The State of New Jersey
Department of Environmental Protection

State Implementation Plan Revision for the Attainment and Maintenance of the Carbon Monoxide National Ambient Air Quality Standards

Redesignation Request and Maintenance Plan for the New Jersey Portion of the New York-Northern New Jersey-Long Island Carbon Monoxide Nonattainment Area

January 15, 2002

PREFACE

The purpose of this document is to provide the United States Environmental Protection Agency (USEPA) with the information required by the Clean Air Act as amended in 1990 to redesignate the Northern New Jersey portion of the New York-Northern New Jersey-Long Island carbon monoxide non-attainment area to attainment and to request such a redesignation.

ACKNOWLEDGMENTS

The New Jersey Department of Environmental Protection (NJDEP) acknowledges the efforts and assistance of the agencies and individuals whose contribution were instrumental in the preparation of this implementation plan revision. In particular, the Department wishes to acknowledge the individuals within the New Jersey Department of Transportation, the North Jersey Transportation Planning Authority, Inc., Region II of the United States Environmental Protection Agency, and Pacific Environmental Services, Inc. for technical contractual support, as well as staff within the NJDEP for their assistance and guidance.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ACRONYMS AND ABBREVIATIONS

AIRS	Aerometric Information Retrieval System
CAA	Clean Air Act
CFR	Code of Federal Regulations
CMSA	Consolidated Metropolitan Statistical Areas
CO	carbon monoxide
FR	Federal Register
I/M	inspection and maintenance
MTBE	methyl tertiary-butyl ether
NAAQS	National Ambient Air Quality Standards
NHSDA	National Highway Systems Designation Act
NJDEP	New Jersey Department of Environmental Protection
N.J.R.	New Jersey Register
NLEV	National Low Emission Vehicle
NNEM	National Non-Road Emissions Model
NSR	New Source Review
ppm	parts per million
PSD	Prevention of Significant Deterioration
Pub.L.	Public Law
RFG	Reformulated Gasoline
SIP	State Implementation Plan
TCM	transportation control measure
TIP	Transportation Improvement Program
U.S.C.	United States Code
USEPA	United States Environmental Protection Agency
VMT	vehicle miles traveled

EXECUTIVE SUMMARY

This State Implementation Plan (SIP) revision presents the Request for Redesignation of the New Jersey portion of the New York-Northern New Jersey-Long Island moderate carbon monoxide nonattainment area from nonattainment to attainment for the carbon monoxide National Ambient Air Quality Standards (NAAQS). This area comprises counties in Northern New Jersey, downstate New York, and Southwestern Connecticut. The New Jersey portion of the area includes Hudson, Essex, Bergen, and Union counties and several municipalities in Passaic County. The Connecticut portion of the area was redesignated to attainment on March 10, 1999. The New York request for redesignation was submitted to the USEPA in May of 2001. On November 22, 1999, the USEPA determined that the entire multi-state nonattainment area had attained the carbon monoxide NAAQS. On August 30, 2001, the United States Environmental Protection Agency (USEPA) proposed to redesignate the New York portion of the area to attainment.

As part of this Request for Redesignation, this SIP revision presents the carbon monoxide Maintenance Plan for the New Jersey portion of the New York-Northern New Jersey-Long Island carbon monoxide nonattainment area. Implementation of the Maintenance Plan will ensure that the carbon monoxide NAAQS are maintained for at least ten years after a USEPA redesignation.

The redesignation action is a major milestone in New Jersey's clean air effort. All of New Jersey has now attained the carbon monoxide health standard. Attainment of the carbon monoxide health standard represents a significant health benefit to the citizens of New Jersey. Carbon monoxide has significant health effects when present in levels above the standard. An odorless, colorless gas, carbon monoxide is readily absorbed by the body through the lungs and can reduce the amount of oxygen that reaches the heart, brain, and other tissues. Exposure to elevated carbon monoxide levels has been linked to adverse health effects and can be especially harmful to children, people with heart disease, and pregnant women. At moderate levels, carbon monoxide exposure has been linked to symptoms such as dizziness, nausea, fatigue, poor vision and concentration, headaches, and heart pains. Exposure to high levels of carbon monoxide may result in unconsciousness and death.

This SIP revision presents the data and information that the USEPA requires in order to redesignate the area to attainment. Specifically, the document contains: (1) updated air quality monitoring data that demonstrate that measured carbon monoxide levels continue to remain below standards; (2) a Maintenance Plan that includes control measures, transportation conformity budgets, and a Contingency Plan; and (3) other information that supports the Request for Redesignation. The air quality monitoring data shows attainment with the health-based carbon monoxide NAAQS since 1996, while the carbon monoxide inventory projections for the years 2007 and 2014 that are included in the Maintenance Plan show reductions in emissions relative to the emissions estimated for 1996. Therefore, since future carbon monoxide emissions are expected to be lower than during 1996, there is every reason to conclude that attainment of the standard will continue through 2014.

It should also be noted that such a request for redesignation requires full approval of the State's Carbon Monoxide SIP. All portions have been approved, except for the Enhanced Inspection and Maintenance (I/M) Program, and that element was proposed for approval by the USEPA on September 11, 2001.

I. INTRODUCTION

This SIP revision includes the following:

1) updated air quality monitoring data that shows the New York-Northern New Jersey-Long Island carbon monoxide nonattainment area continues to meet the carbon monoxide National Ambient Air Quality Standards (NAAQS);

2) a Maintenance Plan that demonstrates the continuing downward trend in observed carbon monoxide concentrations in the area, describes how the State will maintain the carbon monoxide NAAQS until the year 2014, and provides a Contingency Plan that would be implemented should the State ever again violate the carbon monoxide NAAQS;

3) the information necessary to support a request to the USEPA to redesignate the New Jersey portion of the New York-Northern New Jersey-Long Island carbon monoxide nonattainment area to attainment; and

4) updated transportation conformity budgets, for use in assuring maintenance of the standard.

In addition to these items, the following information is also included in this document:

1) the history of New Jersey's previous Carbon Monoxide SIP revisions, and

2) other information related to the submission of this SIP revision.

II. BACKGROUND

The Federal Clean Air Act, 42 U.S.C. 7401 et seq., as amended by the Clean Air Act (CAA) of 1990, Public Law 101-549 (Pub. L. 101-549), November 15, 1990, requires all areas of the nation to attain and maintain compliance with National Ambient Air Quality Standards. These NAAQS are designed to protect public health and welfare from specific pollutants. As elaborated in USEPA Guidance,[1] an area can be redesignated to attainment if:

1) the USEPA has determined that the NAAQS have been attained,

2) the applicable implementation plan has been fully approved by the USEPA under section 110(k) of the Clean Air Act,

3) the USEPA has determined that the improvement in air quality is due to permanent and enforceable reductions in emissions,

4) the State has met all applicable requirements for the area under section 110 and Part D of the Clean Air Act, and

5) the USEPA has fully approved a maintenance plan, including a contingency plan, for the area under section 175A of the Clean Air Act.

---

[1] USEPA memorandum dated September 4, 1992, entitled *Procedures for Processing Requests to Redesignate Areas to Attainment*, from John Calcagni, Director, Air Quality Management Division.

For carbon monoxide, there are two primary NAAQS: an average 1-hour standard of 35 parts per million (ppm) and a non-overlapping average 8-hour standard of 9 ppm. Carbon monoxide concentrations in New Jersey have not exceeded the 1-hour standard since the late 1970s. Typical 1-hour maximum concentrations in New Jersey in recent years have been less than 12 ppm, well below the 35 ppm level. New Jersey's noncompliance with the 8-hour carbon monoxide NAAQS prior to 1996 was due primarily to highway sources and had been limited to specific areas during stagnating meteorological conditions. An area is in violation of the 8-hour standard if it experiences two or more exceedences of the 9 ppm standard within any two consecutive calendar years. The 9 ppm standard is exceeded when measured data values equal or exceed 9.5 ppm.

The only area in New Jersey that remains designated as nonattainment for carbon monoxide is located in the northeastern portion of the State. This area is the New Jersey portion of the New York-Northern New Jersey-Long Island carbon monoxide nonattainment area and includes Bergen, Essex, Hudson, and Union Counties, and the Passaic County municipalities of Clifton, Passaic, and Paterson. This nonattainment area is subsequently referred to in this document as the "northeastern" carbon monoxide nonattainment area. Figure 1 depicts the northeastern carbon monoxide nonattainment area and the carbon monoxide maintenance areas throughout the State.

The Connecticut portion of the nonattainment area was redesignated to attainment on March 10, 1999. New York submitted its request for redesignation of its affected counties in May of 2001. The USEPA proposed approval of the New York request on August 30, 2001.[2]

III. HISTORY OF NEW JERSEY'S CARBON MONOXIDE STATE IMPLEMENTATION PLANS

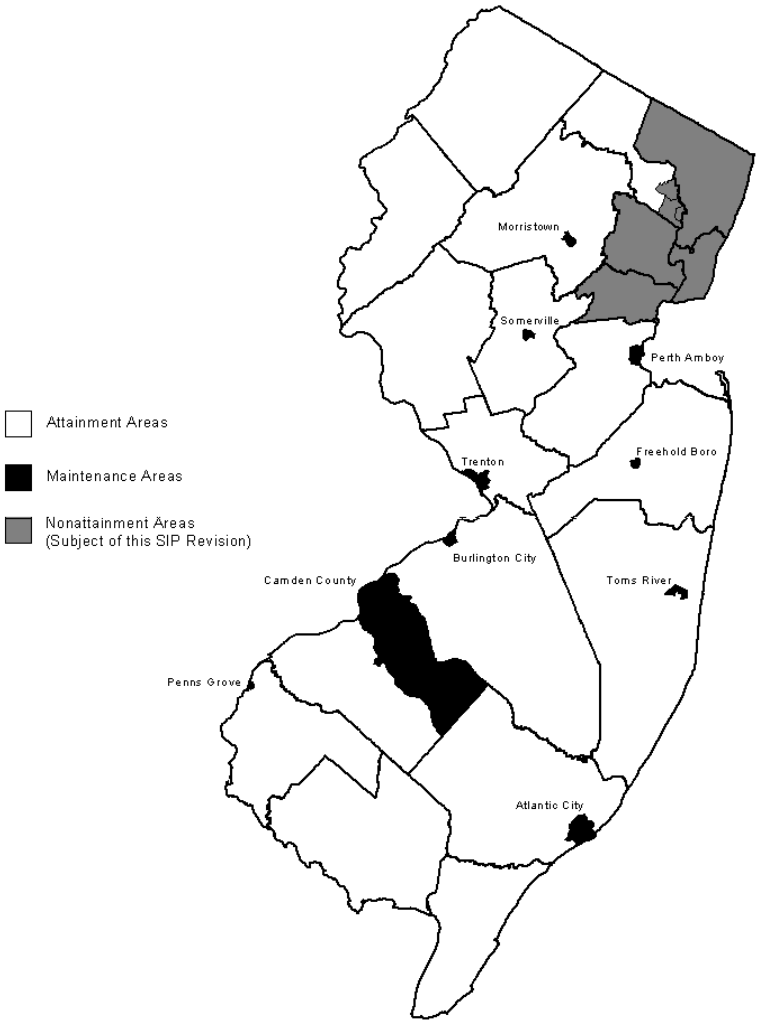
This section provides a brief history of the previous updates to New Jersey's Carbon Monoxide SIP.

A. 1982 Carbon Monoxide SIP

The 1982 Carbon Monoxide SIP identified two State measures and one federal measure to bring New Jersey's nonattainment areas into compliance with the NAAQS. The State measures identified were the pre-1990 modifications to the State's basic motor vehicle I/M program (not to be confused with the enhanced I/M program described in the 1990 CAA), and local transportation control measures (TCMs). The Federal measure was the Federal Motor Vehicle Control Program.

[2] 66 Federal Register (FR) 45806.

Figure 1: New Jersey Carbon Monoxide Nonattainment/Maintenance Areas



The USEPA approved the pre-1990 modifications to the basic I/M program for inclusion in the SIP.[3] The USEPA also found that New Jersey had implemented all of the TCMs committed to in the 1982 SIP revision.[4] The Federal Motor Vehicle Control Program was implemented nationally and was subsequently supplemented by the Clean Air Act Amendments of 1990, which contained new programs to further reduce emissions from motor vehicles. These programs continue to produce emission reductions as newer motor vehicles constantly replace older vehicles, a phenomenon commonly referred to as vehicle fleet turnover.

[3] 40 CFR 52.1570 et seq.

[4] Letter dated August 29, 1989, from USEPA Region II to Anthony McMahon, NJDEP.

B. 1992 Carbon Monoxide SIP Revisions

On November 15, 1992, New Jersey submitted to the USEPA those revisions to its Carbon Monoxide SIP required by the 1990 CAA. These revisions included:

- submission of a 1990 emission inventory,
- a commitment to perform periodic emission inventories,
- a commitment to demonstrate attainment of the carbon monoxide NAAQS using modeling,
- a commitment to submit annual vehicle miles traveled (VMT) tracking reports,
- a requirement for the sale of oxygenated gasoline,
- adoption of contingency measures for failure to attain the standard,
- adoption of contingency measures for exceedence of the VMT forecast,
- a commitment to adopt an enhanced I/M program,
- adoption of a new source review program, and
- a commitment to perform conformity determinations.

The State has since complied with all of the commitments made in its 1992 Carbon Monoxide SIP and has implemented the necessary measures. Many of the commitments included in the 1992 Carbon Monoxide SIP have been approved by the USEPA, as outlined in the next few paragraphs.

The USEPA approved New Jersey's emission inventory and contingency measures on December 7, 1995, at Volume 60 of the *Federal Register*, page 62741 (60 FR 62741).

The USEPA adopted a limited approval of New Jersey's oxygenated fuels rule on February 12, 1996, at 61 FR 5299. It should be noted that the 1992 SIP revision contained a wintertime oxygenated fuels rule that outlined a program designed for both the Camden County carbon monoxide nonattainment area and the northeastern carbon monoxide nonattainment area. However, at the time of the USEPA's approval of the State's wintertime oxygenated fuels program, New Jersey was in attainment in the Camden County area and the USEPA's direct final rule redesignating that area to attainment was in effect.[5] Consequently, the USEPA's SIP approval for New Jersey's wintertime oxygenated fuels program applied only to the northeastern carbon monoxide nonattainment area. New Jersey tried several times to end the program due to concern regarding methyl tertiary-butyl ether (MTBE), and subsequently adopted regulations that ended the wintertime oxygenated fuels program in the southern portion of the State.[6] At New Jersey's request, the USEPA approved the removal of New Jersey's oxygenated gasoline program from its SIP on November 22, 1999. Additional information regarding this action is presented below under Subsection F.

The USEPA proposed both a limited approval and a limited disapproval of the State's carbon monoxide New Source Review (NSR) rule and a disapproval of the State's carbon monoxide attainment demonstration for the northeastern part of the State on November 10, 1994, at 59 FR 56019. The USEPA's proposed disapproval of the State's carbon monoxide attainment

---

[5] 61 FR 33678 (June 28, 1996) and 60 FR 62741 (December 7, 1997).

[6] 27 N.J.R. 4731 (November 20, 1995) and 28 N.J.R. 851 (February 5, 1996).

demonstration was predicated on the fact that the demonstration relied on the implementation of an enhanced I/M program that had not been fully developed or implemented by the State. On July 25, 1996, at 61 FR 38591, the USEPA adopted its limited approval of the State's NSR regulation, as well as adopting its proposed approvals of New Jersey's vehicle miles traveled forecast and its multi-state coordination commitment. As part of its July 25, 1996, promulgation, the USEPA committed to taking future action on New Jersey's attainment demonstration and enhanced I/M program in separate Federal Registers. As discussed below, the USEPA has granted conditional interim approval of New Jersey's enhanced I/M program and has proposed a full approval.[7,8] As discussed in greater detail below, to date, the USEPA has taken no further specific action on the State's attainment demonstration for the northeastern part of the State but did determine on November 22, 1999, that the entire nonattainment area had met the NAAQS.[9]

USEPA guidance states that a fully approved NSR program is not required for redesignation provided that the NSR program is not relied upon for maintenance.[10,11] New Jersey currently has in place a delegated Prevention of Significant Deterioration (PSD) program for attainment areas in the State.[12] However, neither of these programs was used by the State to establish the 1996 emission "yardstick" that correlates with the attainment of the carbon monoxide NAAQS in the northeastern part of the State.

C. 1994 Carbon Monoxide SIP Revisions

On November 17, 1994, New Jersey revised its carbon monoxide SIP for the northeastern carbon monoxide nonattainment area to incorporate the results for the most recent planning tools available to the New Jersey Department of Environmental Protection (NJDEP). The updated planning tools included: 1) the USEPA Mobile Source Emission Factor Model, MOBILE5a; 2) the latest version of the line-source dispersion model, CAL3QHC version 2.0, and; 3) the travel demand model for the northern part of the State. These latest planning tools were used for the 1994 carbon monoxide SIP revision, in part, to ensure that the methodologies and assumptions used to calculate emission reductions for SIP purposes were consistent with those used to calculate emission reductions for Transportation Improvement Program (TIP) conformity purposes. As a result, the carbon monoxide transportation conformity budget for the five county area was set at 856 tons per day. [Note: The transportation conformity budget has subsequently been revised as discussed in Section V of this document.]

---

[7] 62 FR 26401 (May 14, 1997).

[8] 66 FR 47130.

[9] 64 FR 48970.

[10] USEPA memorandum dated September 4, 1992, entitled *Procedures for Processing Requests to Redesignate Areas to Attainment*, from John Calcagni, Director, Air Quality Management Division.

[11] USEPA Memorandum dated October 14, 1994, entitled *Part D New Source Review Requirements for Areas Requesting Redesignation to Attainment*, from Mary D. Nichols, Assistant Administrator, Air and Radiation Division, to Regional Air Division Directors.

[12] PSD Delegation Agreement dated November 19, 1990, between the NJDEP and the USEPA.

The combined application of these updated tools resulted in an increase in the emission inventory, increased benefits for the control programs, a lower vehicle miles traveled growth rate, and a higher predicted concentration at each intersection examined in the attainment demonstration. The 1994 attainment demonstration also included the effects of the State's wintertime oxygenated fuel and enhanced I/M programs. However, the conclusion remained the same as in the 1992 SIP revision; that is, the carbon monoxide NAAQS would be attained by December 31, 1995.

D. 1995 Carbon Monoxide SIP Revision

In 1995, the State of New Jersey applied to the USEPA for redesignation of both the Camden County carbon monoxide nonattainment area and the nine not-classified carbon monoxide areas to attainment of the carbon monoxide NAAQS. The USEPA approved these redesignation requests in a Federal Register notice published on December 7, 1995, that became effective on February 7, 1996.[13] This approval was re-affirmed by the USEPA in a Federal Register notice published on June 28, 1996, that incorporated the USEPA's responses to comments received during the public comment period.[14]

E. 1996 Request for an Extension of the Attainment Date

It was not possible to demonstrate two years of non-violating air quality data by the December 31, 1995 attainment deadline due to carbon monoxide NAAQS violations in 1994. Therefore, the State had the choice of either allowing the area to be reclassified to the higher classification of serious carbon monoxide nonattainment or applying to the USEPA for an extension of the attainment date as allowed by the Clean Air Act.[15] On April 24, 1996, the State submitted a request to the USEPA for a one year extension of the attainment date to December 31, 1996.[16] New York and Connecticut, the two other states that comprise the New York-Northern New Jersey-Long Island carbon monoxide nonattainment area, subsequently submitted letters to the USEPA on July 31, 1996, and June 27, 1996, respectively, concurring with New Jersey's request for an attainment date extension. The northeastern carbon monoxide nonattainment area met the Clean Air Act's requirements and the USEPA's criteria for obtaining an extension of an attainment date for a moderate nonattainment area in that it: 1) had complied with all the requirements and commitments pertaining to the area in the applicable implementation plan, and 2) had no more than one exceedence of the carbon monoxide NAAQS

[13] 60 FR 62741.

[14] 61 FR 33678.

[15] 42 U.S.C. 7512(a)(4).

[16] Letter dated April 24, 1996, from Robert C. Shinn, Commissioner, NJDEP, to Jeanne M. Fox, Regional Administrator, USEPA, Region II.

at any monitoring site in the year preceding the extension year, that is, 1995.[17, 18] Thus, the USEPA approved New Jersey's and the other states' 1-year attainment date extension requests on November 5, 1996, at 61 FR 56897.

F. 1998 Carbon Monoxide SIP Revision

On July 21, 1997, the NJDEP proposed regulatory amendments to repeal its wintertime oxygenated fuel requirements for Northern New Jersey in the New Jersey Register (29 N.J.R. 3222(a)). In addition to this proposed rulemaking, the NJDEP also prepared a proposed Carbon Monoxide SIP revision that, in part: 1) demonstrated that the New Jersey portion of the New York-Northern New Jersey-Long Island carbon monoxide nonattainment area had attained the carbon monoxide NAAQS; 2) requested that, based on this attainment demonstration and a comprehensive plan to maintain the standard for at least the next ten years, the New Jersey portion of the multistate nonattainment area be redesignated to attainment; and 3) removed the State's wintertime oxygenated fuel program from New Jersey's carbon monoxide SIP.

A hearing to take public comment on both the rulemaking proposal and the SIP revision was held on August 11, 1997, and written comments were accepted until close of business, August 20, 1997. Based upon comments received during the comment period and subsequent conversations with the USEPA and the other states in the multistate nonattainment area, the State decided, on August 7, 1998, to submit only portions of the proposed carbon monoxide SIP revision to the USEPA. The State subsequently submitted the entire proposal except for: 1) the Maintenance Plan (which demonstrated that New Jersey would continue to maintain the carbon monoxide NAAQS until the year 2009 and discussed the contingency measure(s) that would be implemented should New Jersey again violate the NAAQS); and 2) the request that the USEPA redesignate the northeastern nonattainment area to attainment (the "redesignation request"). In that submittal, the State also committed to revise its transportation conformity budget once the USEPA took action on the SIP revision.

On August 17, 1998, the NJDEP adopted its regulatory proposal calling for the removal of the wintertime oxygenated fuel program in Northern New Jersey.[19] On November 22, 1999, the USEPA determined that the New York-Northern New Jersey-Long Island carbon monoxide area had attained the carbon monoxide NAAQS.[20] The USEPA also approved the State's request to remove New Jersey's oxygenated gasoline program from its SIP.[21]

---

[17] USEPA memorandum dated October 23, 1995, entitled *Criteria for Granting Attainment Date Extensions, Making Attainment Determinations, and Determinations of Failure to Attain the NAAQS for Moderate Carbon Monoxide Nonattainment Areas*, from Sally L. Shaver, Director, Air Quality Strategies and Standards Division, to Regional Air Office Directors.

[18] 42 U.S.C. 7512(a).

[19] 30 N.J.R. 3025.

[20] 64 FR 48970.

[21] 64 FR 63690.

IV. AIR QUALITY UPDATE

New Jersey continuously monitors ambient concentrations of carbon monoxide in the northeastern New Jersey carbon monoxide nonattainment area at several locations. Currently, a total of eight air quality monitoring stations are located in the northeastern carbon monoxide nonattainment area; one each at East Orange, Elizabeth[22], Elizabeth Lab[23], Fort Lee, Hackensack, Jersey City, Newark, and North Bergen. Figure 2 presents a map showing the location of these monitors.

The State's attainment demonstration submittal of August 7, 1998, showed that 8-hour average concentrations of carbon monoxide at New Jersey's monitoring sites in the northeastern carbon monoxide area fell below the standard beginning in 1996. Updated trend data for the monitoring sites are provided in Figure 3 and Table 1. It is evident that the downward trend in measured maximums and second highest carbon monoxide concentrations has continued. Similar data for the New York and Connecticut portions of the New York-Northern New Jersey-Long Island carbon monoxide nonattainment area are presented in Tables 2 and 3, respectively.

V. MAINTENANCE PLAN

A. Introduction

As presented in Section VI, the USEPA's approval of a redesignation request for a nonattainment area requires, among other items, the approval of a maintenance plan for the area.[24] The USEPA guidance allows states to submit their redesignation request and their maintenance plan at the same time.[25] Consequently, New Jersey is submitting both documents simultaneously and requests that rulemaking on both proceed on parallel tracks. The Maintenance Plan is set forth below.

A maintenance plan must provide for an area to maintain the NAAQS for at least ten years after the redesignation and contain such additional measures as may be necessary to ensure such maintenance.[26] New Jersey has structured its Maintenance Plan to cover a 12-year period from 2002 to 2014 so that the maintenance plan requirements will be met even if the Administrator uses the full 18 months allotted under the Clean Air Act to approve the redesignation.[27]

---

[22] Downtown area of the city of Elizabeth.

[23] Near Exit 13 of the NJ Turnpike.

[24] 42 U.S.C. 7407(d)(3)(E)(iv); 42 U.S.C. 7505a.

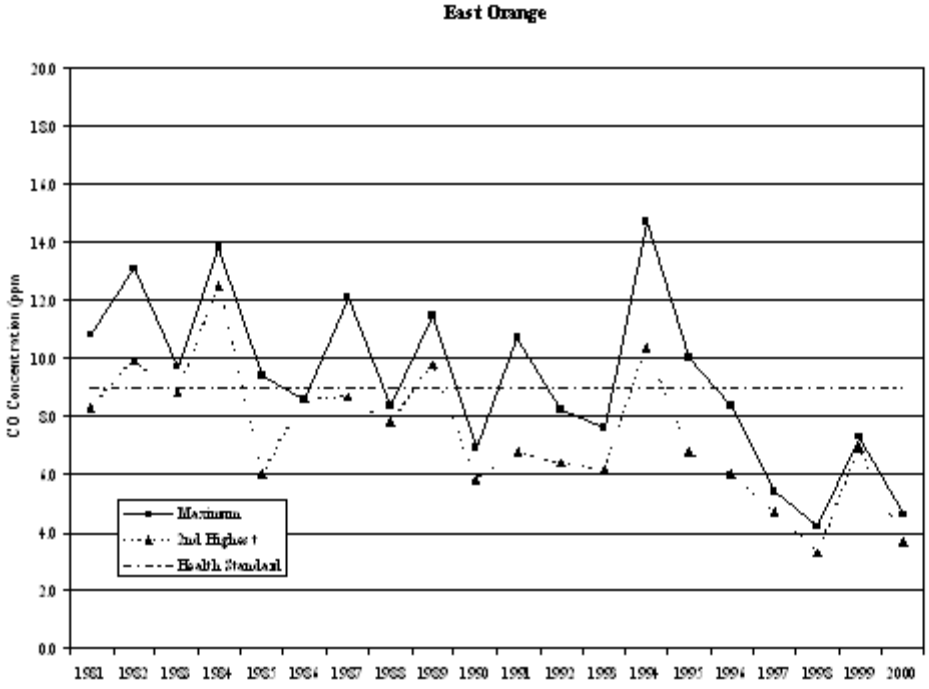
[25] USEPA memorandum dated September 4, 1992, entitled *Procedures for Processing Requests to Redesignate Areas to Attainment*, from John Calcagni, Director, Air Quality Management Division, to Regional Air Directors, page 7.

[26] 42 U.S.C. 7505a(a).

[27] 42 U.S.C. 7407(d)(3)(D).

Figure 2: Carbon Monoxide Monitoring Locations in the Northeastern New Jersey Carbon Monoxide Nonattainment Area

Figure 3: Carbon Monoxide Monitoring Data (8-Hour Averages)



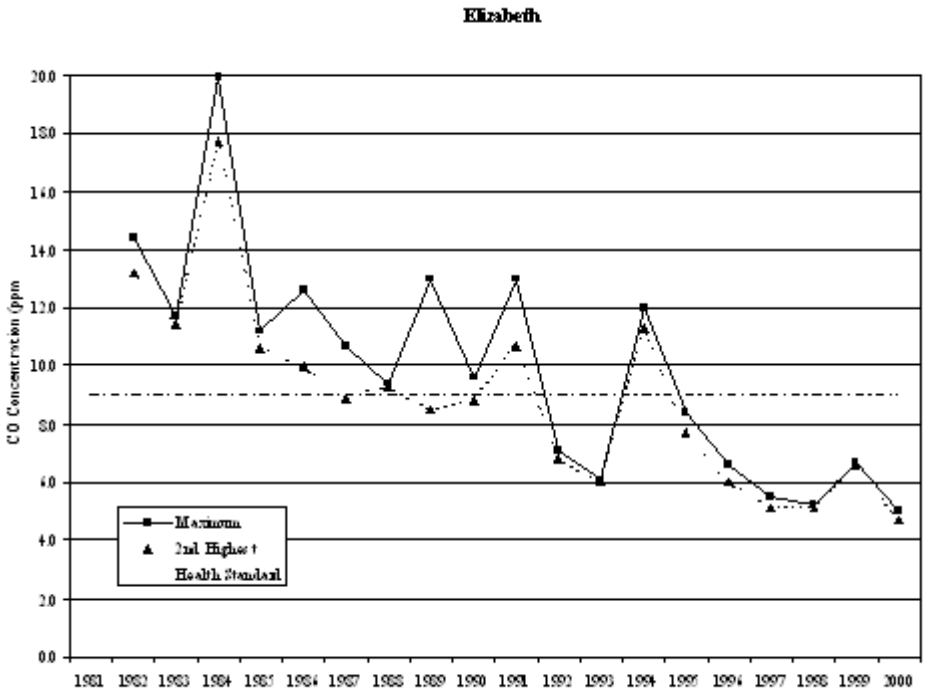
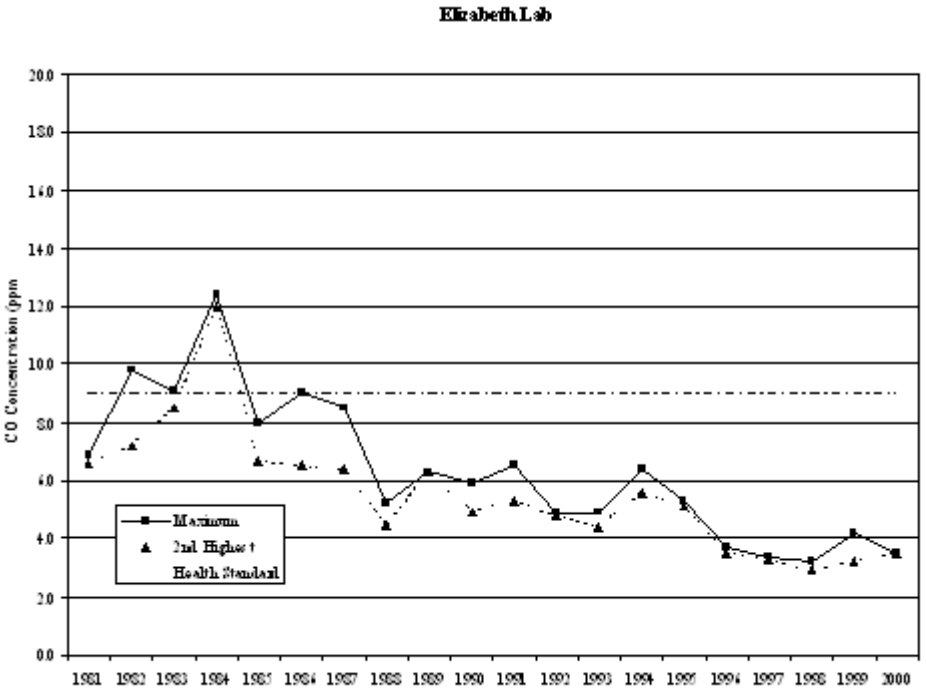


Figure 3: Carbon Monoxide Monitoring Data (Continued)
(8-Hour Averages)



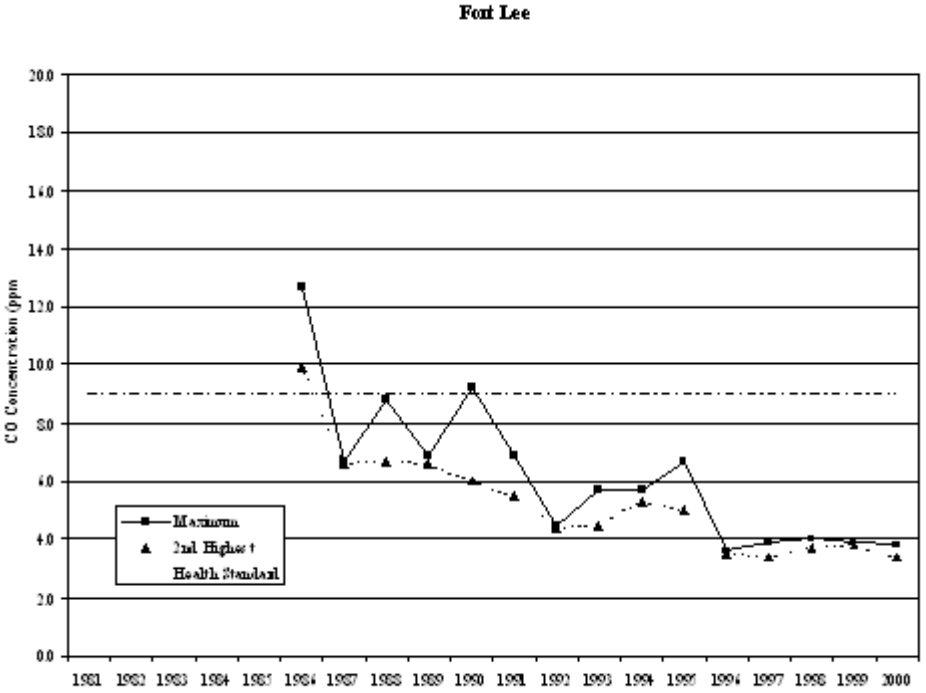
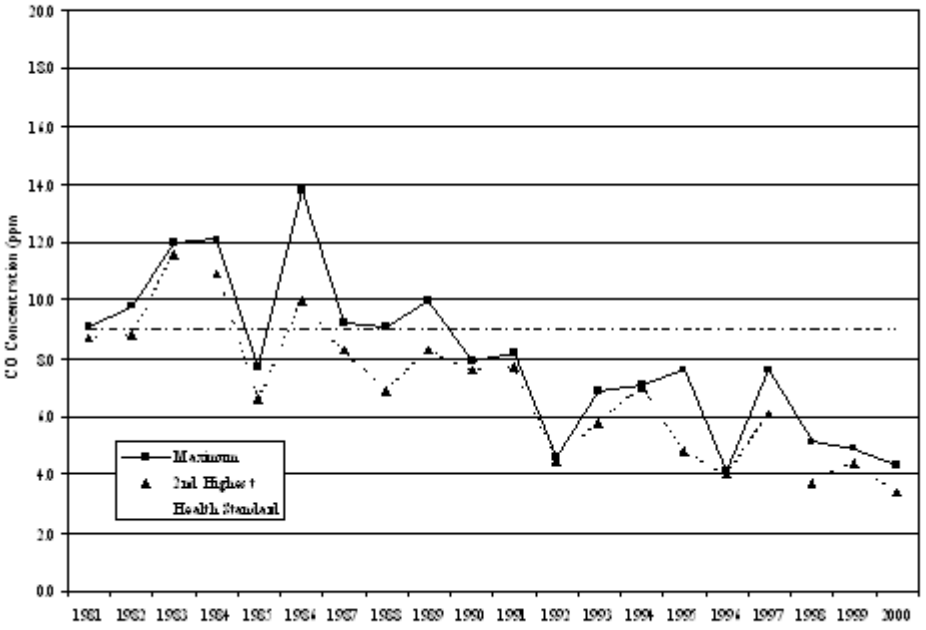


Figure 3: Carbon Monoxide Monitoring Data (Continued) (8-Hour Averages)

Hackensack



Jersey City

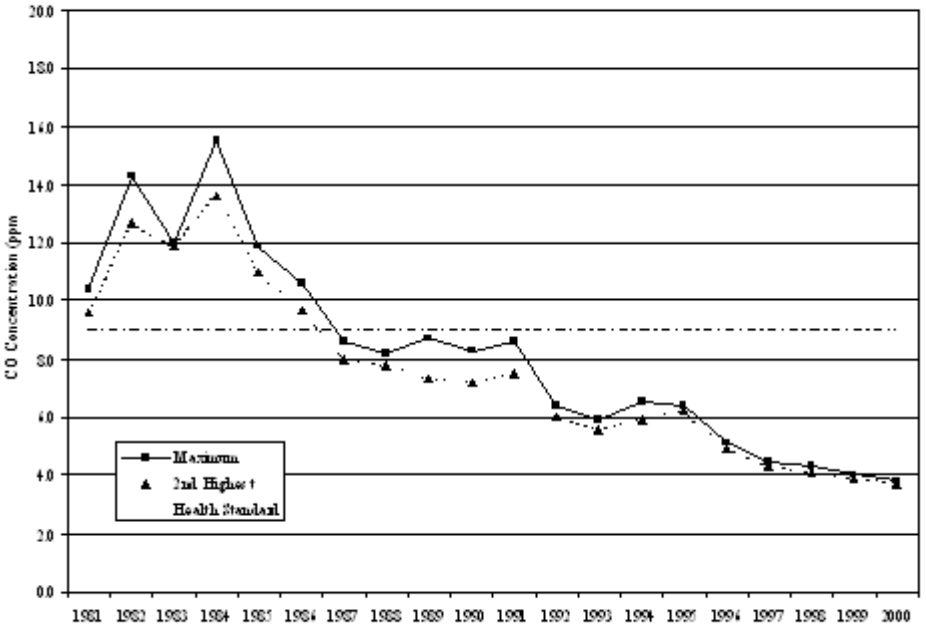
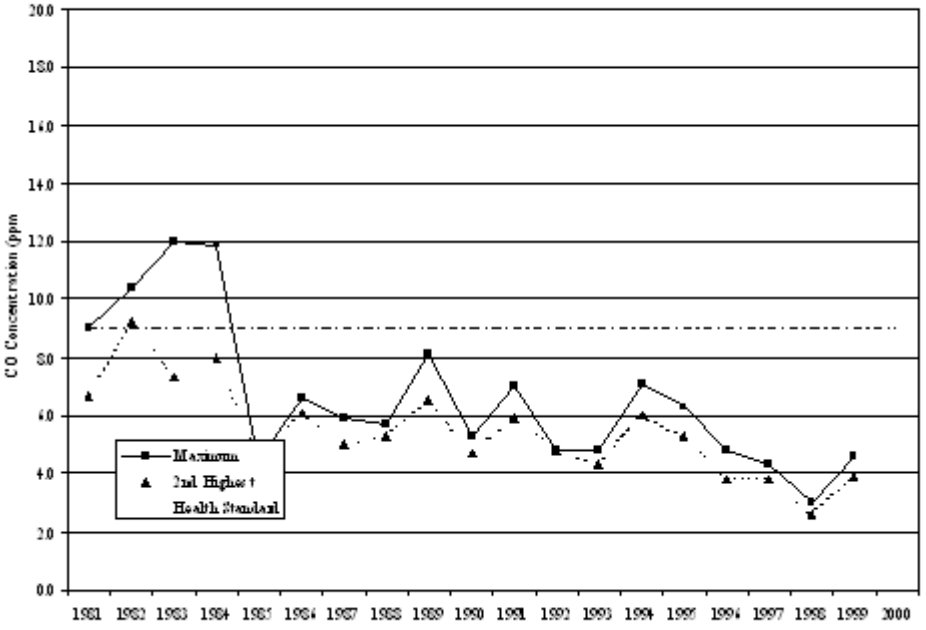


Figure 3: Carbon Monoxide Monitoring Data (Continued)
(8-Hour Averages)

Newark



North Bergen

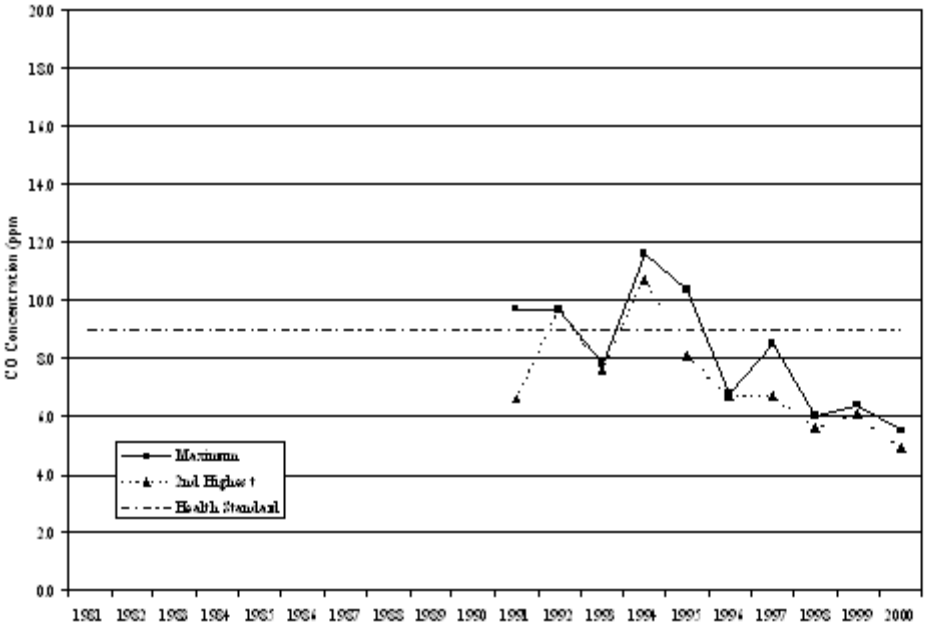


Table 1: Northeastern New Jersey Carbon Monoxide Ambient Air Monitoring Values (non-overlapping 8-hour averages ≥ 7.0 ppm)

Location*	1993		1994		1995		1996	
	Date	Value	Date	Value	Date	Value	Date	Value
East Orange (Neighborhood)	11/11	7.6	02/19 02/19 03/25 12/05	**14.7** **10.4** 7.0 9.2	01/14	**10.0**	11/18	8.4
Elizabeth (Microscale)	None		02/19 02/19 02/19 12/04 12/22	**12.0** **11.3** 7.4 8.2 8.5	01/14 02/28	8.4 7.7	None	
Elizabeth Lab (Neighborhood)	None		None		None		None	
Fort Lee (Neighborhood)	None		None		None		None	
Hackensack (Neighborhood)	None		02/19 12/22	7.1 7.0	01/13	7.6	None	
Jersey City (Middle)	None		None		None		None	
Newark (Neighborhood)	None		02/19	7.1	None		None	
North Bergen (Microscale) (site began operation in November 1991)	02/11 10/16 11/02 11/10 11/19 12/17	7.6 7.8 7.3 7.4 7.4 7.1	02/15 02/19 02/19 02/21 10/17 10/24 12/04 12/04 12/22 12/22 12/23	7.7 **11.6** **9.2** 7.7 7.8 7.4 7.7 **10.7** 7.4 **10.1** 8.1	01/13 01/13 01/14	**10.4** 8.1 7.6	None	
Number of Values ≥ 7.0 ppm	7		23		7		1	
Number of exceedences above the NAAQS	0		8		2		0	

* includes monitor's type of location

Note: numbers in **bold** indicate exceedences of the NAAQS health standard.

Source: Aerometric Information Retrieval System (AIRS), http://www.epa.gov/aqspubl1/site.html.

Table 1: Northeastern New Jersey Carbon Monoxide Ambient Air Monitoring Values (Continued) (non-overlapping 8-hour averages ≥ 7.0 ppm)

Location*	1997		1998		1999		2000	
	Date	Value	Date	Value	Date	Value	Date	Value
East Orange (Neighborhood)	None		None		N.A.	7.3	None	
Elizabeth (Microscale)	None		None		None		None	
Elizabeth Lab (Neighborhood)	None		None		None		None	
Fort Lee (Neighborhood)	None		None		None		None	
Hackensack (Neighborhood)	12/17	7.6	None		None		None	
Jersey City (Middle)	None		None		None		None	
Newark (Neighborhood)	None		None		None		None	
North Bergen (Microscale) (site began operation in November 1991)	12/17	8.5	None		None		None	
Number of Values ≥ 7.0 ppm	2		0		1		0	
Number of exceedences above the NAAQS	0		0		0		0	

* includes monitor's type of location

Note: numbers in **bold** indicate exceedences of the NAAQS health standard.

Source: Aerometric Information Retrieval System (AIRS), http://www.epa.gov/aqspubl1/site.html.

Table 2: New York City Carbon Monoxide Ambient Air Monitoring Values (non-overlapping 8-hour averages ≥ 7.0 ppm)

Location*	1993		1994		1995		1996	
	Date	Value	Date	Value	Date	Value	Date	Value
200th Street & Southern (Traffic) (Urban Photochemical Assessment)	N/A		N/A		None		None	
Brooklyn Transit MTA Flatbush Ave. (Traffic) (Microscale)	10/21 10/20	7.1 7.0	12/04	8.1	02/28 01/13 01/13	**9.8** 7.9 7.4	None	
PS 321, 180 7th Ave. (Roof Top) (Neighborhood)	None		None		1/13	7.0	None	
Eisenhower Park, Merrick (Traffic) (Neighborhood)	None		None		None		None	
PS 59, 288 E. 57th St. (Roof Top) (Neighborhood)	None		None		None		None	
Post Office 350 Canal St. (Traffic) (Microscale)	None		03/25 02/18 02/19	7.5 7.2 7.1	01/14 03/14	7.1 7.0	None	
Bloomingdales 59th St. (Traffic) (Microscale)	None		12/04 03/25 12/23 12/22	8.7 7.3 7.2 7.1	01/13 01/13 02/28	8.3 7.9 7.3	None	
225E. 34th St. (Traffic) (Microscale)	None		None		02/28	7.5	None	
Number of Values ≥ 7.0 ppm	2		8		10		0	
Number of exceedences above the NAAQS	0		0		1		0	

* includes monitor's type of location

Note: numbers in **bold** indicate exceedences of the NAAQS health standard.

Source: Aerometric Information Retrieval System (AIRS), http://www.epa.gov/aqspubl1/site.html.

Table 2: New York City Carbon Monoxide Ambient Air Monitoring Values (Continued) (non-overlapping 8-hour averages ≥ 7.0 ppm)

Location*	1997		1998		1999		2000	
	Date	Value	Date	Value	Date	Value	Date	Value
200th Street & Southern (Traffic) (Urban Photochemical Assessment)	None		None		None		None	
Brooklyn Transit MTA Flatbush Ave. (Traffic) (Microscale)	None		None		None		None	
PS 321, 180 7th Ave. (Roof Top) (Neighborhood)	None		None		None		None	
Eisenhower Park, Merrick (Traffic) (Neighborhood)	None		None		None		None	
PS 59, 288 E. 57th St. (Roof Top) (Neighborhood)	None		None		None		None	
Post Office 350 Canal St. (Traffic) (Microscale)	None		None		None		None	
Bloomingdales 59th St. (Traffic) (Microscale)	None		None		None		None	
225E. 34th St. (Traffic) (Microscale)	None		None		None		None	
Number of Values ≥ 7.0 ppm	0		0		0		0	
Number of exceedences above the NAAQS	0		0		0		0	

* includes monitor's type of location

Note: numbers in **bold** indicate exceedences of the NAAQS health standard.

Source: Aerometric Information Retrieval System (AIRS), http://www.epa.gov/aqspubl1/site.html.

Table 3: Connecticut Carbon Monoxide Ambient Air Monitoring Values (non-overlapping 8-hour averages ≥ 7.0 ppm)

Location*	1993	1994	1995	1996	1997	1998	1999	2000
Jasper Mclevy Hall Bridgeport (Microscale)	None	7.7	None	None	None	None	None	None
Liberty 96 Broad Street Stamford (Microscale)	None	7.1	None	None	None	None	None	None
Number of Values ≥ 7.0 ppm	0	2	0	0	0	0	0	0
Number of exceedences above the NAAQS	0	0	0	0	0	0	0	0

* includes monitor's type of location

Source: Aerometric Information Retrieval System (AIRS), http://www.epa.gov/aqspubl1/site.html.

As outlined in USEPA guidance,[28] this maintenance plan includes the following elements:

1) an attainment inventory that identifies the level of emissions in the northeastern carbon monoxide nonattainment area that is sufficient to attain the NAAQS,
2) a maintenance demonstration that shows that future carbon monoxide emissions will not exceed the level of the attainment inventory within ten years of the redesignation,
3) a description of the monitoring network that New Jersey will continue to use to verify the attainment status of the northeastern area,
4) a description of how New Jersey will verify continued attainment with the carbon monoxide NAAQS that indicates how the State will track the progress of the maintenance plan, and
5) a contingency plan that will be implemented to promptly correct a violation of the NAAQS should one occur after redesignation, including those measures that were in place in the area prior to redesignation to attainment.

As discussed below, each of these elements has been included in New Jersey's carbon monoxide Maintenance Plan. In addition, the Maintenance Plan includes a transportation conformity budget to ensure adequate tracking of on-road source emissions.

[28] USEPA memorandum dated September 4, 1992, entitled *Procedures for Processing Requests to Redesignate Areas to Attainment*, from John Calcagni, Director, Air Quality Management Division, to Regional Air Directors, pages 7 through 13.

B. Attainment Inventory

The USEPA guidance directs states to prepare an emission inventory that is representative of attainment and includes the emissions during the time period associated with the monitoring data showing attainment.[29] This inventory is referred to as the attainment inventory. New Jersey attained the NAAQS for carbon monoxide in 1996. Therefore, New Jersey's attainment inventory represents a typical day in the winter of 1995-96 (the 1996 carbon monoxide season, December 1995 through February 1996).

An estimate of the 1996 ("attainment year") emissions was provided in the State's attainment demonstration submittal of August 7, 1998.[30] This estimate has been updated to account for methodological changes (e.g., the use of a new version of the non-road emissions model) and new data (e.g., the use of updated (1999) on-road vehicle registration data). It also includes the effect of oxygenated fuel since that measure was in effect at that time. The updated carbon monoxide emission estimates, represented in tons per typical winter day, for each county located within the northern nonattainment area are presented in Table 4. Appendix I presents a detailed discussion of the development of this inventory.

Table 4: The 1996 Carbon Monoxide Attainment Emission Inventory

County	Carbon Monoxide Emissions (tons per day)				
	Point Source Emissions	Area Sector Emissions	On-Road Emissions	Non-Road Emissions	County Totals
Bergen	1.62	28.10	297.77	127.80	455.29
Essex	2.77	11.81	208.70	63.82	287.10
Hudson	8.83	5.15	126.79	42.88	183.64
Passaic[a]	0.72	39.65	141.07	38.74	220.17
Union	4.18	13.98	153.36	47.60	219.11
Sector Totals	18.11	98.69	927.69	320.83	1,365.32

[a] Includes all of Passaic County.

[29] USEPA memorandum dated September 4, 1992, entitled *Procedures for Processing Requests to Redesignate Areas to Attainment*, from John Calcagni, Director, Air Quality Management Division, to Regional Air Directors, page 8.

[30] The State of New Jersey Department of Environmental Protection. *State Implementation Plan (SIP) Revision for the Attainment and Maintenance of the Carbon Monoxide National Ambient Air Quality Standards, Attainment Demonstration for the New Jersey Portion of the New York-Northern New Jersey-Long Island Carbon Monoxide Nonattainment Area*. August 7, 1998.

C. Maintenance Demonstration

The USEPA guidance allows for a state to demonstrate maintenance of a NAAQS by showing that future projected emissions are less than or equal to the attainment year inventory.[31] The following paragraphs discuss the projected carbon monoxide emission inventories for 2007 and 2014 and the "proportional rollback" methodology that is inherent to the maintenance demonstration. The year 2014 represents the required 10 years after USEPA approval for a Maintenance Demonstration. The year 2007 was examined to determine inventory trends between 1996 and 2014. In addition, New Jersey's rationale for not using modeling to demonstrate maintenance is presented.

1. Projected Emission Inventories for 2007 and 2014

To demonstrate that the Maintenance Plan will prevent any exceedence of the NAAQS over the required time period (until 2014), the projected carbon monoxide emission inventory for 2007 and 2014 was compared with the State's 1996 attainment inventory. As presented in Tables 5 and 6, the projected emission inventories for both years are well below the 1996 attainment inventory. The projected 2014 carbon monoxide emission inventory, including the effects of the strategies contained in the Maintenance Plan, is 1,120 tons of carbon monoxide per winter day, 17.9% below the 1996 attainment inventory of 1,365 tons of carbon monoxide per winter day. The emission reductions beyond 1996 demonstrate that the control measures included in the Maintenance Plan are sufficient to maintain compliance with the carbon monoxide NAAQS through 2014. Appendix II contains a detailed discussion regarding the development of the 2007 and 2014 inventories. Each of the control measures that are included in the Maintenance Plan are described below.

Table 5: The 1996 Attainment and 2007 and 2014 Projected Carbon Monoxide Season Carbon Monoxide Emission Inventories by County

County	1996 Attainment Emission Inventory (Tons/Day)	2007 Projected Emission Inventory (Tons/Day)	2014 Projected Emission Inventory (Tons/Day)
Bergen	455.29	366.22	397.45
Essex	287.10	219.83	233.18
Hudson	183.64	122.81	135.76
Passaic[a]	220.17	170.89	179.28
Union	219.11	164.20	174.54
Totals	1,365.32	1043.94	1120.22

[a]Includes all of Passaic County.

[31] USEPA memorandum dated September 4, 1992, entitled *Procedures for Processing Requests to Redesignate Areas to Attainment*, from John Calcagni, Director, Air Quality Management Division, to Regional Air Directors, page 9.

Table 6: The 1996 Attainment and 2007 and 2014 Projected Carbon Monoxide Season Carbon Monoxide Emission Inventories by Sector

Emission Sector	1996 Attainment Emission Inventory (Tons/Day)	2007 Projected Emission Inventory (Tons/Day)	2014 Projected Emission Inventory (Tons/Day)
Point	18.11	28.75	35.52
Area	98.68	102.08	104.25
On-Road	927.69	492.41	490.45
Non-Road	320.83	420.70	490.00
Totals	1,365.32	1043.94	1120.22

[a] Includes all of Passaic County.

a. Point and Area Source Control Strategies

The Maintenance Plan does not include any new control strategies for point or area sources. Therefore, only emission source growth was considered when the carbon monoxide emission projections for 2007 and 2014 were developed.

b. On-Road Source Control Strategies

The Maintenance Plan includes two federal strategies, one regional strategy, and one State strategy to control emissions from on-road mobile sources. The federal strategies included in the Maintenance Plan are those included in CAA Amendments of 1990 [Tier 1 and federal Reformulated Gasoline (RFG)]. The regional strategy included in the Maintenance Plan is the National Low Emission Vehicle (NLEV) program, while the State strategy included in the Maintenance Plan is the State's enhanced I/M program, which was modeled using the program as currently implemented in 1999 with phase-in cutpoints.

Since on-road sources are a major carbon monoxide contributor, adherence to transportation conformity budgets is also considered to be a key element of the Maintenance Plan. The transportation conformity process and the budgets established are discussed below under Subsection G.

Finally, regarding on-road sources, it should be noted that as part of its August 7, 1998, carbon monoxide SIP revision, the State removed the requirements for its wintertime oxygenated fuels program in the northern portion of the State. Consequently, the State is not relying on this program as a control strategy to maintain the NAAQS. The State's August 7, 1998, carbon monoxide SIP revision includes an in-depth discussion regarding why the removal of the wintertime oxygenated fuels will not cause an exceedence of the NAAQS. Because the wintertime oxygenated fuels program was in place when attainment was reached, the effects of the program were included in the 1996 emissions inventory (see Table 4).

c. Non-Road Source Control Strategies

Regarding non-road sources, the Maintenance Plan relies on carbon monoxide reductions anticipated from Phase 1 of the Federal Spark Ignition Small Engine Rule which are incorporated into the calculation algorithm of the USEPA's National Non-Road Emissions Model (NNEM), version 2.2.

2. Proportional Rollback

Since carbon monoxide is nearly unreactive during the winter months of the carbon monoxide nonattainment season, it is reasonable to assume that trends in emissions will translate into proportional trends in ambient concentrations. This principal, commonly referred to as proportional rollback, is the basis for this maintenance demonstration. Since the future year emissions estimates that are summarized in Tables 5 and 6 are based on the same methodologies as those used for the 1996 inventory, and are clearly lower than the attainment year inventory, it is assumed that attainment will be maintained through 2014.

3. Intersection Modeling

The State believes that current downward carbon monoxide monitoring trends and the inventory projections above provide a compelling case that the carbon monoxide NAAQS will be maintained. Furthermore, previous air quality modeling indicated compliance with the standards.[32] Consequently, the State does not believe that future projected intersection modeling is necessary.

D. Monitoring Network

To verify that the northeastern carbon monoxide nonattainment area remains in attainment, New Jersey will continue to operate an appropriate air monitoring network. The air monitoring results will detect any changes in the ambient air quality, as well as assist the State in determining whether or not it is necessary to implement any contingency measures. The State will continue to work with the USEPA through the air monitoring network review process, as required by 40 CFR Part 58, to determine: 1) the adequacy of the carbon monoxide monitoring network; 2) if additional monitoring is needed; and 3) when monitoring can be discontinued. These determinations must be consistent with the section 105 air grant process.[33] Air monitoring data will continue to be quality assured according to the requirements in the USEPA regulations.[34]

E. Verification of Continued Attainment

To track the progress of the Maintenance Plan, the State will review the carbon monoxide concentrations from its monitoring sites each year. As long as trends are downward or stable, no

---

[32] NJDEP, *Attainment Demonstration for the New Jersey Portion of the New-York-Northern New Jersey-Long Island Carbon Monoxide Nonattainment Area.*

[33] 42 U.S.C. 7405.

[34] 40 CFR 58.

further verification of maintenance is needed or will be performed. However, if an increase in the carbon monoxide design value concentration is observed over a 3-year period at any monitoring sites and a design value of 7.0 ppm is exceeded, the State will review suspected activity data (e.g., VMT) to determine the cause of the increases in carbon monoxide concentration. If that review of the activity data does not reveal the cause of the increase and the rate of increase predicts an exceedence of the NAAQS within 3 years, emission estimates of those categories suspected to be increasing will be generated and compared to these same categories in the 1996 attainment inventory.

This air quality trends assessment will be done using the carbon monoxide "design value" derived from measurements in line with the nature of the 8-hour carbon monoxide standard discussed in Section II. The design value is basically the second highest 8-hour average over each two-year period.

F. Contingency Plan

The Clean Air Act requires that maintenance plans include contingency provisions. The purpose of the contingency provisions is to assure that any violations of the NAAQS that occur after the redesignation of an area to attainment will be corrected promptly.[35] The USEPA has issued guidance describing the contents of the contingency plan.[36] This guidance specifies that the contingency plan should clearly identify the measure(s) to be adopted, a schedule and procedure for adoption and implementation, and a specific time limit for action by the State. The USEPA has also recommended that the State specify specific triggers that will be used to determine when the contingency measure(s) need to be implemented.

1. Contingency Measure Triggers

If air quality monitoring data indicate that the carbon monoxide NAAQS were exceeded, New Jersey will first analyze available data regarding the air quality, meteorology, and related activities in the area to determine the cause of the violation. After this analysis is complete, if it is determined that the violation was caused by non-local motor vehicle usage (i.e., not due to a local traffic problem, a special event, or stationary sources, and not occurring during the same meteorological episode as the first exceedence), then the State will institute the contingency measures described below.

2. Contingency Measures and Timeframes

Section 175A(d) of the Clean Air Act requires that, at a minimum, a Contingency Plan include reinstatement of all measures that were contained in the SIP before redesignation of the area as an attainment area. The State would propose to implement interim cutpoints for its Enhanced Vehicle Inspection and Maintenance Program as a contingency measure. This measure was not included in the inventory projections of Table 6 and, therefore, would result

[35] 42 U.S.C. 7505a(d).

[36] USEPA memorandum dated September 4, 1992, entitled *Procedures for Processing Requests to Redesignate Areas to Attainment*, from John Calcagni, Director, Air Quality Management Division, to Regional Air Directors, page 12.

in additional carbon monoxide emission reductions. It is expected that this measure will be in place within one year of a triggering event according to the following schedule:

1) Proposal within 5 months of triggering event;

2) Public hearing within 7 months of triggering event; and

3) Adoption within 12 months of triggering event.

Another contingency measure that the State will implement will reduce truck idling emissions through a set of actions including sign postings, notices to trucking associations and, if necessary, additional enforcement of its existing truck idling regulations by the appropriate enforcement officials. Since the rules for this measure are in place, it can be implemented within 6 months of a finding of necessity.

Finally, if it becomes necessary to reduce carbon monoxide levels in the future, New Jersey will work with the local metropolitan planning agency to implement transportation control measures such as: Transportation Demand Management measures, arterial and signal improvement projects, bicycle projects, and various transit related projects. Since the implementation of potential contingency measures would not be expected to take place until well in the future, the specification of specific detailed measures is not practicable. The most appropriate contingency measures may be significantly different from the measures mentioned above due to technological, societal, economic, and political factors that are impossible to predict.

G. Transportation Conformity

1. Background

The Clean Air Act requires that any Federal action taken on transportation plans, programs, and projects be in conformance with a State's implementation plan. Specifically, Section 176(c)(2) of the Clean Air Act states "no department, agency, or instrumentality of the Federal Government shall engage in, support in any way, or provide financial assistance for, or approve, any activity which does not conform to an approved or promulgated state implementation plan. No metropolitan planning organization designated under section 134 of Title 23, shall give its approval to any project, program, or plan which does not conform to an approved or promulgated state implementation plan." These requirements are interpreted by the USEPA to apply to attainment as well as nonattainment areas.[37]

"Conformity to an implementation plan" means conforming to the implementation plan's purpose of eliminating or reducing the severity and number of violations of the health based NAAQS and achieving expeditious attainment of such standards. In order for a proposed transportation activity to conform to the SIP, the Clean Air Act specifies that such activity will not:

---

[37] USEPA memorandum dated September 4, 1992, entitled *Procedures for Processing Requests to Redesignate Areas to Attainment*, from John Calcagni, Director, Air Quality Management Division, to Regional Air Directors, page 6.

1) cause or contribute to any new violation of any standard in any area,

2) increase the frequency or severity of any existing violation of any standard in any area, or

3) delay timely attainment of any standard or any required interim emission reductions or any other milestones in any area.[38]

The Federal Transportation Conformity Rule provides the process by which the air quality impact of transportation plans, transportation improvement programs (TIPs), and projects will be analyzed. The agency[39] preparing plans (5-20 years), TIPs (3-5 years), or approving a transportation project must analyze the emissions expected from such a proposal in accordance with the Transportation Conformity Rule. The regional result of this analysis is then compared to the motor vehicle emissions budget.

2. Carbon Monoxide Transportation Conformity Budgets

For the purposes of transportation conformity, the emission budget is that portion of the total allowable emissions in the SIP emissions inventory that is allocated to on-road vehicles. The projected emissions from a plan, TIP, or project, estimated in accordance with the Transportation Conformity Rule, may not exceed the motor vehicle emissions budget contained in the appropriate SIP. Table 7 sets forth the total allowable carbon monoxide emissions for the five county area[40] that is allocated to on-road sources for the purposes of conformity. This transportation conformity budget supersedes all other previous carbon monoxide budgets and should be used for future transportation conformity determinations made by the regional metropolitan planning organization.

Table 7: On-Road Carbon Monoxide Transportation Conformity Budgets (tons per day)

Emission Source	1996	2007	2014
On-Road	927.69	492.41	490.45

The carbon monoxide emission budgets shown in Table 7 were derived from the on-road motor vehicle emission inventory for each of the five counties using the MOBILE5a-h model. These budgets are considered to be part of the Maintenance Plan and will become effective upon approval of this Maintenance Plan by the USEPA or upon determination by the USEPA that the proposed emission budgets are deemed adequate for conformity.

---

[38] 42 U.S.C. 7506(c)(1).

[39] For NJ such plans are prepared by the North Jersey Transportation Planning Authority for the five county area considered herein.

[40] This area includes Hudson, Essex, Bergen, Union, and Passaic counties.

VI. REQUEST FOR REDESIGNATION OF AREA TO ATTAINMENT

As specified by the Clean Air Act,[41] the State of New Jersey is requesting that the Administrator of the USEPA redesignate the northeastern carbon monoxide nonattainment area to attainment of the NAAQS for carbon monoxide. In support of this request, the NJDEP has and is providing the following:

1) a demonstration that the northeastern carbon monoxide nonattainment area has attained the NAAQS for carbon monoxide, demonstrated in accordance with the USEPA's current requirements for redesignation and maintenance for nonattainment areas;[42, 43]

2) sufficient information to permit the Administrator to fully approve New Jersey's SIP for the attainment of the carbon monoxide NAAQS under section 110(k) of the Act;

3) information showing that the improvement in air quality is due to permanent and enforceable reductions in emissions of carbon monoxide resulting from implementation of the SIP, applicable federal air pollution control regulations, and other permanent and enforceable reductions;

4) information showing that the State has met all requirements applicable to the northeastern carbon monoxide nonattainment area under section 110 and Part D of the Clean Air Act; and,

5) a Maintenance Plan that satisfies the requirements of the Act for maintenance plans.[44]

Each of these items is discussed in more detail below.

A. Attainment Demonstration

On August 7, 1998, the State submitted to the USEPA a demonstration of attainment for the five-county northeastern nonattainment area. This submittal contained air quality monitoring data and localized intersection modeling data demonstrating that the five-county area meets the NAAQS for carbon monoxide. On November 22, 1999, the USEPA determined that the New York-Northern New Jersey-Long Island carbon monoxide area had attained the carbon monoxide NAAQS.[45]

---

[41] 42 U.S.C. 7407(d)(3)(D).

[42] USEPA memorandum dated September 4, 1992, entitled *Procedures for Processing Requests to Redesignate Areas to Attainment*, from John Calcagni, Director, Air Quality Management Division, to Regional Air Directors.

[43] USEPA Memorandum dated October 14, 1994, entitled *Part D New Source Review Requirements for Areas Requesting Redesignation to Attainment*, from Mary D. Nichols, Assistant Administrator, Air and Radiation Division, to Regional Air Division Directors.

[44] 42 U.S.C. 7407(d)(3)(E).

[45] 64 FR 48970.

B. SIP Approval

All portions of New Jersey's carbon monoxide SIP have been fully approved by the USEPA except for the State's enhanced I/M program. The USEPA's action on New Jersey's enhanced I/M SIP is currently structured as an interim approval. There are two remaining elements needed for the USEPA to grant final approval to the State's enhanced I/M SIP. The first is an evaluation of the decentralized portion of New Jersey's program to validate the State's claim that it is 80 percent as effective as the centralized portion of the program. Second, in order to obtain final approval, the USEPA has requested that the State update its performance standard modeling to more realistically represent the State's Enhanced I/M program as it was implemented. This modeling included comparisons to the USEPA performance standard for carbon monoxide, as well as volatile organic compounds and oxides of nitrogen.

On May 4, 2001, New Jersey proposed a SIP revision that included the State's final National Highway Systems Designation Act (NHSDA) analysis supporting New Jersey's 80 percent credit claim for the decentralized portion of its enhanced I/M program. In addition, the May 4, 2001 proposed SIP revision also included revised performance standard modeling that demonstrated that the State could meet the applicable I/M performance standard with its enhanced I/M program, as implemented. A hearing on the proposed SIP revision was held on June 6, 2001, and the comment period ended June 13, 2001. The State has responded to those comments received and submitted the final SIP revision for the USEPA's review and approval on August 20, 2001. This submittal provided the USEPA with the remaining items needed for final approval of the State's enhanced I/M SIP. The USEPA proposed to approve the State's Enhanced I/M SIP on September 11, 2001, with comments due by November 11, 2001.[46, 47]

C. Permanent and Enforceable Improvement in Air Quality

As part of the August 7, 1998, Carbon Monoxide SIP revision, the State submitted to the USEPA a demonstration that the improvement in air quality within the northeastern nonattainment area is due to permanent and enforceable reductions in emissions of carbon monoxide. These reductions are a result of the implementation of the SIP, applicable federal air pollution control regulations, and other permanent and enforceable reductions. USEPA approved this portion of the SIP is anticipated.

D. Maintenance Plan

New Jersey's proposed carbon monoxide Maintenance Plan is presented in Section V of this document.

---

[46] 66 FR 47130.

[47] 66 FR 52560.

E. Section 110 Requirements and Part D Requirements

Section 110(a)(2) of the Clean Air Act contains general requirements for nonattainment plans. These requirements have been met by prior SIP submittals as discussed in Section II of this Redesignation Request.

Part D of the Clean Air Act consists of general requirements applicable to all areas that are designated nonattainment based on a violation of the NAAQS. The Part D requirements are presented and discussed below:

1. Section 172(c)(1), Reasonably Available Control Measures

   As presented in the August 7, 1998, Attainment Demonstration, the State has adopted such measures to attain the standard.

2. Section 172(c)(2), Reasonable Further Progress

   The requirements for reasonable further progress have meaning only for areas not attaining the standard, and are not relevant for redesignations.

3. Section 172(c)(3), Inventory

   The Act requires New Jersey to develop a "comprehensive, accurate, and current inventory of actual emissions from all sources."[48] The requirement for such an inventory is satisfied by the 1996 attainment emission inventory presented in Section V of this Redesignation Request.

4. Section 172(c)(4), New Source Review

   Pursuant to the USEPA guidance, a fully approved NSR Program is not required as part of a redesignation request as long as it is not relied upon for maintenance of the standard, and is not required as part of the contingency portion of the Maintenance Plan.[49] Such is the case in New Jersey. In this region, it should be noted that the emission reductions from the State's NSR program were not included in establishing the 1996 emission inventory "yardstick" correlating with attainment of the standard, nor is the NSR program relied upon for maintenance of the standard, or as a contingency measure.

5. Section 176(c)(2), Transportation Conformity Procedures

   The Clean Air Act required the USEPA to promulgate regulations governing transportation conformity. This was done on November 24, 1993. After the Federal Transportation Conformity Rule was promulgated in 1993, the USEPA determined that modifications to the

---

[48] 42 U.S.C. 7512a(a)(1).

[49] USEPA Memorandum dated October 14, 1994, entitled *Part D New Source Review Requirements for Areas Requesting Redesignation to Attainment*, from Mary D. Nichols, Assistant Administrator, Air and Radiation Division, to Regional Air Division Directors.

criteria and procedures contained in it would be necessary. On August 15, 1997, the USEPA published the third set of revisions to the Federal Transportation Conformity Rule (62 FR 43779). The Federal rule will remain in effect until such time that New Jersey submits a State SIP revision and it is approved.

6. Section 211(m)(1), Wintertime Oxygenated Gasoline

The Clean Air Act required New Jersey to adopt and implement a wintertime oxygenated fuels program by November 1, 1992, in all Consolidated Metropolitan Statistical Areas (CMSA) where the 1989 air quality design value exceeded 9.5 ppm.[50] Two nonattainment areas in New Jersey had a 1989 design value which exceeded 9.5 ppm: the area included in the New York-Northern New Jersey-Long Island CMSA and the area included in the Philadelphia-Wilmington-Trenton CMSA. On September 1, 1992, the NJDEP adopted rules meeting this requirement.[51]

In response to New Jersey's June 9, 1995, requests for redesignation, the USEPA redesignated to attainment both the Camden County carbon monoxide nonattainment area, which is included as part of the Philadelphia-Wilmington-Trenton CMSA, and the nine not-classified carbon monoxide areas throughout the State. Since the maintenance plans submitted in conjunction with each of these redesignation requests did not depend upon the wintertime oxygenated fuel regulations remaining in effect, the NJDEP, on November 20, 1995, proposed, and adopted through emergency rulemaking, rules that eliminated the wintertime oxygenated fuel program requirements for the southern part of the State.[52] The State then completed a concurrent adoption of these same regulations on February 5, 1996.[53] On December 7, 1997, the USEPA approved both New Jersey's redesignation requests for the Camden County nonattainment area and the nine not-classified areas and its removal of the wintertime oxygenated fuels program in the southern control area.[54] However, the wintertime oxygenated fuel program requirements remained in effect during the 4-month control period in the northeastern nonattainment area.

As part of its August 7, 1998, carbon monoxide SIP revision, the NJDEP removed the wintertime oxygenated fuels program in the northeastern nonattainment area. The decision to remove this program as a Carbon Monoxide SIP control measure was based on the NJDEP's ability to demonstrate that the northeastern carbon monoxide nonattainment area was in attainment of the carbon monoxide NAAQS (i.e., it was below the 9.5 ppm design value set forth at 42 U.S.C. §7545(m)). As such, the area was no longer required to implement a wintertime oxygenated fuels program. In addition, as discussed in Section V, the Maintenance Plan for the northeastern carbon monoxide nonattainment area does not depend

---

[50] 42 U.S.C. 7545(m)(1).

[51] N.J.A.C. 7:27-25.

[52] 27 N.J.R. 4731(a).

[53] 28 N.J.R. 851.

[54] 60 FR 62741.

upon the oxygenated fuel program remaining in effect. Instead, the northeastern area will continue to maintain the NAAQS, in part, through the emission benefits achieved from the Federal RFG program (which requires an oxygen content of 2.1 percent year round), Tier I new vehicle standards, the NLEV program, and New Jersey's current enhanced I/M program which uses phase-in cutpoints.

VII. CONCLUSION

New Jersey is committed to securing and maintaining healthy air quality for its citizens. Consistent with that commitment, the State has demonstrated that the northeastern area is in attainment of the health based NAAQS for carbon monoxide. Air quality monitoring data show a trend of improving carbon monoxide air quality over the past decade. These improvements are due to permanent and enforceable measures that the State and Federal Government have implemented, and not to favorable meteorology or other factors. Despite the growth in economic activity, VMT, and population that are expected to occur, the northeastern area is projected to continue to meet the health based carbon monoxide NAAQS through 2014. Continued attainment is due in large part to the measures contained in the proposed Maintenance Plan. The NJDEP will periodically track and evaluate carbon monoxide air concentrations and take appropriate steps to maintain the NAAQS. Consequently, the USEPA may redesignate the northeastern area to attainment with the carbon monoxide NAAQS.

VIII. PUBLIC PARTICIPATION

The notice of the proposed revision to New Jersey's Carbon Monoxide SIP, specifically the Request for Redesignation and Maintenance Plan for the New Jersey Portion of the New York-Northern New Jersey-Long Island carbon monoxide nonattainment area, appeared in four newspapers throughout the State on or before November 18, 2001. In addition, it appeared as a Miscellaneous Notice in the New Jersey Register on December 3, 2001. The proposed SIP revision was transmitted to the United States Environmental Protection Agency Region II Administrator on November 9, 2001. It was sent to the states within the Ozone Transport Region and other interested parties by November 19, 2001. Notice of the SIP Revision was also provided to over 1,200 potentially interested parties.

The Public hearing on the proposed Request for Redesignation occurred on December 18, 2001, at 10:00 a.m. in the Board of Public Utilities Building, Newark, New Jersey. The Notice of Availability of the proposed SIP Revision and Hearing Date and Location is provided in Appendix III, Attachment A.

The comment period closed on December 21, 2001. Appendix III of this document now also includes the legal notice, and certification that the advertisement did occur in compliance with 40 CFR 51.102.

At the public hearing, testimony was received from one party, the Public Service Enterprise Group of Newark, New Jersey supporting the redesignation. In addition, written comment was received from Exxon Mobil Refining and Supply Fuels Marketing also in support of the proposed redesignation. No comments were received that required changes to the document as it was proposed.