for 1) the Denver, and 2) the Fort Collins carbon monoxide nonattainment areas. These inventories are estimates of the amount of emissions that have been generated in the specific areas by all types of sources. These inventories are required to be generated and submitted to EPA every three years under the federal Clean Air Act for those areas that have historically exceeded the national ambient air quality standard for a given pollutant and been designated as nonattainment. These emission inventories make no changes to any regulatory requirement and are not used as a basis for regulatory development.

These inventories are used by EPA to provide an indication that the area is reducing its emissions and maintaining a downward trend in emissions. The emission inventories adopted by the Commission for both the Denver and Fort Collins carbon monoxide nonattainment areas do show a decreasing trend in emissions.

3. **Regulation Number 14: Reduction of Motor Vehicle Air Pollutants from Alternative Fueled Vehicles**

On August 19, 1999, the Commission considered and adopted a proposal to repeal this regulation in its entirety. The program had originally been established to ensure that motor vehicle emissions did not increase due to their conversion from gasoline to some form of alternative fuel. The program established a certification requirement for conversion kits that were available and for automotive technicians to install the kits.

The repeal of the program was proposed and adopted by the Commission due to changes in state and federal laws, the repeal of the alternative fuels financial incentive program, and the EPA policy implementing emission control tampering provisions of the Clean Air Act.

4. **Denver Metropolitan Nonattainment Area Redesignation:**
- o **Regulation Number 11: Motor Vehicle Emissions Inspection Program**
  - o **Regulation Number 13: Oxygenated Fuels Program**
  - o **Ambient Air Quality Standards Regulation**

On January 10, 2000 the Commission considered and adopted a proposal from the Denver Regional Air Quality Council to redesignate the Denver metropolitan carbon monoxide nonattainment area to attainment/maintenance status. Through this adoption the Commission made revisions to three different regulations and adopted a ten-year plan to demonstrate continued compliance with the national standard.

**Regulation Number 11: Motor Vehicle Emissions Inspection Program**

The motor vehicle emissions inspection program was revised for the Denver metro area to implement a remote sensing program that would attempt to identify and evaluate 80% of the vehicles in the program for the possibility of exempting them from a traditional vehicle emission test. This program would be phased in over a period of five years beginning 2002, being fully implemented in 2006. This revision to the State Implementation Plan also established more stringent emission limitations or standards for 1996 and newer vehicles in the program. The standards were made more stringent to offset the emission increases that were projected to result from implementation of the remote sensing program. The emission standards are made more stringent for the pollutants carbon monoxide, hydrocarbons (ozone precursors), and nitrogen oxides. These more stringent standards will be phased in with the remote sensing program. The newly adopted remote sensing program combined with the existing four model year exemption for new vehicles will ultimately exempt 60 - 70% of vehicles from traditional testing and save area motorists up to \$5 million dollars per year in reduced testing costs.

The overall structure of the inspection and maintenance program is not changed by the revisions adopted. However, these revisions attempt to reduce the regulatory burden of the program by providing motorists with a lower impact alternative to the traditional test if their vehicle is identified with acceptable emission levels through remote sensing.

**Regulation Number 13: Oxygenated Fuels Program**

The oxygenated fuels program was revised to reduce the amount of oxygenate that is required to be added to motor vehicle fuel supplied to the Denver metropolitan area during the winter time season when carbon monoxide has historically been at its highest concentrations. The oxygenated fuels program has been a primary carbon monoxide emissions control strategy for the Denver metropolitan area for many years. The goal of the program has been to reduce the amount of carbon monoxide emissions from motor vehicles by adding oxygen to the fuel to provide for a more thorough combustion process in the vehicle engine. Over the years, engine technology has improved the combustion process and reduced the amount of carbon monoxide being emitted from motor vehicles.

The proposal to reduce the amount of oxygenate added to fuels will be phased in over the

period of 2002 - 2006. The proposal adopted by the Commission will reduce the oxygenate requirement from 3.1% oxygenate today, to 1.5 % oxygenate in 2006 and keep it there until 2012. It would also increase the oxygen content again in 2012 to 1.7% and then again increase the oxygen content to 3.1% in 2019. However, it was anticipated by the Commission at the time of adoption that these later dates were included solely for federal transportation planning purposes and ultimately will not need to be implemented.

#### **Ambient Air Quality Standards Regulation**

The Commission also revised its Ambient Air Quality Standards regulation which is a part of the State Implementation Plan. This regulation was revised to actually change the designated classification of the area from nonattainment to attainment/maintenance. This simply indicates that we are now attaining the standard and have adopted a plan to maintain that standard for a period of ten years or longer.

The Ambient Air Quality Standards Rule was also revised to modify the mobile sources emission budget. The emission budget is the amount of emissions that are allowed to be generated from mobile sources for any given pollutant. We are required to adopt a mobile sources emission budget for transportation planning purposes and demonstrate that mobile source emissions that are generated from the implementation and use of federally funded highway projects do not adversely impact air quality compliance with federal standards (transportation conformity).

The budget that was proposed by the Regional Air Quality Council and adopted by the Commission is 800 tons of carbon monoxide emissions per day. This budget is reduced by 25 tons from the 825 tons per day budget the Commission had previously adopted. The budget was proposed to be reduced by 25 tons per day because of the changes to the inspection and maintenance program and the oxygenated fuel program demonstrated that the area could meet an 800 tons per day budget and because there is projected growth in nonmobile source emissions that must be accounted for into the future.

#### **5. Colorado Springs Carbon Monoxide Maintenance Plan Revision**

##### **o Regulation Number 13: Oxygenated Fuels Program**

##### **o Ambient Air Quality Standards Regulation**

##### **o State Implementation Plan for Nonattainment-Attainment/Maintenance Areas**

On February 17, 2000 the Commission considered and adopted a proposal from the Pikes Peak Area Council of Governments to revise its air quality maintenance plan to delete the requirement to use oxygenated fuels during the wintertime season when carbon monoxide has historically been at its highest concentration. The proposal adopted by the Commission also made changes to the Ambient Air Quality Standards regulation to establish a mobile sources emission budget and to the State Implementation Plan for Nonattainment Areas specific regulation to delete obsolete contingency measures.

### **Regulation Number 13: Oxygenated Fuels Program**

The Commission revised this regulation based on a demonstration that the area could safely delete either of their two primary carbon monoxide emission control strategies: inspection and maintenance or oxygenated fuels. The locally elected officials chose to eliminate the oxygenated fuels program. The rationale for choosing the elimination of this program was that it would be much easier to reinstate should there be an air quality problem in the future. The inspection and maintenance program would require a substantially greater amount of time to rebuild an infrastructure before it could be implemented.

### **Ambient Air Quality Standards Regulation**

The Commission also made changes to the mobile sources emission budget for the Colorado Springs area. The emission budget was increased from 212 tons per day to 270 tons per day. This increase provides a greater amount of flexibility to the Colorado Springs area in adopting transportation plans for the future.

### **State Implementation Plan for Nonattainment-Attainment/Maintenance Areas**

The Commission also made changes to this regulation to remove a contingency measure to further reduce monitored levels of the pollutant carbon monoxide. A contingency measure is a program to further reduce the ambient concentration of a pollutant should there be an exceedance of the standard. This contingency measure was the implementation of an "enhanced" vehicle inspection and maintenance program. This contingency measure was no longer needed and not required to be retained in the plan.

This State Implementation Plan revision is submitted to inform the Legislature of the activity; however, revisions of this nature were provided preapproval for submission to EPA in State statute in a 1999 amendment to Section 25-7-133.5(4) C.R.S.

### **6. Regulation Number 9:      **The Reduction of Automotive Air Pollution in the Denver Region Through the Encouragement of Travel To and From Work by Public Transit, Ridesharing, and other Emissions Reducing Travel Modes****

On February 17, 2000, the Commission considered and adopted a proposal to repeal this regulation in its entirety. The purpose of this regulation was to reduce air pollutant emissions from single occupancy vehicles through the encouragement of travel by public transit, ride sharing, and other emission reducing modes of travel. This regulation was adopted into the State Implementation Plan in 1979 as a control measure to help reduce the emissions of pollutants that lead to the formation of ozone.

Regulation Number 9 was specifically focused on the dissemination of information to educate employees of larger businesses on the alternatives to driving alone, and required

larger businesses to submit plans to the State to provide information regarding alternative forms of transportation. This regulation has effectively been replaced by a variety of voluntary programs that have emerged in today's transportation market. Programs such as "Ridearrangers" and Transportation Management Associations or TMAs have been very successful in promoting alternative modes of transportation with employees of large and smaller businesses. These are voluntary programs sponsored by organizations that effectively promote alternative modes of transportation as a business.

**7. Pagosa Springs PM10 Nonattainment Area Redesignation**

**o Ambient Air Quality Standards**

**o State Implementation Plan Specific Regulation for Nonattainment Areas**

On March 16, 2000, the Commission considered and adopted a proposal to redesignate the Pagosa Springs PM10 nonattainment area to attainment/maintenance status. This proposal is a plan to demonstrate compliance with the national standard for particulate matter that is ten micrometers and smaller. The Commission action also made revisions to the mobile sources emission budget and eliminated outdated regulatory requirements.

**Ambient Air Quality Standards**

Revisions to this regulation were made 1) to reflect the change in designation of the area from "nonattainment" to "attainment-maintenance", and 2) to modify the mobile source emission budget from 6,281 lbs/day to 7,100 lbs/day. The increase in the mobile sources emission budget was proposed to provide the area with flexibility to plan for future transportation improvements and maintain good air quality.

**State Implementation Plan Specific Regulation for Nonattainment Areas**

Revisions were made to this regulation 1) to delete obsolete road paving requirements (required paving was completed), 2) to eliminate unnecessary street sanding reporting requirements, and 3) to delete unnecessary contingency measures for additional street sweeping.

**8. Telluride PM10 Nonattainment Area Redesignation**

**o Ambient Air Quality Standards**

**o State Implementation Plan Specific Regulation for Nonattainment Areas**

On March 16, 2000, the Commission considered and adopted a proposal to redesignate the Telluride PM10 nonattainment area to attainment/maintenance status. This proposal is a plan to demonstrate compliance with the national standard for particulate matter that is ten micrometers and smaller. The Commission action also made revisions to the mobile sources emission budget and eliminated outdated regulatory requirements.

### **Ambient Air Quality Standards**

Revisions to this regulation were made 1) to reflect the change in designation of the area from "nonattainment" to "attainment/maintenance", and 2) to modify the mobile sources emission budget from 14,687 lbs/day to 9,414 lbs/day. The decrease in the mobile sources emission budget was proposed by the Town of Telluride because it provides the area with flexibility to plan for future transportation improvements and to maintain good air quality well into the future.

### **State Implementation Plan Specific Regulation for Nonattainment Areas**

Revisions were made to this regulation 1) to delete obsolete road paving requirements (required paving was completed), 2) to eliminate unnecessary street sanding reporting requirements, and 3) to delete unnecessary contingency measures for additional street sweeping.

## **9. Regulation Number 12: Reduction of Diesel Vehicle Emissions**

On March 16, 2000 the Commission considered and adopted a proposal to remove the Diesel Vehicle Emissions program from the State Implementation Plan for the areas of Colorado Springs, Ft. Collins, and Greeley. The program will be retained as a state only enforceable program in those areas. This program was identified as not being needed to meet the national air quality standards for those areas and was therefore removed from the federal program. The program will be retained in the State Implementation Plan in the Denver metro area because it has been included in the set of control measures to reduce particulate matter. The program requirements were not revised as a part of this Commission action.



