

Massachusetts; Boston Area Carbon Monoxide Redesignation to Attainment

Federal Register Dates:

January 30, 1996	Notice of Proposed Rulemaking, 61 FR 2981
January 30, 1996	Direct Final Rulemaking, 61 FR 2918

EPA Approval Date: The direct final rule approving the redesignation of the Boston area (Boston, Chelsea, Revere, Quincy, Cambridge, Everett, Malden, Medford, and Somerville) from nonattainment to attainment for carbon monoxide was effective on April 1, 1995.

In the same Federal Register action, EPA approved the Massachusetts 1990 base year emission inventory for carbon monoxide emissions (statewide), and an oxygenated fuel program (Boston consolidated metropolitan statistical area (CMSA)), which were also effective on April 1, 1995.

State Submittal:

On December 12, 1994, the Massachusetts Department of Environmental Protection submitted a request to redesignate the Boston Area carbon monoxide nonattainment area to attainment for carbon monoxide. As part of the redesignation request, the State submitted a maintenance plan as required by 175A of the Clean Air Act, as amended in 1990. Elements of the section 175A maintenance plan include a base year (1993 attainment year) emission inventory for carbon monoxide, a demonstration of maintenance of the carbon monoxide National Ambient Air Quality Standards (NAAQS) with projected emission inventories to the year 2010 for carbon monoxide, a plan to verify continued attainment, a contingency plan, and an obligation to submit a subsequent maintenance plan revision in 8 years as required by the Clean Air Act.

Massachusetts submitted evidence that public hearings were held on September 29, 1994 in Springfield and on September 30, 1994 in Boston.

Background/Prior Action:

The Boston carbon monoxide area, (also known as the “Boston - nine communities” carbon monoxide area), includes the following nine communities: in Middlesex County the Cities of Cambridge, Everett, Malden, Medford, and Somerville; in Norfolk County the City of Quincy; and in Suffolk County the Cities of Boston, Chelsea, and Revere.

In a March 15, 1991 letter to the EPA Region I Administrator, the Governor of Massachusetts recommended the Boston metropolitan area, which covers the nine surrounding cities (the “Boston area”), be designated as nonattainment for carbon monoxide as required by section 107(d)(1)(A) of the 1990 Clean Air Act Amendments (CAA) (Public Law 101–549, 104 Stat. 2399, codified at 42 U.S.C. 7401–7671q). The area was designated nonattainment and classified as “moderate” under the provisions outlined in sections 186 and 187 of the CAA. (See 56 FR 56694 (Nov. 6, 1991) and 57 FR 56762 (Nov. 30, 1992), codified at 40 CFR part 81, § 81.322.) Because the Boston area had a design value of 9.8 parts per million (based on 1986 data), the area was considered moderate. The CAA established an attainment date of December

31, 1995, for all moderate CO areas. The Boston area has ambient monitoring data showing attainment of the CO NAAQS, since 1988. Therefore, in an effort to comply with the CAA and to ensure continued attainment of the NAAQS, on December 12, 1994 the State of Massachusetts submitted a CO redesignation request and a maintenance plan for the Boston area.

The Massachusetts redesignation request for the Boston area meets the five requirements of section 107(d)(3)(E):

1. The area must have attained the applicable NAAQS;
2. The area must have a fully approved SIP under section 110(k) of CAA;
3. The air quality improvement must be permanent and enforceable;
4. The area must have a fully approved maintenance plan pursuant to section 175A of the CAA;
5. The area must meet all applicable requirements under section 110 and Part D of the CAA.

BOSTON CO ATTAINMENT AND MAINTENANCE PLAN EMISSIONS INVENTORY SUMMARY (TONS PER WINTER DAY) [This table reflects an August 29, 1997 MOBILE 5a modeling correction.]						
Year	Area	Nonroad	Mobile	Point	Total CO Inventory	Attainment Year Total minus Projection Year Total (Safety Margin)
1990	126.76	59.04	343.41	7.62	536.83	Not Applicable
1993 Attainment Year	128.32	59.823	305.43	7.96	501.53	Not Applicable
1995	129.35	60.344	266.13	8.19	464.004	37.526
2000	131.20	62.995	226.00	8.87	429.065	72.465
2005	134.39	64.961	217.54	9.69	426.581	74.959
2010 (Last Year of the Current CO Maintenance Plan.)	137.93	66.695	228.33	10.05	443.005	58.525

Summary:

EPA approved by direct final rule, the State of Massachusetts’ request to redesignate the Boston area (Cities of Boston, Cambridge, Chelsea, Everett, Malden, Medford, Quincy, Revere and Somerville) to attainment for carbon monoxide (CO), along with its maintenance plan and contingency measures, and incorporating it into the Massachusetts SIP.

Transportation Conformity Budgets:

By letter of August 26, 1997 to Barbara Kwetz, Director, Division of Air Quality Control, Massachusetts Department of Environmental Protection, EPA approved a submitted correction to the on-road mobile source carbon monoxide emission projections for the years 1995, 2000, 2005 and 2010. As the year 2010 is the last year of the current EPA-approved maintenance plan for the Boston Metropolitan Carbon Monoxide Maintenance area, EPA has determined that the projected 2010 on-road mobile source carbon monoxide emission level of 228.33 tons per winter

day, should be used as the default carbon monoxide motor vehicle emission budget for all future transportation conformity determinations in the Boston Metropolitan Carbon Monoxide Maintenance area. The carbon monoxide value of 228.33 tons per winter day also serves as a cap on carbon monoxide emissions for all conformity analyses years after 2010 until replaced by a new motor vehicle emission budget established through the SIP process, or until replaced by a latter year emission budget as part of Massachusetts Department of Environmental Protection's maintenance plan for the second ten year period.

Identification by rule name and/or number/citation of the regulations that have been approved by EPA as part of the SIP Plan:

No new state regulations were approved into the Massachusetts State Implementation Plan as part of the Boston area carbon monoxide redesignation to attainment.

As a separate action within the same direct final rule, EPA did approve Massachusetts' Oxygenated Gasoline Program for the Boston CMSA, amendments to the Massachusetts Air Pollution Control Regulations, 310 CMR 7.00, with an effective date of March 1, 1994,

Other Commitments:

Emission reductions achieved through the implementation of control measures contained in Massachusetts existing SIP are enforceable. Measures in earlier Massachusetts CO SIPs include: transportation plan reviews, a basic Inspection and Maintenance Program, right turn on red, and the Federal Motor Vehicle Control Program.

Continued attainment of the carbon monoxide NAAQS in the Boston area depends, in part, on the State's commitment toward tracking indicators of continued attainment during the maintenance period. The State has also committed to submit periodic inventories of CO emissions every three years.

Massachusetts Department of Environmental Protection has committed to submit a subsequent maintenance plan revision in 8 years as required by the Clean Air Act. This revised maintenance plan will provide for maintenance for an additional ten years.

If the area records a violation of the carbon monoxide NAAQS (which must be confirmed by the State), Massachusetts will implement one or more appropriate contingency measure(s) which are contained in the contingency plan. The first set of contingency measures deals with localized CO problems, which is either an engineering fix or traffic flow improvement at any site which triggers the need for the contingency measure. The second set of contingency measures deals with regional CO emissions, which include the implementation of an oxygenated fuels program throughout the Boston CMSA, implementation of an enhanced inspection and maintenance program and implementation of travel demand measures.

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