TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AGENDA ITEM REQUEST

for SIP Revision Adoption

AGENDA REQUESTED: September 7, 2016

DATE OF REQUEST: August 19, 2016

INDIVIDUAL TO CONTACT REGARDING CHANGES TO THIS REQUEST, IF NEEDED: Joyce Spencer-Nelson, (512) 239-5017

CAPTION: Docket No. 2015-1654-SIP. Consideration of the adoption of the Carbon Monoxide (CO) Limited Maintenance Plan State Implementation Plan (SIP) Revision for El Paso.

This SIP revision would satisfy Section 175A(b) of the Federal Clean Air Act, which requires states to submit an additional revision to the SIP eight years after redesignation of any area to attainment. This second maintenance plan must demonstrate continued attainment of the standard for 10 years after the expiration of the initial maintenance period. The SIP revision would demonstrate continued maintenance of the CO National Ambient Air Quality Standard for the period of October 2018 through October 2028. (Margaret Earnest, Nicolas Parke) (Non-Rule Project No. 2015-015-SIP-NR)

Steve Hagle, P.E.
Deputy Director

David Brymer
Division Director

Joyce Nelson
Agenda Coordinator

Copy to CCC Secretary? NO X YES

Texas Commission on Environmental Quality

Interoffice Memorandum

To: Commissioners **Date:** August 19, 2016

Thru: Bridget C. Bohac, Chief Clerk
Richard A. Hyde, P.E., Executive Director

From: Steve Hagle, P.E., Deputy Director
Office of Air

Docket No.: 2015-1654-SIP

Subject:
Commission Approval for Adoption of the Carbon Monoxide (CO) Limited Maintenance Plan (LMP) State Implementation Plan (SIP) Revision for El Paso
Non-Rule Project No. 2015-015-SIP-NR

Background and reason(s) for the SIP revision:
A portion of the City of El Paso was designated as a moderate nonattainment area for the eight-hour primary CO National Ambient Air Quality Standard (NAAQS) on November 15, 1990, with a December 31, 1995 attainment date. In January 2008, the Texas Commission on Environmental Quality (TCEQ) adopted a SIP revision incorporating the El Paso CO redesignation request and maintenance plan to meet the requirements outlined in the 1992 memo, Procedures for Processing Requests to Redesignate Areas to Attainment. The United States Environmental Protection Agency (EPA) published approval of the redesignation request, 10-year maintenance plan, and associated motor vehicle emissions budget (MVEB) in the *Federal Register* (FR) on August 4, 2008 (73 FR 45162), with an effective date of October 3, 2008.

The Federal Clean Air Act (FCAA), Section 175A(b) requires the submission of a second maintenance plan eight years after the redesignation of an area that covers the second 10 years of the maintenance planning period. Therefore, an updated maintenance plan is required for the period of October 2018 through October 2028. The EPA provides maintenance areas that were originally classified as moderate and are currently maintaining CO levels of no more than 85% of the eight-hour CO standard of 9 parts per million (ppm), i.e., with design values less than 7.65 ppm, the option of preparing an LMP for the second 10-year plan. According to the October 6, 1995 memo, *Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas*[1], design values for an LMP are based upon the higher of the second highest readings for all monitors in the maintenance area for the two most recent years of data. The 2013 through 2014 CO design value for El Paso is 2.6 ppm, and further supported by the 2014 through 2015 design value of 2.8 ppm, which demonstrates that the design value in the area falls well below 85% of the NAAQS. Based on this design value, El Paso qualifies for an LMP, which requires an attainment inventory, a maintenance demonstration, monitoring network verification, a contingency plan, and conformity determination requirements. The TCEQ is required to submit this LMP SIP revision to the EPA by October 3, 2016.

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[1] Memorandum from John Calcagni, Director, Air Quality Management Division (MD-15), September 4, 1992, *Procedures for Processing Requests to Redesignate Areas to Attainment.* http://www3.epa.gov/ozonedesignations/1997standards/redesig/documents/Redesignation-Guidance-9-04-92.pdf

Scope of the SIP revision:
Guidance for development of an LMP was provided in an October 6, 1995 memo, *Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas*[2]. This LMP SIP revision would include an attainment emissions inventory, maintenance demonstration, monitoring network verification, and contingency plan. As part of the LMP, there is no longer a requirement to set a motor vehicle emissions budget (MVEB) or conduct new or future travel demand or air quality modeling. Transportation conformity demonstrations are still required in an area with an approved LMP even though the area is no longer required to use MVEBs and regional emissions analyses to satisfy those requirements. Transportation conformity may be satisfied by demonstrating appropriate consultation, timely implementation of transportation control measures, and compliance with CO hot-spot requirements.

A.) Summary of what the SIP revision will do:
This LMP SIP revision satisfies FCAA, §175A(b), which requires the state to submit a second 10-year maintenance plan for the portion of El Paso that was redesignated to attainment of the CO NAAQS on October 3, 2008. The proposed SIP revision would demonstrate through design value and emission inventory trends that the El Paso maintenance area will continue to maintain the CO NAAQS for the second 10 years of the maintenance planning period (October 2018 through October 2028).

B.) Scope required by federal regulations or state statutes:
FCAA, §175A(b), requires states to submit an additional revision to the SIP eight years after redesignation of any area as an attainment area. This second maintenance plan must demonstrate continued attainment of the standard 10 years after the expiration of the initial maintenance period.

C.) Additional staff recommendations that are not required by federal rule or state statute:
None

Statutory authority:
The authority to propose and adopt this SIP revision is derived from Texas Health and Safety Code, Texas Clean Air Act (TCAA), §382.002, which provides that the policy and purpose of the TCAA is to safeguard the state's air resources from pollution; TCAA, §382.011, which authorizes the commission to control the quality of the state's air; and §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air, and Texas Water Code, §5.102, General Powers, and §5.013, General Jurisdiction of Commission.

FCAA, 42 USC, §7410, et seq., requires states to submit SIP revisions that specify the manner in which the NAAQS will be achieved and maintained within each air quality

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[2] Memorandum from Joseph W. Paisie, Group Leader, Integrated Policy and Strategies Group (MD-15), October 6, 1995, *Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas.* http://www.epa.gov/otaq/stateresources/transconf/policy/1995lmp-co.pdf

control region of the state. The EPA's memorandum of October 6, 1995, stipulates a list of core provisions for submitting a LMP for CO.

Effect on the:

A.) Regulated community:
If the LMP is approved by the EPA, future transportation conformity determinations would be greatly simplified, eliminating the requirements for a quantitative regional emissions analysis for CO.

B.) Public:
The public would benefit from continued maintenance of air quality.

C.) Agency programs:
Future staff analyses and interagency consultation regarding transportation conformity determinations and transportation plans and programs as they relate to the El Paso CO attainment area will be substantially simplified since a regional emissions analysis would not be required.

Stakeholder meetings:
The proposed SIP revision went through a public review and comment period including one public hearing.

Public comment:
The public comment period opened on March 7, 2016 and closed on April 18, 2016. The TCEQ held a public hearing in El Paso on April 13, 2016, at 2:00 p.m. MST. No one who attended the hearing chose to provide oral comments. No comments were received for this LMP SIP revision.

Significant changes from proposal:
None

Potential controversial concerns and legislative interest:
There are no controversial concerns.

Does this SIP revision affect any current policies or require development of new policies?
This SIP revision will not affect any current policies nor require development of new policies.

What are the consequences if this SIP revision does not go forward? Are there alternatives to SIP revision?
The effective date for El Paso's redesignation to attainment for the eight-hour CO NAAQS was October 3, 2008. An updated maintenance plan is required by §175A(b) of the FCAA eight years after the redesignation of any area as an attainment area. Failure to submit a SIP revision by the deadline starts a two-year clock for potential promulgation of a federal implementation plan for Texas. Additionally, FCAA, §179 sanctions could be applied if

the state does not submit the required maintenance plan (prohibition on highway funding and increased emission offsets).

As an alternative to an LMP, the state could submit a full maintenance plan SIP revision, which would require an increased time commitment and more extensive staff and agency resources.

Staff's recommendation is to submit an LMP SIP revision, which would satisfy the requirements of §175A(b) of the FCAA.

Key points in the adoption SIP revision schedule:
Anticipated adoption date: September 7, 2016
EPA due date: October, 3, 2016

Agency contacts:
Margaret Earnest, SIP Project Manager, Air Quality Division, (512) 239-4581
Nicolas Parke, Staff Attorney, (512) 239-1320
Joyce Spencer-Nelson, Division Liaison, (512) 239-5017

cc: Chief Clerk, 2 copies
Executive Director's Office
Marshall Coover
Erin Chancellor
Stephen Tatum
Jim Rizk
Office of General Counsel
Joyce Spencer-Nelson
Margaret Earnest
Nicolas Parke
Terry Salem

REVISIONS TO THE STATE OF TEXAS AIR QUALITY IMPLEMENTATION PLAN FOR THE CONTROL OF CARBON MONOXIDE AIR POLLUTION

EL PASO CARBON MONOXIDE (CO) MAINTENANCE AREA

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. BOX 13087
AUSTIN, TEXAS 78711-3087

EL PASO LIMITED MAINTENANCE PLAN (LMP) FOR THE EIGHT-HOUR PRIMARY CARBON MONOXIDE NATIONAL AMBIENT AIR QUALITY STANDARD (NAAQS)

PROJECT NUMBER 2015-015-SIP-NR

Adoption
September 7, 2016

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EXECUTIVE SUMMARY

A portion of the City of El Paso[1] was designated as a moderate nonattainment area for the eight-hour primary carbon monoxide (CO) National Ambient Air Quality Standard (NAAQS) on November 15, 1990, with a December 31, 1995 attainment date. In January 2008, the Texas Commission on Environmental Quality (TCEQ) adopted a state implementation plan (SIP) revision incorporating the El Paso CO redesignation request and maintenance plan to meet the requirements outlined in the 1992 United States Environmental Protection Agency (EPA) memo, *Procedures for Processing Requests to Redesignate Areas to Attainment*[2]. The EPA published approval of the redesignation request, maintenance plan, and associated motor vehicle emissions budget in the *Federal Register* (FR) on August 4, 2008 (73 FR 45162), with an effective date of October 3, 2008.

The Federal Clean Air Act, Section 175A(b) requires the submission of a second maintenance plan eight years after the redesignation of an area that covers a second 10-year maintenance planning period. Therefore, an updated maintenance plan is required for the period of October 2018 through October 2028. The EPA provides maintenance areas that were originally classified as moderate and are currently maintaining CO levels of no more than 85% of the eight-hour primary standard of 9 parts per million (ppm), i.e., with design values less than 7.65 ppm, the option of preparing a limited maintenance plan (LMP) for the second 10-year plan. Design values are based upon the highest of the second highest readings for all monitors in the maintenance area for the two most recent years of data (See Appendix A: *Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment* Areas). Based on the 2013 through 2014 design value of 2.6 ppm, (and further supported by the 2014 through 2015 design value of 2.8 ppm), El Paso qualifies for an LMP, which requires an attainment inventory, a maintenance demonstration, monitoring network verification, a contingency plan, and conformity determination requirements. The TCEQ is required to submit this LMP SIP revision to the EPA by October 3, 2016.

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[1] The El Paso CO nonattainment area is that portion of the City of El Paso bounded on the north by Highway 10 from Porfirio Diaz Street to Raynolds Street, Raynolds Street from Highway 10 to the Southern Pacific Railroad lines, the Southern Pacific Railroad lines from Raynolds Street to Highway 62, Highway 62 from the Southern Pacific Railroad Lines to Highway 20, and Highway 20 to the Texas-Mexico border; bounded on the south by the Texas-Mexico border from Polo Inn Road to Porfirio Diaz Street; and bounded on the west by Porfirio Diaz Street from the Texas-Mexico border to Highway 10.

[2] Memorandum from John Calcagni, Director, Air Quality Management Division (MD-15), September 4, 1992, *Procedures for Processing Requests to Redesignate Areas to Attainment*. http://www3.epa.gov/ozonedesignations/1997standards/redesig/documents/Redesignation-Guidance-9-04-92.pdf

SECTION V-A: LEGAL AUTHORITY

General

The Texas Commission on Environmental Quality (TCEQ) has the legal authority to implement, maintain, and enforce the National Ambient Air Quality Standards (NAAQS) and to control the quality of the state's air, including maintaining adequate visibility.

The first air pollution control act, known as the Clean Air Act of Texas, was passed by the Texas Legislature in 1965. In 1967, the Clean Air Act of Texas was superseded by a more comprehensive statute, the Texas Clean Air Act (TCAA), found in Article 4477-5, Vernon's Texas Civil Statutes. The legislature amended the TCAA in 1969, 1971, 1973, 1979, 1985, 1987, 1989, 1991, 1993, 1995, 1997, 1999, 2001, 2003, 2005, 2007, 2009, 2011, 2013, and 2015. In 1989, the TCAA was codified as Chapter 382 of the Texas Health and Safety Code.

Originally, the TCAA stated that the Texas Air Control Board (TACB) is the state air pollution control agency and is the principal authority in the state on matters relating to the quality of air resources. In 1991, the legislature abolished the TACB effective September 1, 1993, and its powers, duties, responsibilities, and functions were transferred to the Texas Natural Resource Conservation Commission (TNRCC). With the creation of the TNRCC, the authority over air quality is found in both the Texas Water Code and the TCAA. Specifically, the authority of the TNRCC is found in Chapters 5 and 7. Chapter 5, Subchapters A - F, H - J, and L, include the general provisions, organization, and general powers and duties of the TNRCC, and the responsibilities and authority of the executive director. Chapter 5 also authorizes the TNRCC to implement action when emergency conditions arise and to conduct hearings. Chapter 7 gives the TNRCC enforcement authority. In 2001, the 77th Texas Legislature continued the existence of the TNRCC until September 1, 2013, and changed the name of the TNRCC to the TCEQ. In 2009, the 81st Texas Legislature, during a special session, amended Section 5.014 of the Texas Water Code, changing the expiration date of the TCEQ to September 1, 2011, unless continued in existence by the Texas Sunset Act. In 2011, the 82nd Texas Legislature continued the existence of the TCEQ until 2023.

The TCAA specifically authorizes the TCEQ to establish the level of quality to be maintained in the state's air and to control the quality of the state's air by preparing and developing a general, comprehensive plan. The TCAA, Subchapters A - D, also authorize the TCEQ to collect information to enable the commission to develop an inventory of emissions; to conduct research and investigations; to enter property and examine records; to prescribe monitoring requirements; to institute enforcement proceedings; to enter into contracts and execute instruments; to formulate rules; to issue orders taking into consideration factors bearing upon health, welfare, social and economic factors, and practicability and reasonableness; to conduct hearings; to establish air quality control regions; to encourage cooperation with citizens' groups and other agencies and political subdivisions of the state as well as with industries and the federal government; and to establish and operate a system of permits for construction or modification of facilities.

Local government authority is found in Subchapter E of the TCAA. Local governments have the same power as the TCEQ to enter property and make inspections. They also may make recommendations to the commission concerning any action of the TCEQ that affects their territorial jurisdiction, may bring enforcement actions, and may execute cooperative agreements with the TCEQ or other local governments. In addition, a city or town may enact and enforce ordinances for the control and abatement of air pollution not inconsistent with the provisions of the TCAA and the rules or orders of the commission.

Subchapters G and H of the TCAA authorize the TCEQ to establish vehicle inspection and maintenance programs in certain areas of the state, consistent with the requirements of the Federal Clean Air Act; coordinate with federal, state, and local transportation planning agencies to develop and implement transportation programs and measures necessary to attain and maintain the NAAQS; establish gasoline volatility and low emission diesel standards; and fund and authorize participating counties to implement vehicle repair assistance, retrofit, and accelerated vehicle retirement programs.

Applicable Law

The following statutes and rules provide necessary authority to adopt and implement the state implementation plan (SIP). The rules listed below have previously been submitted as part of the SIP.

Statutes

All sections of each subchapter are included, unless otherwise noted.

TEXAS HEALTH & SAFETY CODE, Chapter 382	September 1, 2015
TEXAS WATER CODE	September 1, 2015

Chapter 5: Texas Natural Resource Conservation Commission

- Subchapter A: General Provisions
- Subchapter B: Organization of the Texas Natural Resource Conservation Commission
- Subchapter C: Texas Natural Resource Conservation Commission
- Subchapter D: General Powers and Duties of the Commission
- Subchapter E: Administrative Provisions for Commission
- Subchapter F: Executive Director (except §§5.225, 5.226, 5.227, 5.2275, 5.231, 5.232, and 5.236)
- Subchapter H: Delegation of Hearings
- Subchapter I: Judicial Review
- Subchapter J: Consolidated Permit Processing
- Subchapter L: Emergency and Temporary Orders (§§5.514, 5.5145, and 5.515 only)
- Subchapter M: Environmental Permitting Procedures (§5.558 only)

Chapter 7: Enforcement

- Subchapter A: General Provisions (§§7.001, 7.002, 7.0025, 7.004, and 7.005 only)
- Subchapter B: Corrective Action and Injunctive Relief (§7.032 only)
- Subchapter C: Administrative Penalties
- Subchapter D: Civil Penalties (except §7.109)
- Subchapter E: Criminal Offenses and Penalties: §§7.177, 7.179-7.183

Rules

All of the following rules are found in 30 Texas Administrative Code, as of the following latest effective dates:

Chapter 7: Memoranda of Understanding, §§7.110 and 7.119	December 13, 1996 and May 2, 2002
Chapter 19: Electronic Reporting	March 15, 2007
Chapter 35: Subchapters A-C, K: Emergency and Temporary Orders and Permits; Temporary Suspension or Amendment of Permit Conditions	July 20, 2006

Chapter 39: Public Notice, §§39.402(a)(1) - (6), (8), and (10) - (12), 39.405(f)(3) and (g), (h)(1)(A) - (4), (6), (8) - (11), (i) and (j), 39.407, 39.409, 39.411(a), (e)(1) - (4)(A)(i) and (iii), (4)(B), (5)(A) and (B), and (6) - (10), (11)(A)(i) and (iii) and (iv), (11)(B) - (F), (13) and (15), and (f)(1) - (8), (g) and (h), 39.418(a), (b)(2)(A), (b)(3), and (c), 39.419(e), 39.420 (c)(1)(A) - (D)(i)(I) and (II), (D)(ii), (c)(2), (d) - (e), and (h), and 39.601 - 39.605	December 31, 2015
Chapter 55: Requests for Reconsideration and Contested Case Hearings; Public Comment, §§55.150, 55.152(a)(1), (2), (5), and (6) and (b), 55.154(a), (b), (c)(1) - (3), and (5), and (d) - (g), and 55.156(a), (b), (c)(1), (e), and (g)	December 31, 2015
Chapter 101: General Air Quality Rules	June 25, 2015
Chapter 106: Permits by Rule, Subchapter A	April 17, 2014
Chapter 111: Control of Air Pollution from Visible Emissions and Particulate Matter	February 6, 2014
Chapter 112: Control of Air Pollution from Sulfur Compounds	July 16, 1997
Chapter 113: Standards of Performance for Hazardous Air Pollutants and for Designated Facilities and Pollutants	May 14, 2009
Chapter 114: Control of Air Pollution from Motor Vehicles	May 21, 2015
Chapter 115: Control of Air Pollution from Volatile Organic Compounds	June 25, 2015
Chapter 116: Permits for New Construction or Modification	July 31, 2014
Chapter 117: Control of Air Pollution from Nitrogen Compounds	June 25, 2015
Chapter 118: Control of Air Pollution Episodes	March 5, 2000
Chapter 122: §122.122: Potential to Emit	April 17, 2014
Chapter 122: §122.215: Minor Permit Revisions	June 3, 2001
Chapter 122: §122.216: Applications for Minor Permit Revisions	June 3, 2001
Chapter 122: §122.217: Procedures for Minor Permit Revisions	December 11, 2002
Chapter 122: §122.218: Minor Permit Revision Procedures for Permit Revisions Involving the Use of Economic Incentives, Marketable Permits, and Emissions Trading	June 3, 2001

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I. Site Specific (No change)
J. Mobile Sources Strategies (No change)
K. Clean Air Interstate Rule (No change)
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LIST OF ACRONYMS

AERR	Air Emissions Reporting Requirements
ASLRRA	American Short Line and Regional Railroad Association
CFR	Code of Federal Regulations
CO	carbon monoxide
EDMS	United States Federal Aviation Administration's Emissions and Dispersion Modeling System
EI	emissions inventory
EIA	United States Energy Information Administration
EPA	United States Environmental Protection Agency
ERG	Eastern Research Group
FCAA	Federal Clean Air Act
FR	*Federal Register*
I/M	inspection and maintenance
LMP	limited maintenance plan
MOVES	Motor Vehicle Emissions Simulator
MPO	metropolitan planning organization
MVEB	motor vehicle emissions budget
NAAQS	National Ambient Air Quality Standard
NEI	National Emissions Inventory
NMOG	non-methane organic gases
NMOG+NO_X	non-methane organic gases and nitrogen oxides
NO_X	nitrogen oxides
PM	particulate matter
ppm	parts per million
SIP	State Implementation Plan
STARS	State of Texas Air Reporting System
TAC	Texas Administrative Code
TACB	Texas Air Control Board
TCAA	Texas Clean Air Act
TCEQ	Texas Commission on Environmental Quality
TDM	travel demand model
TexN	Texas NONROAD
TNRCC	Texas Natural Resource Conservation Commission

tpd	tons per day
TSI	two-speed idle
VMT	vehicle miles traveled

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CHAPTER 1: GENERAL INFORMATION

1.1 PURPOSE OF THE PLAN

This state implementation plan (SIP) revision satisfies Federal Clean Air Act, §175A(b), which requires the state to submit a second 10-year maintenance plan for the portion of the City of El Paso that was redesignated to attainment of the carbon monoxide (CO) National Ambient Air Quality Standard (NAAQS) on October 3, 2008. Based on monitoring data from 2013 through 2014, the maintenance area qualifies for a Limited Maintenance Plan (LMP). Monitoring data for 2015 also indicates that the area qualifies for an LMP. The LMP would demonstrate through design value and emission inventory trends that this area will remain in attainment of the eight-hour primary CO NAAQS for the second 10-year maintenance period of October 2018 through October 2028.

1.2 BACKGROUND

"The History of the Texas State Implementation Plan (SIP)," a comprehensive overview of the SIP revisions submitted to the United States Environmental Protection Agency (EPA) by the State of Texas, is available on the Introduction to the SIP Web page (http://www.tceq.texas.gov/airquality/sip/sipintro.html#History) on the Texas Commission on Environmental Quality's (TCEQ) website (http://www.tceq.texas.gov).

1.2.1 Introduction

CO is a colorless, odorless, poisonous gas that reduces the ability of the blood to carry oxygen to vital tissues. The mechanism of toxicity believed to be associated with health effects of greatest concern from CO exposure is hypoxia induced by elevated carboxyhemoglobin levels in the blood. At concentrations above 35 ppm, CO can adversely affect individuals with heart disease and can decrease exercise performance in young, healthy persons. Exposure to CO at concentrations of 100 to 200 parts per million (ppm) can cause headache, dizziness, nausea and fatigue after one to three hours of exposure. At higher concentrations, such as 800 ppm, exposure to CO can cause collapse and unconsciousness after one hour of exposure and death within two to three hours of exposure.

CO results from the incomplete combustion of carbon-containing compounds such as wood, coal, and liquid and gaseous fuels. Its formation is enhanced when the supply of oxygen is inadequate for the complete oxidation of fuels to carbon dioxide. Most CO emissions in El Paso result from the incomplete combustion of gasoline by motor vehicles. Optimal combustion of gasoline occurs in warmer ambient temperatures because fuel combustion and pollution control equipment are more efficient at warmer temperatures. During the winter months, vehicles emit larger amounts of CO due to cold starts and longer warm-up periods.

The City of El Paso is located in the Paso del Norte airshed region, which is comprised of El Paso, Texas; Ciudad Juárez, Mexico; and Doña Ana County, New Mexico. The CO maintenance area of El Paso is situated in a basin formed by the Rio Grande river valley between the Franklin and Juárez Mountains. Due to its geography, El Paso is prone to temperature inversions, resulting in a low atmospheric mixing height and poor dispersion of pollutants. These conditions are more common during the winter months.

The two primary NAAQS for CO are 9.0 ppm for an eight-hour average concentration and 35 ppm for a one-hour average concentration; neither may be exceeded more than once per year. Both primary standards are based on an annual number of exceedance days, and violations

occur when there is more than one exceedance of either primary standard in any one calendar year (40 Code of Federal Regulation [CFR] §50.8).

1.2.2 History

A portion of the City of El Paso was designated a moderate nonattainment area for the eight-hour primary CO NAAQS on November 15, 1990, with a December 31, 1995 attainment date. Texas submitted a revision to the SIP for the El Paso CO moderate nonattainment area in September 1995, which was supplemented in February 1998. This submittal included air quality modeling demonstrating that El Paso would attain the CO NAAQS but for emissions emanating from outside of the United States, as provided for by Section 179B of the Federal Clean Air Act (FCAA). The EPA published approval of this SIP revision in the *Federal Register* (FR) in July 2003[3].

In January 2006, the TCEQ submitted a CO Redesignation Request and Maintenance Plan SIP revision for El Paso. The EPA published a direct final approval on January 23, 2007[4]. However, before the comment period closed, the EPA received adverse comments and withdrew its final approval on March 26, 2007[5].

On January 30, 2008, the TCEQ adopted a SIP revision modifying the January 2006 El Paso CO maintenance plan to meet the requirements outlined in the 1992 memo, *Procedures for Processing Requests to Redesignate Areas to Attainment*[6]. The EPA published approval of the redesignation request, maintenance plan, and associated motor vehicle emissions budget (MVEB) on August 4, 2008 (73 FR 45162), with an effective date of October 3, 2008.

1.2.3 Limited Maintenance Plan (LMP)

The FCAA, Section 175A(b) requires the submission of a second maintenance plan eight years after the redesignation of an area that covers a second 10-year maintenance planning period. Therefore, an updated maintenance plan is required for the period of October 2018 through October 2028. The EPA provides maintenance areas that were originally classified as moderate and are currently maintaining air quality of no more than 85% of the eight-hour primary CO standard of 9 ppm, i.e., with design values less than 7.65 ppm, the option of preparing an LMP for the second 10-year plan. Design values for CO for the LMP are based upon the highest of the second highest readings for all monitors within the maintenance area for the two most recent years of data (See Appendix A: *Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas*). The 2013 through 2014 CO design value for El Paso is 2.6 ppm, which demonstrates that the design value in the maintenance area falls well below 85% of the NAAQS. The 2014 through 2015 design value is 2.8 ppm, which is also well below 85% of the NAAQS. Based on these design values, El Paso qualifies for an LMP, which requires an attainment

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[3] Approval and Promulgation of Implementation Plans for Texas; Approval of Section 179B Demonstration of Attainment, Carbon Monoxide Motor Vehicle Emissions Budget for Conformity, and Contingency Measure for El Paso Carbon Monoxide Nonattainment Area, 68 FR 39457 (July 2, 2003).
[4] Approval and Promulgation of Implementation Plans; Texas; El Paso County Carbon Monoxide Redesignation to Attainment, and Approval of Maintenance Plan, 72 FR 2776 (January 23, 2007).
[5] Approval and Promulgation of Implementation Plans; Texas; El Paso Carbon Monoxide Redesignation to Attainment, and Approval of Maintenance Plan, 72 FR 14043 (March 26, 2007).
[6] Memorandum from John Calcagni, Director, Air Quality Management Division (MD-15), September 4, 1992, *Procedures for Processing Requests to Redesignate Areas to Attainment*. http://www3.epa.gov/ozonedesignations/1997standards/redesig/documents/Redesignation-Guidance-9-04-92.pdf

inventory, a maintenance demonstration, monitoring network verification, a contingency plan, and conformity determination requirements.

Guidance for development of an LMP was provided in an October 1995 EPA memo titled *Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas (*see Appendix A). While the guidance does not explicitly include moderate nonattainment areas, the EPA has recently approved similar LMP SIP revisions for CO maintenance areas in Alaska[7] and North Carolina[8]. According to the final rule issued for the Anchorage, Alaska area, "the EPA has determined that the LMP Option for CO is also available to all states as part of the §175A(b) update to the maintenance plans, regardless of the original nonattainment classification, or lack thereof."

An LMP has less stringent requirements than that of a traditional maintenance plan. An LMP requires the development of an attainment emissions inventory for a typical winter day, but does not require projected future years emissions inventories as is required for a full maintenance plan. The maintenance demonstration requirement is met if the monitoring data shows that the area is meeting the air quality criteria of the LMP. The LMP requires continued operation of an EPA-approved air quality monitoring network to verify the attainment status over the maintenance period. A contingency plan is also required. Lastly, an LMP does not set an MVEB and does not require new or future travel demand modeling or air quality modeling.

1.3 PUBLIC HEARING AND COMMENT INFORMATION

The public comment period opened on March 7, 2016 and closed on April 18, 2016. Notice of the public hearing was published in the *Texas Register*, the Austin American-Statesman, the El Paso Times, and El Paso y Más. Written comments were accepted via fax, or through the eComments (http://www1.tceq.texas.gov/rules/ecomments/index.cfm) system. The TCEQ conducted a public hearing in El Paso on April 13, 2016, at 2:00 p.m. (MST). There were no comments submitted in regard to the proposed SIP revision.

An electronic version of this SIP revision and appendices can be found on the TCEQ's El Paso: Latest CO Planning Activities Web page (https://www.tceq.texas.gov/airquality/sip/elp/elp-latest-co).

1.4 SOCIAL AND ECONOMIC CONSIDERATIONS

Because rulemaking is not a part of this SIP revision, there are no changes that would have an impact on society or the economy.

1.5 FISCAL AND MANPOWER RESOURCES

The TCEQ has determined that its fiscal and manpower resources are adequate and will not be adversely affected through the implementation of this plan.

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[7] Approval and Promulgation of State Implementation Plans: Alaska; Anchorage Carbon Monoxide Limited Maintenance Plan and State Implementation Plan Revisions, 79 FR 11707 (March 3, 2014).
[8] Approval and Promulgation of Air Quality Implementation Plans; Charlotte, Raleigh/Durham and Winston-Salem Carbon Monoxide Limited Maintenance Plan, 78 FR 37118 (June 20, 2013).

1.6 COORDINATION WITH LOCAL AGENCIES

The TCEQ has determined that there will be no assignment to local agencies. However, pre-existing assignments to local agencies regarding various enforcement activities remain in effect and could be used if enforcement activities are delegated to the TCEQ from the EPA.

1.7 ORGANIZATIONS RESPONSIBLE FOR DEVELOPMENT, IMPLEMENTATION, AND ENFORCEMENT

The TCEQ is the agency delegated authority by the Texas Legislature regarding the protection of air quality in the State of Texas. Other local government entities have limited authority regarding air quality matters in the State of Texas.

1.8 DATA AVAILABILITY

The TCEQ affirms that it will retain all data used in the preparation of this SIP revision. All supporting documents and data are publicly available via the Texas State Implementation Plan Web page (http://www.tceq.texas.gov/airquality/sip/) or are available from the TCEQ upon request.

CHAPTER 2: ATTAINMENT EMISSIONS INVENTORY

2.1 OVERVIEW

The Texas Commission on Environmental Quality (TCEQ) developed carbon monoxide (CO) emissions inventories (EI) for the El Paso CO maintenance area in accordance with the Federal Clean Air Act, Section 187(a)(5). The EI includes the source types present in the designated area, the amount of CO emitted on a typical winter weekday, and the types of processes and control devices employed at each industrial site or for each area and mobile source category.

The EI provides data for a variety of air quality planning tasks for state implementation plan (SIP) development purposes, including establishing baseline levels, calculating reduction targets, control strategy development for achieving the required emission reductions, emission input into air quality simulation models, and tracking actual emissions reductions against the established emissions growth and control budgets. Emissions inventories also provide a way to demonstrate that attainment of the CO standard in El Paso will be maintained. The total 2014 CO winter weekday emissions for the maintenance area were summarized from the estimates developed for the four general categories of emission sources: point, area, on-road mobile, and non-road mobile.

2.2 POINT SOURCES

Point source emissions data are collected annually from sites that meet the reporting requirements of 30 Texas Administrative Code (TAC) §101.10. To collect the data, the TCEQ sends courtesy notices to all sites identified as potentially meeting the reporting requirements of 30 TAC §101.10. Companies are required to report emissions data and to provide sample calculations used to determine the emissions in accordance with detailed guidance. The guidance documents are available at the TCEQ Point Source Emissions Inventory Web page (http://www.tceq.texas.gov/airquality/point-source-ei/psei.html). Information characterizing the process equipment, the abatement units, and the emission points is also required. The details concerning the point source inventory development for this SIP revision are documented in Section 6.2.2: *Point Sources*.

2.3 AREA SOURCES

Stationary sources that do not meet the reporting requirements for point sources are classified as area sources. Area sources are small-scale industrial, commercial, institutional, and residential sources that generate emissions. Emissions are calculated and reported at the county level. Examples of area sources include: printing operations, industrial coatings, degreasing solvents, architectural coatings, gasoline service station underground tank filling, vehicle refueling operations, stationary source fossil fuel combustion, outdoor refuse burning, and structure fires. With some exceptions, area source emissions are calculated by multiplying an established emissions factor (emissions per unit of activity) by the appropriate activity or activity surrogate responsible for generating emissions. Population is one of the more commonly used activity surrogates. Other activity data include the amount of gasoline sold in an area, employment by industry type, and crude oil and natural gas production. The details concerning the area source inventory development for this SIP revision are documented in Section 6.2.3: *Area Sources*.

2.4 NON-ROAD MOBILE SOURCES

Non-road vehicles do not typically operate on roads or highways and are often referred to as off-road or off-highway vehicles. The non-road source category is composed of a diverse collection of equipment. Non-road emissions sources include but are not limited to: agricultural equipment, construction and mining equipment, lawn and garden equipment, aircraft, and

locomotives. Emissions inventories for non-road sources are developed as subcategories that include: NONROAD model categories, airports, drilling rigs, and locomotives. The details concerning the non-road mobile source inventory development for this SIP revision are documented in Section 6.2.4: *Non-Road Mobile Sources*.

2.5 ON-ROAD MOBILE SOURCES

On-road mobile emission sources consist of automobiles, trucks, motorcycles, and other motor vehicles traveling on public roadways. On-road mobile source emissions are usually categorized as either combustion-related emissions or evaporative hydrocarbon emissions. Combustion-related emissions are estimated for vehicle engine exhaust. Evaporative hydrocarbon emissions are estimated for the fuel tank and other evaporative-leak sources on the vehicle. The details concerning the on-road inventory development for this SIP revision are documented in Section 6.2.5: *On-Road Mobile Sources*.

CHAPTER 3: ATTAINMENT OF THE CARBON MONOXIDE (CO) STANDARD (NO CHANGE)

CHAPTER 4: EL PASO CARBON MONOXIDE HOT SPOT ANALYSIS (NO CHANGE)

CHAPTER 5: MONITORING NETWORK

This Limited Maintenance Plan (LMP) contains provisions for continued operation of a United States Environmental Protection Agency (EPA)-approved air quality monitoring network in accordance with 40 Code of Federal Regulations (CFR) Part 58. The monitoring network serves to verify that carbon monoxide (CO) levels in El Paso do not approach violation levels. To verify that the maintenance area remains in attainment, the Texas Commission on Environmental Quality (TCEQ) will continue to operate an appropriate air monitoring network. The air monitoring results will reveal any changes in the ambient air quality, as well as assist the TCEQ in determining whether or not it is necessary to implement any contingency measures. The state will continue to work with the EPA through the air monitoring network review process, as required by 40 CFR Part 58, to determine: the adequacy of the CO monitoring network; if additional monitoring is needed; and when monitoring can be discontinued. Air monitoring data will continue to be quality assured according to the requirements in the EPA's regulations.

The limited maintenance demonstration in this document relies upon CO monitor data for 2013 through 2014 to determine the design value, which is further supported by the 2014 through 2015 design value. Figure 5-1: *El Paso County Monitor Locations* shows the locations of all CO monitors in El Paso County with valid 2013 through 2015 eight-hour CO design values.

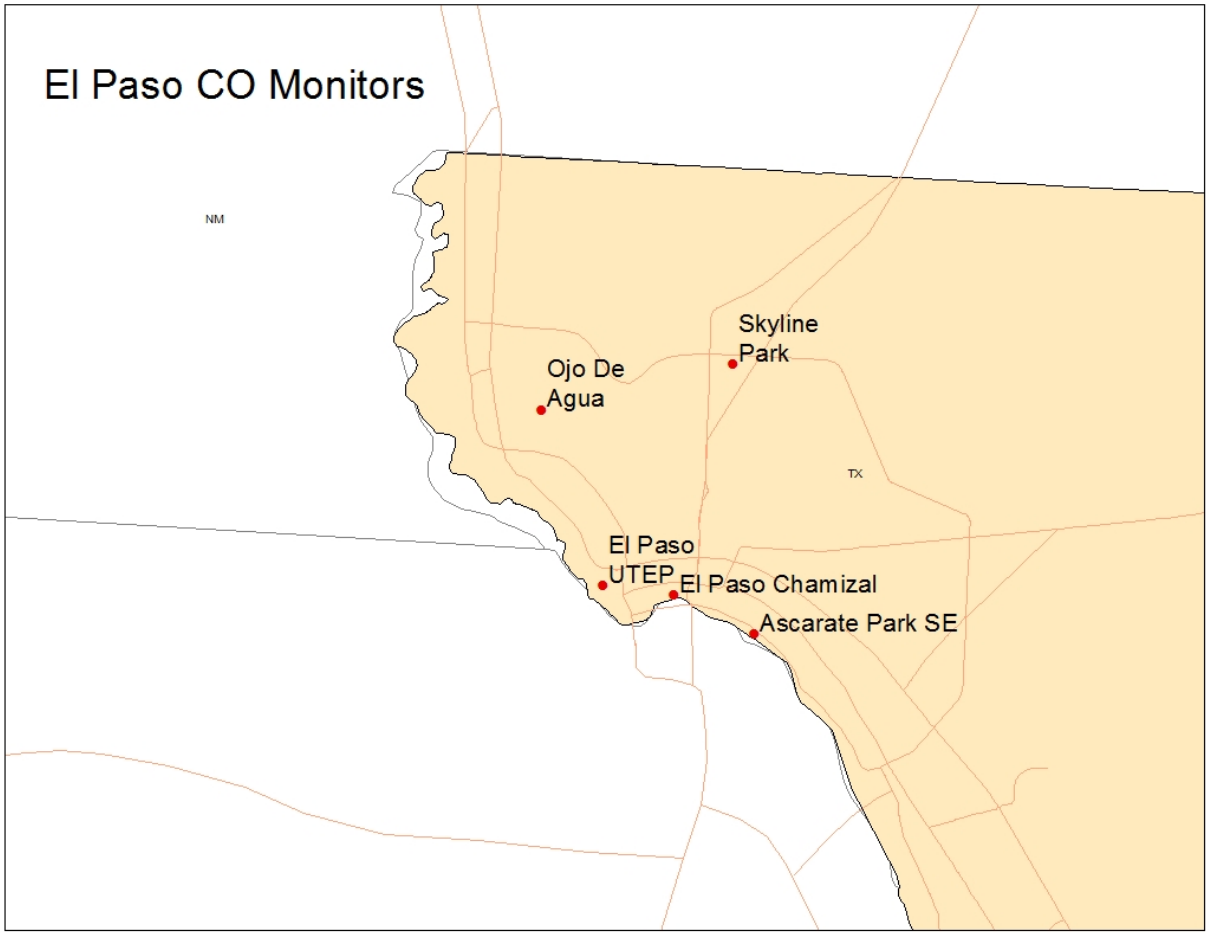

Figure 5-1: El Paso County CO Monitor Locations

5.1 DESIGN VALUES

An LMP must demonstrate maintenance by showing that the maintenance area design value has not exceeded 85% of the relevant National Ambient Air Quality Standard (NAAQS) (at or below 7.65 parts per million [ppm]). The maintenance area design value is the highest design value of all monitors within the maintenance area (see Appendix A: *Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas*). The design value for a monitoring site is the highest of the second highest readings for that monitor for the two most recent years of data. For this plan, the two most recent years of data are 2013 and 2014. Based on these two years of data, the Ascarate Park Southeast C37 sets the maintenance area's design value, with a 2013 through 2014 design value of 2.6 ppm, which is further supported by the 2014 through 2015 design value of 2.8 ppm. Table 5-1: *El Paso County Eight-Hour CO Design Values for 2013 through 2015*, shows the site identification number, the site name and location, and the design values for all 2013 through 2015 regulatory CO monitor sites in El Paso[9].

Table 5-1: El Paso County Eight-Hour CO Design Values by Monitor for 2013 through 2015

Site ID	Site Name	Site Location	Eight-Hour Design Value 2013-2014 (highest of the 2nd highs) (ppm)	Eight-Hour Design Value 2014-2015 (highest of the 2nd highs) (ppm)
481410037	El Paso UTEP C12[9]	250 Rim Rd	1.2	–
481410044	El Paso Chamizal C41*	800 S. San Marcial Street	2.4	2.4
481410055	Ascarate Park Southeast C37*	650 R E Thomason Loop	2.6	2.8
481410058	Skyline Park C72[9]	5050 A. Yvette	0.8	–
481411021	Ojo De Agua C1021	6767 Ojo De Agua	0.7	0.7
		Design Value for County	2.6	2.8

* El Paso Chamizal and Ascarate Park Southeast are the only monitors within the CO maintenance area.

Table 5-2: *El Paso County Eight-Hour CO Design Values for 2013 through 2015*, shows the comparison between El Paso's design value and the eight-hour primary CO NAAQS. The El Paso maintenance area is monitoring attainment of the eight-hour primary CO NAAQS and is meeting the LMP requirement with a design value less than 7.65 ppm.

Table 5-2: El Paso County Eight-Hour CO Design Values for 2013 through 2015

Year	Eight-Hour Design Value (ppm)	NAAQS (ppm)	% of the Standard
2013-2014	2.6	9.0	29%
2014-2015	2.8	9.0	31%

The graph in Figure 5-2: *El Paso County Eight-Hour CO Design Values (2006 through 2015)*, shows the El Paso County CO design value trends for the years 2006 through 2015.

[9] As of January 1, 2015, the CO monitors at El Paso UTEP (C12) and Skyline Park (C72) were federally decommissioned.

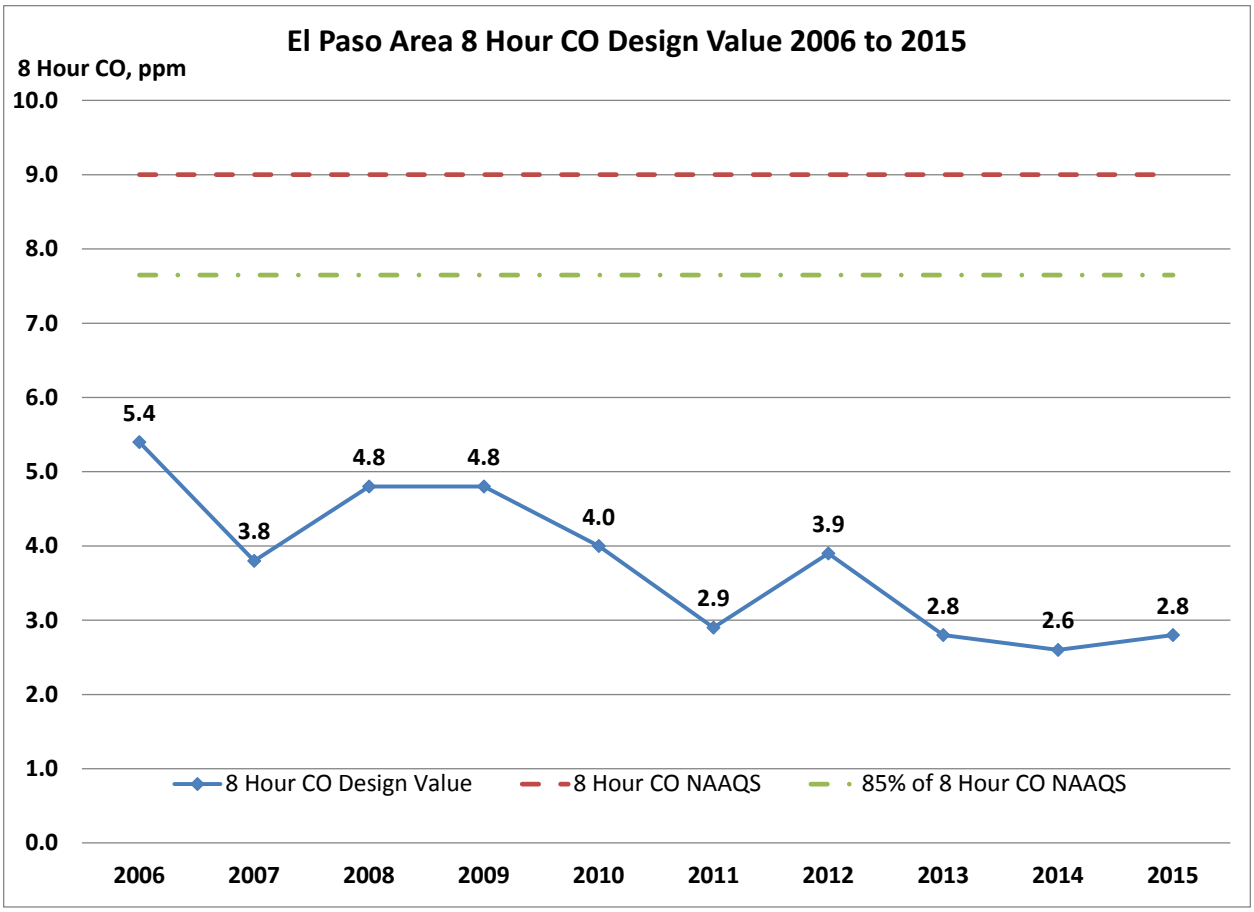

Figure 5-2: El Paso County Eight-Hour CO Design Value (2006 through 2015)

The eight-hour primary CO NAAQS is 9.0 ppm. Design values of 9.499 ppm and less get rounded down to 9.0, whereas 9.5 through 9.999 get rounded up to 10. The method for calculating the design value to demonstrate maintenance in this LMP is outlined in the 1990 EPA memo, *Ozone and Carbon Monoxide Design Value Calculations*[10].

[10]Memorandum from William G. Laxton, Director, Technical Support Division (MD-14), June 18, 1990, *Ozone and Carbon monoxide Design Value Calculations*. http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/ELP2007/laxton_memo.pdf

CHAPTER 6: LIMITED MAINTENANCE DEMONSTRATION

6.1 GENERAL

The limited maintenance plan (LMP) demonstrates that El Paso continues to attain the carbon monoxide (CO) standard and will remain in attainment of the standard during the second maintenance period from 2018 through 2028. The United States Environmental Protection Agency (EPA) published approval of Texas' redesignation request, maintenance plan, and associated motor vehicle emissions budget (MVEB) on August 4, 2008 with an effective date of October 3, 2008. This submittal addresses the Federal Clean Air Act (FCAA), Section 175A(b) requirement for the submission of a second maintenance plan eight years after redesignation that covers the second 10 years of the maintenance planning period. El Paso CO maintenance area monitoring data show that CO levels meet the LMP requirements.

6.2 EMISSIONS INVENTORY AND VERIFICATION OF ATTAINMENT

The year 2014 was selected as the attainment year for this El Paso LMP demonstration. Table 6-1: *El Paso County 2014 CO Winter Weekday Emissions Inventory Summary* depicts El Paso County winter weekday emissions in 2014, by source type, in tons per day (tpd).

Table 6-1: El Paso County 2014 CO Winter Weekday Emissions Inventory Summary

Point (tpd)	Area (tpd)	Non-Road Mobile (tpd)	On-Road Mobile (tpd)	Totals (tpd)
5.12	8.76	33.02	112.26	159.16

This LMP demonstrates continued attainment of the CO standard for El Paso County in 2014 with an emissions inventory that shows added emissions reductions during the maintenance period that were achieved even with growth in vehicle miles traveled (VMT), economic activity, and population.

6.2.1 Projected Emissions Inventories

According to the EPA guidance, *Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas*, an LMP does not require projected emissions to demonstrate maintenance (see Appendix A: *Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas)*. Rather, the requirement to demonstrate maintenance for the second 10-year period from 2018 through 2028 is considered to be satisfied if the monitoring data show that the El Paso area is meeting the air quality criteria of the LMP (a design value of less than 7.65 parts per million (ppm) or 85% of the CO National Ambient Air Quality Standard (NAAQS)). Based on the guidance, there is no requirement to project emissions over the 2018 through 2028 maintenance period because El Paso monitoring data satisfy the air quality criteria of the LMP by beginning the maintenance period at or below 85% of the CO NAAQS.

6.2.2 Point Sources

The Texas Commission on Environmental Quality (TCEQ) extracted the 2014 point source inventory data from the State of Texas Air Reporting System (STARS) database on October 27, 2015. The extracted data included reported annual emissions of CO for each source in the El Paso area for which a 2014 emissions inventory (EI) was submitted and reflected revisions made on or before the extract date. The point source 2014 El Paso CO winter weekday emissions estimates were developed at the unit-level by using the annual CO emissions multiplied by the reported winter seasonal operating percentage to obtain winter season emissions. Due to the continuous operating nature of industrial sources, winter season emissions were divided by 90 days to obtain a daily winter weekday average.

Data submitted in the point source EI are reviewed for quality-assurance purposes and stored in the STARS database. Point source EI guidance documents and historical point source emissions of criteria pollutants are available on the TCEQ's Point Source Emissions Inventory Web page (https://www.tceq.texas.gov/airquality/point-source-ei/psei.html). Unit-level 2014 CO emissions data are summarized and provided in Appendix B: *2014 El Paso CO Winter Weekday Emissions*. Further information is available upon request from the TCEQ's Air Quality Division.

6.2.3 Area Sources

The 2014 area source CO winter weekday emissions inventory was developed per FCAA, Section 187(a)(5). The area source 2014 El Paso CO winter weekday emissions estimates were developed by applying a seasonal adjustment factor to the annual emissions. The annual CO EI was developed using a combination of methodologies and data: EPA-generated EIs; TCEQ-contracted projects; and categories grown from the 2011 EI using factors derived from study data compiled by Eastern Research Group (ERG), the Economy and Consumer Credit Analytics website (http://www.economy.com/default.asp), and the United States Energy Information Administration's (EIA) annual energy outlook publication. The documentation for the development of the ERG growth factors can be found in Appendix C: *Projection Factors for Point and Area Sources*.

The EPA developed EIs for states to use for many source categories as part of the National Emissions Inventory (NEI). The states access these individual inventories through the EPA's NEI website (ftp://ftp.epa.gov/EmisInventory/2014nei/doc/). These source categories include but are not limited to: industrial coatings; degreasing; residential, commercial/institutional, and industrial fuel use; commercial cooking; aviation fuel use; and consumer products. For some source categories, the TCEQ developed state-specific emissions estimates by acquiring current state-specific activity data and applying appropriate emissions factors. These source categories include but are not limited to: structure fires; dry cleaners; and automobile fires.

For those area source categories affected by TCEQ rules, rule effectiveness factors were applied to the baseline or uncontrolled emissions to estimate controlled emissions. These factors address the efficiency of the controls and the percentage of the category's population affected by the rule. Quality assurance of area source inventory data involves ensuring that the activity data used for each separate category is current and valid. Data such as current population figures, fuel usage, and material usage were updated as new information became available. When appropriate, AP-42 emissions factors consistent with EPA guidance were used. Other routine efforts such as checking calculations for errors and conducting reasonableness and completeness checks were implemented. The area source classification-level 2014 CO emissions data are summarized and provided in Appendix B. Further information is available upon request from the TCEQ's Air Quality Division.

6.2.4 Non-Road Mobile Sources

A Texas-specific version of the EPA's latest NONROAD 2008a model, called the Texas NONROAD (TexN) model, was used to calculate emissions for all non-road mobile source equipment and recreational vehicles, with the exception of airports, locomotives, and drilling rigs. Several equipment survey studies have been conducted that focused on various equipment categories operating in different areas in Texas. The resulting survey data are used as inputs to the TexN model to more accurately estimate non-road emissions for the State of Texas. The 2014 EI development used the meteorological data, and fuel data collected for the calendar year 2014. The 2014 CO winter weekday non-road model inventories were based on activity estimates and model inputs such as fuel use data for the typical winter weekday. El Paso winter weekday

emissions at non-road equipment-level can be found in Appendix B. The complete set of input and output files are available from the TCEQ Air Quality Division upon request

The 2014 airport emission sources include aircraft engines, auxiliary power units, and ground support equipment. The United States Federal Aviation Administration's Emissions and Dispersion Modeling System, Version 5.1.3 (EDMS) was used to calculate airport source emissions. A survey was conducted by ERG under contract with the TCEQ to collect updated information on aircraft activity, fleet mix, and EDMS model input parameters. To estimate the 2014 CO average tons per day emissions from airport sources, the annual CO emissions were divided by 365, because of the relative consistent seasonal operations throughout the year. Documentation of methods and procedures used in developing 2014 airport EI can be found in Appendix D: *Aircraft Emissions Inventory for Texas Statewide 2014 Air Emissions Reporting Requirements (AERR) Inventory and 2008 to 2040 Trend Analysis Years.*

The 2014 Texas locomotive EI includes Class I, II, and III locomotive activity and emissions by rail segment for all counties within Texas. Locomotive line-haul and yard activity data were compiled from companies operating in Texas to create a county-level Class I line-haul inventory. Data developed by Eastern Regional Technical Advisory Committee in collaboration with the Federal Railroad Administration, the American Short Line and Regional Railroad Association (ASLRRA), and members of the Class II and III railroad communities used 2008 activity and emissions profiles for Class II and Class III railroads. To calculate annual gallons of fuel used by railroads, data compiled by ASLRRA from the Class II and III railroads, including total industry fuel use in 2008 for locomotives and total Class II/III route miles, were used. Based on the EIA's latest annual energy outlook publication, 2008 fuel usage values were grown to estimate 2014 emissions. The annual CO emissions were divided by 365, because of the relative consistent seasonal operations throughout the year. Documentation of methods and procedures used in developing the locomotive EIs can be found in Appendix E: *2014 Texas Statewide Locomotive Emissions Inventory and 2008 through 2040 Trend Inventories.*

While the TCEQ estimates drilling rig diesel engine emissions for the entire state, there was no oil or gas drilling activity in El Paso County during 2014, and therefore, there are no drilling rig emissions represented in the 2014 El Paso CO winter weekday emissions inventory.

6.2.5 On-Road Mobile Sources

As stated in Section 2.5: *On-Road Mobile Sources*, vehicles which travel on public roadways are sources of evaporative and combustion related exhaust emissions. To calculate emissions, both the rate of emissions per unit of activity (emissions factors) and the number of units of activity must be determined. The emissions factors for on-road mobile sources are determined using models developed and approved by the EPA. The models allow for input of local conditions and vehicle characteristics. The activity information corresponding to the emissions factors is obtained using local travel demand models (TDM), the output from the highway performance monitoring system, and speed models.

In March 2010, the EPA released the Motor Vehicle Emissions Simulator (MOVES) model as the official emissions factor model for developing on-road mobile source category EIs. Although MOVES represented a new approach to assessing on-road emissions, the sources are the same, and the opportunity to use local inputs for meteorological conditions, control programs, and fleet characteristics remains. The on-road mobile source category EIs for this El Paso LMP State Implementation Plan (SIP) revision were developed using the latest version of the MOVES model that is available, MOVES2014. The EPA made MOVES2014 available on July 31, 2014; officially released the MOVES2014 version of the model as a replacement to MOVES2010b for

SIP applications on October 7, 2014 (70 *Federal Register* [FR] 60343); and released an update to the model on October 27, 2014.

To estimate on-road mobile emissions, the MOVES model was run in emission-rates mode. When using MOVES in the emissions rate mode the emission rates are produced for subsets of the on-road fleet, and the emission rates are multiplied by the activity level of each vehicle type or source-use type to calculate emissions. On-road mobile source emissions factors are expressed in units of grams per mile, grams per vehicles (evaporative), and grams per hour (extended idle mode); therefore, the activity data required to complete the inventory calculation are VMT in units of miles per day, vehicle populations, and source hours idling. The level of vehicle travel activity is developed using a TDM run by the Texas Department of Transportation or by the local metropolitan planning organization. The TDMs are validated against a large number of ground counts, i.e., traffic passing over counters placed in various locations throughout a county or area. For SIP and reporting inventories, VMT estimates are calibrated against outputs from the Federal Highway Performance Monitoring System, a model built from a different set of traffic counters. Vehicle populations by source type are derived from the Texas Department of Motor Vehicle registration database and, as needed, national estimates for vehicle source type population.

In addition to the number of miles traveled on each roadway link, the speed on each roadway type or segment is also needed to complete an on-road EI. Roadway speeds, required inputs for the MOVES model, are calculated by using the activity volumes from the TDM and a post-processor speed model.

The 2014 CO on-road mobile source EIs for this El Paso LMP SIP revision were developed under contract by the Texas Transportation Institute (TTI). The inventories include El Paso County and the sub-region of El Paso County designated as nonattainment (the CO maintenance area) for the eight-hour primary CO National Ambient Air Quality Standard (NAAQS). Consistent with on-road inventory development procedures for CO season reporting requirements and SIP development, the CO winter weekday on-road inventories for 2014 are based on VMT estimates and emission rates for an average winter weekday. The planning assumptions, fleet characteristics, and VMT estimates were updated to incorporate the latest available information at the time the inventories are developed. The El Paso CO maintenance area is restricted to a narrow strip of the City of El Paso along the Rio Grande, in El Paso County. The VMT and CO emission values for the maintenance area are significantly less than the VMT and CO emission values for El Paso County. A summary of the VMT and emissions are presented in Tables 6-2: *El Paso County and CO Maintenance Area 2014 VMT Summary, miles per winter weekday, and* 6-3: *El Paso County and CO Maintenance Area 2014 On-Road Emissions Inventory Summary, tons per winter weekday*. The two TTI reports documenting the details of the inventory development and results are provided in Appendix F: *2014 On-Road Mobile Source Annual, Summer Weekday and Winter Workday Emissions Inventories: El Paso Area*, and Appendix G: *Development of 2014 On-Road Mobile Source Winter Weekday CO Emissions for the El Paso CO Zone*[11]. The complete set of input and output files are available from the TCEQ Air Quality Division upon request.

[11] The "CO Zone" is the CO maintenance area.

Table 6-2: El Paso County and CO Maintenance Area 2014 VMT Summary, miles per winter weekday

Year	El Paso County	El Paso County CO Maintenance Area
2014	16,453,958	1,370,483

Table 6-3: El Paso County and CO Maintenance Area 2014 On-Road Emissions Inventory Summary, tons per winter weekday

Year	El Paso County	El Paso CO Maintenance Area
2014	112.26	8.62

6.3 CONFORMITY UNDER A LIMITED MAINTENANCE PLAN

A metropolitan planning organization (MPO) in a nonattainment or maintenance area for CO must satisfy transportation conformity requirements under 40 Code of Federal Regulations (CFR) Part 93, Subpart A. These requirements include development by the MPO of regional on-road emissions projections for comparison with an adequate/approved MVEB established in an applicable state implementation plan revision. Projected regional on-road emissions, which include emissions from planned transportation projects, must not exceed the MVEB for the maintenance area to successfully demonstrate transportation conformity. However, an LMP is not required to contain an MVEB, and a maintenance-area MPO with an approved LMP is not required to perform a regional emissions analysis for comparison to an MVEB to satisfy transportation conformity requirements.

Title 40 CFR §93.109(e) stipulates that regional emissions analysis and associated emissions test requirements, budget tests (40 CFR §93.118) and interim emissions tests (40 CFR §93.119), no longer apply for areas with approved LMPs; i.e., those that successfully demonstrate that motor vehicle emissions growth is unlikely to be significant enough to violate the applicable NAAQS. Transportation conformity demonstrations are still required for transportation plans, programs, and projects in areas with approved LMPs. Although no longer required to demonstrate conformity to an MVEB, maintenance-area MPOs with approved CO LMPs must still demonstrate appropriate consultation, timely implementation of transportation control measures, and compliance with CO hot-spot requirements to satisfy transportation conformity.

6.4 CONTROL STRATEGIES

This plan relies on federal emission standards as well as two TCEQ-established strategies, the El Paso Oxygenated Fuel Program and the Vehicle Emissions Inspection and Maintenance (I/M) Program, to control CO emissions from on-road mobile sources.

6.4.1 Federal Emission Standards

On April 28, 2014, the EPA published the final rule for the new Tier 3 Motor Vehicle Emission and Fuel Standards (79 FR 23414). Tier 3 emission standards will apply to new, light-duty motor vehicles, light-duty trucks, and medium-duty passenger vehicles beginning model year 2017 and will be fully phased in by model year 2025. Tier 3 emission standards will also apply to chassis-certified Class 2b and Class 3 heavy-duty vehicles beginning model year 2018 and will be fully phased in by model year 2022. The Tier 3 emission standards also extend the regulatory useful life period during which the standards apply from 120,000 miles to 150,000 miles.

When fully implemented, the Tier 3 exhaust emission standards for light-duty vehicles will provide an approximately 80% reduction in non-methane organic gases (NMOG) and nitrogen oxides (NO_X) (NMOG+NO_X) standards and a 70% reduction in per-vehicle particulate matter (PM) standards when compared to the current fleet average. The CO Tier 3 Bin 70 and Bin 50 exhaust emission standards are approximately 19% cleaner than the Tier 2 Bin 4 through Bin 1 standards, and the Tier 3 Bin 30 and Bin 20 standards are approximately 53% cleaner. The Tier 3 exhaust standards for heavy-duty vehicles provide about a 60% reduction in both fleet average NMOG+NO_X standards and per-vehicle PM standards when compared to the current standards.

Nationwide, the implementation of the Tier 3 emission standards is projected to reduce CO emissions by 2% in 2018 and by 24% in 2030 as new vehicles replace the existing fleet[12]. These CO emission reductions are expected to continue beyond 2030 as the existing fleet continues to be replaced with Tier 3 vehicles. Tier 3 fuel standards will limit gasoline sulfur to no more than 10 ppm of sulfur on an annual average basis beginning January 1, 2017, a reduction of approximately 66% when compared to the current standard. The current gasoline sulfur standards specifying an 80 ppm refinery gate cap and 95 ppm downstream cap are maintained under the new Tier 3 fuel standards. Removing sulfur from gasoline allows a vehicle's catalyst to work more efficiently. The Tier 3 gasoline sulfur standard will make emission control systems more effective for both existing and new vehicles and will enable automobile manufacturers to meet the more stringent Tier 3 vehicle emissions standards.

6.4.2 Oxygenated Fuel Program

The El Paso Oxygenated Fuel Program is designed to reduce CO emissions from the cold starts of motor vehicles during winter months. Oxygenated fuel is conventional gasoline "splash blended" with an oxygenate such as methanol, ethanol, methyl tertiary butyl ether, ethyl tertiary butyl ether, or tertiary amyl methyl ether to achieve a minimum oxygen content of 2.7% oxygen by weight. Currently, ethanol is the primary oxygenate being used in El Paso's program.

The El Paso Oxygenated Fuel Program, which began on October 1, 1992, requires that all gasoline in the El Paso area have a minimum oxygen content of 2.7% oxygen by weight from October 1 to March 31 of each year. The wintertime oxygenated fuel used in El Paso may have a maximum Reid vapor pressure as high as 13.5 pounds per square inch. All gasoline storage, refining, and blending facilities; gasoline terminal and bulk plants; and gasoline transporters affected by this section are required to register with the TCEQ and the El Paso City-County Health and Environmental District. The owner or operator of each affected facility must provide information to the commission and must update this information, as necessary, by September 1 of each year. General information about the El Paso Oxygenated Fuel Program may be found on the TCEQ's Motor Vehicle Fuel Programs in Texas Web page (https://www.tceq.texas.gov/airquality/mobilesource/vetech/fuelprograms.html/#oxyrvp1), and the oxygenated fuel rules may be found in 30 TAC Chapter 114, Subchapter D, Oxygen Requirements for Gasoline (http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=114&sch=D&rl=Y).

[12] Projections taken from the EPA's *Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards Final Rule, Regulatory Impact Analysis, March 2014.* http://www3.epa.gov/otaq/documents/tier3/420r14005.pdf

6.4.3 Vehicle Inspection and Maintenance (I/M) Program

All gasoline-powered vehicles from two to 24 years old that are registered and primarily operated in El Paso County are required to undergo an annual emissions test in conjunction with the annual safety inspection. The emissions tests are conducted at safety inspection stations licensed by the Texas Department of Public Safety. The vehicle emissions I/M program in El Paso began two-speed idle (TSI) testing on January 1, 1987. The program has been effective at reducing CO emissions. On January 1, 2007, an enhanced vehicle I/M program began On-Board Diagnostics testing for all model year 1996 and newer vehicles and continued to use TSI testing for all model year 1995 and older vehicles. All vehicle emissions inspection stations in the El Paso I/M program area are required to offer both tests. The I/M rules may be found in 30 TAC Chapter 114, Subchapter C, Division 1, Vehicle Inspection and Maintenance (http://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=5&ti=30&pt=1&ch=114&sch=C&div=1&rl=Y).

CHAPTER 7: CONTINGENCY PLAN

7.1 GENERAL

The October 6, 1995, United States Environmental Protection Agency (EPA) memorandum for Limited Maintenance Plans states that Section 175A of the Federal Clean Air Act requires that maintenance plans include contingency provisions. The purpose of the contingency plan is to identify the measures to be promptly adopted, if necessary upon violation of the Nation Ambient Air Quality Standard (NAAQS), and provide a schedule and procedure for implementation of these measures.

If valid regulatory air quality monitoring data indicate that the carbon monoxide (CO) NAAQS was violated (that is, more than one reading at the same monitor in one calendar year at or above 9 parts per million), the Texas Commission on Environmental Quality (TCEQ) will first analyze available data regarding the air quality, meteorology, international transport and related activities in the area to determine the cause of the violation. If this analysis determines that the violation was caused by actions than cannot be controlled by regulatory actions within the jurisdiction of the TCEQ, such as emissions from Mexico, the TCEQ will notify the EPA of the findings and request EPA actions to promptly address the CO violation. If, after this analysis is complete, it is determined that the violation was caused by actions that can be controlled by regulatory actions, the TCEQ will develop measures that will reduce the CO levels to the extent necessary to comply with the NAAQS.

7.2 CONTINGENCY MEASURES

The potential implementation of contingency measures would not be expected to take place until well in the future, so the identification of specific detailed measures is not practical at this time. The TCEQ is committed to selecting the most appropriate contingency measures that can be timely implemented based on technological, societal, economic, and political factors that are impossible to predict.

Some of the measures that may be pursued include:

- vehicle idling restrictions to limit the amount of time vehicles are allowed to idle, thereby reducing the amount of CO produced during extended idling operations; and/or
- improvements to the Vehicle Inspection and Maintenance Program to limit CO emissions through the use of future mobile source testing technology.

These measures, or other strategies that will reduce CO levels to bring the area into compliance with the NAAQS, will be proposed and implemented within 18 months of the commission publishing notification in the *Texas Register* of its determination that contingency measure action is necessary.

ORDER ADOPTING
REVISION TO THE STATE IMPLEMENTATION PLAN

Docket No. 2015-1654-SIP
Project No. 2015-015-SIP-NR

On September 7, 2016, the Texas Commission on Environmental Quality (Commission), during a public meeting, considered adoption of the El Paso Limited Maintenance Plan (LMP) for the Eight-hour Primary Carbon Monoxide (CO) Standard. The Commission adopts this revision to the state implementation plan (SIP). The adopted SIP revision satisfies FCAA, §175A(b), which requires the state to submit a second ten year maintenance plan for the portion of El Paso that was redesignated to attainment of the Eight-hour Primary CO National Ambient Air Quality Standard (NAAQS) on October 3, 2008. The SIP revision demonstrates through design value and emission inventory trends that the El Paso maintenance area will continue to maintain the CO Eight-Hour Primary NAAQS for the second ten years of the maintenance planning period (October 2018 through October 2028). Under Tex. Health & Safety Code Ann. §§ 382.011, 382.012, and 382.023 (West 2010), the Commission has the authority to control the quality of the state's air and to issue orders consistent with the policies and purposes of the Texas Clean Air Act, Chapter 382 of the Tex. Health & Safety Code. Notice of the proposed SIP revision was published for comment in the March 25, 2016, issue of the *Texas Register* (41 TexReg 2344).

Pursuant to 40 Code of Federal Regulations § 51.102 and after proper notice, the Commission conducted a public hearing to consider the revision to the SIP. Proper notice included prominent advertisement in the areas affected at least 30 days prior to the date of the hearing. A public hearing was held in El Paso on April 13, 2016.

The Commission circulated hearing notices of its intended action to the public, including interested persons, the Regional Administrator of the EPA, and all applicable local air pollution control agencies. The public was invited to submit data, views, and recommendations on the proposed SIP revision, either orally or in writing, at the hearing or during the comment period. Prior to the scheduled hearing, copies of the proposed SIP revision were available for public inspection at the Commission's central office and on the Commission's website.

No comments were received regarding the SIP revision.

IT IS THEREFORE ORDERED BY THE COMMISSION that revision to the SIP incorporated by reference to this Order is hereby adopted. The adopted revision to the SIP is incorporated by reference in this Order as if set forth at length verbatim in this Order.

IT IS FURTHER ORDERED BY THE COMMISSION that on behalf of the Commission, the Chairman should transmit a copy of this Order, together with the adopted revision to the SIP, to the Regional Administrator of EPA as a proposed revision to the Texas SIP pursuant to the Federal Clean Air Act, codified at 42 U.S. Code Ann. §§ 7401 - 7671q, as amended.

If any portion of this Order is for any reason held to be invalid by a court of competent jurisdiction, the invalidity of any portion shall not affect the validity of the remaining portions.

DRAFT

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

_____
Bryan W. Shaw, Ph.D., P.E., Chairman

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Date Signed

DRAFT