

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**AGENDA ITEM REQUEST**

for State Implementation Plan Revision Adoption

**AGENDA REQUESTED:** February 10, 2010

**DATE OF REQUEST:** January 22, 2010

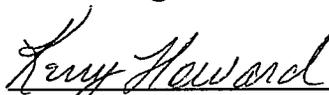
**NAME & NUMBER OF PERSON TO CONTACT REGARDING CHANGES TO THIS REQUEST, IF NEEDED:** Kerry Howard, 239-0556

**CAPTION:** Docket No. 2009-0744-SIP. Consideration for the adoption of a revision to the state implementation plan (SIP) concerning repeal of the Texas portable fuel container (PFC) rule.

This adoption of the Texas PFC Rule Repeal SIP Revision (Texas PFC Rule Repeal SIP) will remove Texas PFC regulations from the control strategy for the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution for all affected 1997 eight-hour ozone standard nonattainment and near nonattainment areas in Texas. This adoption to the SIP revision will incorporate rulemaking repealing state PFC rules and demonstrate that federal PFC standards promulgated in 2007 provide replacement emission reductions. Because those emission reductions are estimated to be equal to or greater than those derived from the state regulations, the repeal of the Texas PFC rule will not negatively impact the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution. (Lisa Shuvalov, Chrissie Angeletti) (Project No. 2009-024-SIP-NR)

  
Chief Engineer for *Susana M. Hillebrand*

  
Division Director

  
Agenda Coordinator

Copy to CCC Secretary? NO X YES

# Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

**To:** Commissioners **Date:** January 22, 2010  
**Thru:** LaDonna Castañuela, Chief Clerk  
Mark R. Vickery, P.G., Executive Director  
**From:** *pl* Susana M. Hildebrand, P.E., Chief Engineer  
*pl* Chief Engineer's Office

**Docket No.:** 2009-0744-SIP

**Subject:** Commission Approval of a Revision to the State Implementation Plan (SIP) for the Control of Ozone Air Pollution for All Affected 1997 Eight-Hour Ozone Standard Nonattainment and Near Nonattainment Areas in the State of Texas

Project No. 2009-024-SIP-NR - State of Texas Portable Fuel Container (PFC) Rule Repeal SIP Revision for the 1997 Eight-Hour Ozone Standard

## Background and reason(s) for the SIP revision:

On February 26, 2007, the United States Environmental Protection Agency (EPA) adopted federal regulations that limit the evaporative hydrocarbon emissions from gasoline, diesel, and kerosene PFCs to 0.3 grams per gallon per day (72 *Federal Register* 8432). All PFCs manufactured on or after January 1, 2009, are required to comply with the federal standards. The current Texas PFC regulations are inconsistent with the federal standards, because the Texas PFC regulations were based on PFC testing methods adopted by the California Air Resources Board (CARB) in 2001. The adopted statewide SIP revision will remove the state's PFC rule as an ozone control strategy from the SIP.

The Texas PFC program, which became effective January 1, 2006, was included in the 2004 Rate of Progress SIP revision for the Houston-Galveston-Brazoria area, the Five Percent Increment of Progress SIP revision for the Dallas-Fort Worth area, the 2006 Victoria SIP revision, the 2004 Early Action Compact (EAC) SIP revision for the Austin area, the 2005 Beaumont-Port Arthur Attainment Demonstration SIP revision, the 2008 Austin-Round Rock Eight-Hour Ozone Flex Memorandum of Agreement Plan, the 2004 San Antonio EAC SIP revision, and the 2004 Northeast Texas EAC SIP revision.

The adopted statewide SIP revision will demonstrate that the repeal of the current Texas PFC regulations and reliance on the new federal PFC standards will have no negative impact on the SIP. The estimated emission reductions applicable to the implementation of the federal PFC rule in Texas are expected to be equivalent to the current Texas PFC rule in the early years and to provide greater reductions in the later years. Therefore, the adopted repeal of the state PFC rule will not have a negative impact on the emission reductions claimed in the Texas SIP.

The EPA, Region 6, indicated a PFC rule repeal and SIP revision will not be construed as a SIP relaxation. Emission reductions from the federal PFC rule are expected to ultimately exceed those

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from the state PFC rule, because every fuel container sold or brought into the state from elsewhere will be required to meet the federal PFC standards.

**Scope of the SIP revision:**

**A) Summary of what the SIP revision will do:** The SIP revision will reflect the adoption of the PFC rule repeal.

**B) Scope required by federal regulations or state statutes:** None.

**C) Additional staff recommendations that are not required by federal rule or state statute:** Revise the Texas SIP to reflect the PFC rule repeal.

**Statutory authority:**

The SIP revision will be adopted under Texas Health and Safety Code (THSC), §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; §382.012, concerning State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; §382.014, concerning Emission Inventory; §382.016, concerning Monitoring Requirements; House Bill 2481, §2, codified in THSC, §382.0173, concerning Adoption of Rules Regarding Certain SIP Requirements and Standards of Performance for Certain Sources; §382.054, concerning Federal Operating Permit; and Federal Clean Air Act (FCAA), 42 United States Code (USC), §§7401 *et seq.*, which requires states to submit plans establishing standards of performance for existing sources of pollutants for which National Ambient Air Quality Standards have not been established, and providing for the implementation and enforcement of such standards of performance.

The adopted repeal of these sections will implement THSC, §§382.002, 382.011, 382.012, 382.014, 382.016, 382.0173, 382.054, and FCAA, 42 USC, §§7401 *et seq.*

**Effect on the:**

**A) Regulated community:** The adopted SIP revision will have no impact on the regulated community.

**B) Public:** The adopted SIP revision will have no impact on the public.

**C) Agency programs:** The adopted SIP revision will have no impact on agency programs. The estimated emission reductions applicable to the implementation of the federal PFC rule in Texas are expected to be equivalent to the current Texas PFC rule in the early years and to provide greater reductions in the later years.

**Stakeholder meetings:**

No stakeholder meetings were held.

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**Public comment:**

TCEQ staff were present at the following time and location to conduct a public hearing on the proposed SIP revision and rule package. No member of the public wished to present comments, so staff did not open the public hearing.

CITY	DATE	TIME	LOCATION
Austin	October 6, 2009	2:00 p.m.	Texas Commission on Environmental Quality 12100 North I-35 Building E, Room 201

The comment period opened on September 11, 2009, and closed on October 12, 2009. No written comments were received during the comment period.

**Significant changes from proposal:**

There were no changes from the proposal.

**Potential controversial concerns and legislative interest remaining after proposal and public comment:**

None.

**Does this SIP revision affect any current policies or require development of new policies?**

No.

**What are the consequences if this SIP revision does not go forward? Are there alternatives to the SIP revision?**

The ozone control strategy used in the SIP for limiting volatile organic compound (VOC) emissions from PFCs will be less stringent than the federal rule.

- Alternatives: Do not repeal the PFC rule and not revise the SIP. However, manufacturers would be subject to both the Texas PFC rule and the federal rule, which could result in confusion for manufacturers.

**Key points in adoption SIP revision schedule:**

*Texas Register* proposal publication date: N/A

Anticipated *Texas Register* publication date: N/A

Anticipated effective date: N/A

Six-month *Texas Register* filing deadline: N/A

**Agency contacts:**

Lisa Shuvalov, Rule Project Manager, 239-4484, Air Quality Division

Chrissie Angeletti, Staff Attorney, 239-1204

Michael Parrish, Texas Register Coordinator, 239-2548

Attachments: None.

Commissioners  
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cc: Chief Clerk, 5 copies  
Executive Director's Office  
Susana M. Hildebrand, P.E.  
Kevin Patteson  
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Office of General Counsel  
Lisa Shuvalov  
Chrissie Angeletti

STATE OF TEXAS AIR QUALITY IMPLEMENTATION PLAN  
FOR THE CONTROL OF OZONE AIR POLLUTION

FOR ALL AFFECTED 1997 EIGHT-HOUR OZONE STANDARD NONATTAINMENT AND  
NEAR NONATTAINMENT AREAS IN THE STATE OF TEXAS



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

**TEXAS PORTABLE FUEL CONTAINER  
STATE IMPLEMENTATION PLAN REVISION**

PROJECT NO. 2009-024-SIP-NR

Adoption February 10, 2010

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## EXECUTIVE SUMMARY

On February 26, 2007, the United States Environmental Protection Agency (EPA) adopted a federal portable fuel container (PFC) rule (72 *Federal Register* 8432) that set new national standards for gasoline, diesel, and kerosene portable fuel containers. All PFCs manufactured on or after January 1, 2009, must comply with the 2007 federal standards. The current Texas PFC regulations are not consistent with the new federal standards, as they are based on older PFC testing methods that were adopted by California in 2001. The adoption of rulemaking that repeals the Texas PFC rule accompanies the adoption of the Texas PFC Rule Repeal State Implementation Plan (SIP) revision. This adoption of this SIP revision incorporates the adopted repeal and demonstrates that replacement standards from reliance on the federal PFC rules will have no negative impact on attainment of the 1997 eight-hour ozone standard in the State of Texas. Because the federal PFC rule provides emissions reductions equivalent to or greater than those from the Texas PFC regulations, repeal of the state rule does not reduce emissions reductions claimed in the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution. Consequently, the adoption of the rule repeal and the adoption of this SIP revision will not have a negative impact on the emissions reductions claimed in the SIP.

This adoption of the Texas PFC SIP revision removes the state PFC rule from the ozone control strategy in the Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution. The Texas PFC rule is cited as part of the ozone control strategy in the following Texas SIP revisions: the Post 1999 Rate-Of-Progress Demonstration Plan For The Houston-Galveston-Brazoria Nonattainment Area (2004), the Five Percent Increment of Progress SIP revision for the Dallas-Fort Worth area (2005), the Eight-Hour Ozone Maintenance Plan For The Victoria County Ozone Attainment Area (2006), the Austin Area Early Action Compact (EAC) Ozone SIP Revision (2004), the Beaumont-Port Arthur Attainment Demonstration SIP revision (2005), the San Antonio Area EAC Ozone SIP Revision (2004), and the Northeast Texas Area EAC Ozone Revision (2004). The PFC rule is also included in the Austin-Round Rock Eight-Hour Ozone Flex Memorandum of Agreement Plan (2008).

After staff discussions with the EPA, it was determined that the repeal of the Texas PFC rule and this revision of the SIP would not result in an anti-backsliding issue. Because every fuel container sold or brought into the state is now required to meet federal PFC standards, the resulting emissions reductions are expected to exceed those derived from the state PFC rule.

## SECTION V: LEGAL AUTHORITY

### A. 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, and 2007. In 1989, the TCAA was codified as Chapter 382 of the Texas Health & Safety Code.

Originally, the TCAA stated that the Texas Air Control Board (TACB) is the state air pollution control agency and is 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. This chapter 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 77<sup>th</sup> Texas Legislature continued the existence of the TNRCC until September 1, 2013, and changed the name of the TNRCC to the Texas Commission on Environmental Quality (TCEQ). In 2009, the 81<sup>st</sup> Texas Legislature, during a special session, amended § 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.

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.

#### B. 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 and SAFETY CODE, Chapter 382

September 1, 2009

TEXAS WATER CODE

September 1, 2009

#### 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)

#### 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 effective dates:

Chapter 7: Memoranda of Understanding, §§ 7.110 and 7.119

May 2, 2002

Chapter 19: Electronic Reporting

March 1, 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, §§ 39.201; 39.401; 39.403(a) and (b)(8)-(10); 39.405(f)(1) and (g); 39.409; 39.411 (a), (b)(1)-(6), and (8)-(10) and (c)(1)-(6) and (d); 39.413(9), (11), (12), and (14); 39.418(a) and (b)(3) and (4); 39.419(a), (b), (d), and (e); 39.420(a), (b) and (c)(3) and (4); 39.423 (a) and (b); 39.601-39.605	March 29, 2006
Chapter 55: Requests for Reconsideration and Contested Case Hearings; Public Comment, §§ 55.1; 55.21(a) - (d), (e)(2), (3), and (12), (f) and (g); 55.101(a), (b), and (c)(6) - (8); 55.103; 55.150; 55.152(a)(1), (2), and (6) and (b); 55.154; 55.156; 55.200; 55.201(a) - (h); 55.203; 55.205; 55.209, and 55.211	March 29, 2006
Chapter 101: General Air Quality Rules	January 1, 2009
Chapter 106: Permits by Rule, Subchapter A	June 30, 2004
Chapter 111: Control of Air Pollution from Visible Emissions and Particulate Matter	July 19, 2006
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	June 26, 2008
Chapter 115: Control of Air Pollution from Volatile Organic Compounds	July 19, 2007
Chapter 116: Permits for New Construction or Modification	May 29, 2008
Chapter 117: Control of Air Pollution by Control of Air Pollution from Nitrogen Compounds	March 4, 2009
Chapter 118: Control of Air Pollution Episodes	March 5, 2000
Chapter 122: § 122.122: Potential to Emit	December 11, 2002
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

## SECTION VI. CONTROL STRATEGY

- A. Introduction (No change)
- B. Ozone (Revised)
  - 1. *Dallas-Fort Worth* (Revised)
  - 2. *Houston-Galveston-Brazoria* (Revised)
  - 3. *Beaumont-Port Arthur* (Revised)
  - 4. *El Paso* (No change)
  - 5. *Regional Strategies* (No change)
  - 6. *Northeast Texas* (Revised)
  - 7. *Austin Area* (Revised)
  - 8. *San Antonio Area* (Revised)
- C. Particulate Matter (No change)
- D. Carbon Monoxide (No change)
- E. Lead (No change)
- F. Oxides of Nitrogen (No change)
- G. Sulfur Dioxide (No change)
- H. Conformity with the National Ambient Air Quality Standards (No change)
- I. Site Specific (No change)
- J. Mobile Sources Strategies (No change)
- K. Clean Air Interstate Rule (No change)
- L. Transport (No change)
- M. Regional Haze (No change)

## LIST OF ACRONYMS

ACT -- Alternative Control Techniques  
AD -- Attainment Demonstration  
AF -- Air-to-Fuel  
APU -- Auxiliary Power Units  
ARPDB -- Acid Rain Program Data Base  
ATCM -- Airborne Toxic Control Measure  
auto-GC -- Automated Gas Chromatograph  
BACT -- Best Available Control Technology  
BCCA-AG -- Business Coalition for Clean Air-Appeal Group  
BMP -- Best Management Practices  
BPA -- Beaumont-Port Arthur  
Btu/hr -- British Thermal Units per Hour  
Btu/scf -- British Thermal Units per Standard Cubic Feet  
CAE -- Cetane Additive Enhanced Diesel Fuel  
CAIR -- Clean Air Interstate Rule  
CAMx -- Comprehensive Air Model with Extensions  
CARB -- California Air Resources Board  
CBD -- Houston's Central Business District  
CFR -- Code of Federal Regulations  
CMAQ -- Congestion Mitigation and Air Quality  
CO -- Carbon Monoxide  
CTG -- Control Technique Guidelines  
DECS -- Diesel Emission Control Strategy  
DERC -- Discrete Emissions Reduction Credits  
DFW -- Dallas-Fort Worth  
DFW AD SIP -- DFW Attainment Demonstration SIP Revision  
DPM -- Diesel Particulate Matter  
DRRP -- Diesel Risk Reduction Program  
DV -- Design Value  
DVc -- Current Design Value  
DVf -- Future Design Value  
EAC -- Early Action Compact  
EDMS -- Emissions and Dispersion Modeling System  
E-GRID-2007 -- Emissions and Generation Resource Integrated Database  
EE/RE -- Energy Efficiency/Renewable Energy  
EGAS -- Economic Growth Analysis System  
EGF -- Electric Generating Facilities  
EGU -- Electric Generating Units  
EI -- Emissions Inventory  
EPA -- United States Environmental Protection Agency  
EPS3 -- Emissions Processing System, Version 3  
ERC -- Emission Reduction Credits  
ERCOT -- Electric Reliability Council of Texas  
ESAD -- Emission Specification for Attainment Demonstration  
ESL -- Energy Systems Laboratory, the Texas A&M University System  
F -- Fahrenheit  
FAA -- Federal Aviation Administration  
FCAA -- Federal Clean Air Act

FCV -- Fuel Cell Vehicle  
 FGR -- Flue Gas Recirculation  
 FHWA -- Federal Highway Administration  
 FR -- Federal Register  
 FT -- Fischer-Tropsch Diesel Fuel  
 GIS -- Geographic Information System  
 GloBEIS -- Global Biosphere Emissions and Interactions System  
 gpm -- Gallons per Minute  
 GTM -- Gross Ton Mile  
 HAP -- Hazardous Air Pollutant  
 HARC -- Houston Advanced Research Center  
 HDT -- Heavy-Duty Truck  
 HECT -- Highly Reactive Volatile Organic Compound Emissions Cap and Trade Program  
 HGB -- Houston-Galveston-Brazoria  
 H-GAC -- Houston-Galveston Area Council  
 HOV -- High Occupancy Vehicle  
 hp -- Horsepower  
 HPMS -- Highway Performance Monitoring System  
 HRVOC -- Highly Reactive Volatile Organic Compound  
 HSC -- Houston Ship Channel  
 IC -- Internal Combustion  
 ICI -- Industrial, Commercial, and Institutional  
 IECC -- International Energy Conservation Code  
 I/M -- Inspection and Maintenance  
 km -- Kilometer  
 $K_{vs}$  -- Vertical Exchange Coefficient  
 LAER -- Lowest Achievable Emission Rate  
 lb/MMBtu -- Pound per Million British Thermal Units  
 LDAR -- Leak Detection and Repair  
 LIDIR -- Light Detection and Ranging  
 LDEQ -- Louisiana Department of Environmental Quality  
 LDGV -- Light-Duty Gasoline Vehicle  
 LDT -- Light-Duty Truck  
 LDV -- Light-Duty Vehicle  
 LED -- Low Emission Diesel  
 LEV -- Low Emission Vehicle  
 LEV II -- California's Low Emission Vehicle II Program  
 LIRAP -- Low Income Repair and Assistance Program  
 LNB -- Low Nitrogen Oxides (NO<sub>x</sub>) Burners  
 LNC -- Low Nitrogen Oxides (NO<sub>x</sub>) Combustors  
 LNG -- Liquefied Natural Gas  
 LTO -- Landing and Take-Off  
 MACT -- Maximum Achievable Control Technology  
 Mcf -- Thousand Cubic Feet  
 MCR -- Mid-Course Review  
 MDPV -- Medium-Duty Passenger Vehicle  
 MECT -- Mass Emissions Cap and Trade Program  
 MM5 -- Fifth Generation Meteorological Model  
 MMBtu/hr -- Million British Thermal Units per Hour  
 MMcf -- Million Cubic Feet  
 MMS -- Minerals Management Service

MOA -- Memorandum of Agreement  
MON -- Miscellaneous Organic National Emission Standards for Hazardous Air Pollutants (NESHAP)  
mph -- Miles per Hour  
MVEB -- Motor Vehicle Emissions Budget  
MW -- Megawatts  
MY -- Model Year  
NAAQS -- National Ambient Air Quality Standard  
NCTCOG -- North Central Texas Council of Governments  
NEGF -- Non-Electric Generating Facility  
NEI -- National Emissions Inventory  
NESHAP -- National Emission Standards for Hazardous Air Pollutants  
ng/J -- Nanogram per Joule  
NMIM -- National Mobile Inventory Model  
NOAA -- National Oceanic and Atmospheric Administration  
Non-EGU -- non-Electric Generating Unit  
NO<sub>x</sub> -- Nitrogen Oxides  
NO<sub>y</sub> -- Nitrogen Species  
NSCR -- Non-Selective Catalytic Reduction  
NTRD -- New Technology Research and Development Program  
O<sub>3</sub> -- Ozone  
OGV -- Ocean-Going Vessel  
PAYD -- Pay As You Drive  
PBL -- Planetary Boundary Layer  
PEI -- Periodic Emissions Inventory  
PFC -- Portable Fuel Container  
PERP -- Portable Engine Registration Program  
PiG -- Plume-in-Grid  
PM -- Particulate Matter  
PM<sub>2.5</sub> -- Particulate Matter 2.5 microns and less  
ppb -- Parts Per Billion  
ppbC -- Parts Per Billion Carbon  
ppbv -- Parts Per Billion by Volume  
ppm -- Parts Per Million  
PSCF -- Potential Source Contribution Factors  
PSDB -- Point Source Database  
psia -- Pounds per Square Inch Absolute  
PUC -- Public Utility Commission  
RACT -- Reasonably Available Control Technology  
RACM -- Reasonably Available Control Measure  
RFP -- Reasonable Further Progress  
RMSE -- Root Mean Square Error  
ROP -- Rate-of-Progress  
RRF -- Relative Reduction Factor  
SB -- Senate Bill  
SCAQMD -- South Coast Air Quality Management District  
scfm -- Standard Cubic Feet per Minute  
SCR -- Selective Catalytic Reduction  
SEP -- Supplemental Environmental Programs  
SETPMTC -- Southeast Texas Photochemical Modeling Technical Committee  
SIC -- Standard Industrial Classification

SIP -- State Implementation Plan  
SNCR -- Selective Non-Catalytic Reduction  
SOV -- Single Occupancy Vehicle  
STP -- Surface Transportation Program  
SWCV -- Solid Waste Collection Vehicle  
TAC -- Texas Administrative Code  
TACB -- Texas Air Control Board  
TCAA -- Texas Clean Air Act  
TCEQ -- Texas Commission on Environmental Quality (Commission)  
TCM -- Transportation Control Measure  
TDM -- Travel Demand Model  
TERP -- Texas Emissions Reduction Plan  
TexAQS 2000 -- Texas Air Quality Study 2000  
TexAQS II -- Texas Air Quality Study 2006  
TKE -- Turbulent Kinetic Energy  
TNMHC -- Total Non-methane Hydrocarbon  
TNRCC -- Texas Natural Resource Conservation Commission  
tpd -- tons per day  
tpy -- tons per year  
TSE -- Truck Stop Electrification  
TTI -- Texas Transportation Institute  
TUC -- Texas Utility Code  
TxDOT -- Texas Department of Transportation  
TxLED -- Texas Low Emission Diesel  
USC -- United States Code  
VMEP -- Voluntary Mobile Source Emissions Reduction Program  
VMT -- Vehicle Miles Traveled  
VOC -- Volatile Organic Compound  
VRU -- Vapor Recovery Unit  
ZEB -- Zero Emission Bus  
ZEV -- Zero Emissions Vehicle

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## CHAPTER 1: BACKGROUND AND INTRODUCTION

### 1.1. GENERAL

“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 may be viewed on the Texas Commission on Environmental Quality’s (TCEQ) Web site at: <http://www.tceq.state.tx.us/implementation/air/sip/sipintro.html#History>.

The Texas Portable Fuel Container (PFC) regulations became effective on January 1, 2006, as part of the Texas ozone control strategy described in the 2004 Rate of Progress SIP revision for the Houston-Galveston-Brazoria area and were estimated to reduce volatile organic compounds (VOC) emissions by 12.4 tons per day (tpd) during ozone season for Texas by 2007. The Five Percent Increment of Progress SIP revision for the Dallas-Fort Worth (DFW) area (2005) estimates a 2.79 tpd VOC emissions reduction in the DFW nine-county area and 0.63 tpd VOC reduction in the DFW 100-kilometer area by 2007 from the Texas PFC rules. The Austin Area Early Action Compact (EAC) Ozone SIP Revision (2004) includes an estimated 0.89 tpd VOC reduction by 2007 from the state rule. The state PFC rule control measure is also cited in several other Texas SIP revisions, including: the Eight-Hour Ozone Maintenance Plan For the Victoria County Ozone Attainment Area (2006), the Beaumont-Port Arthur (BPA) Attainment Demonstration SIP revision (2005), the San Antonio Area EAC Ozone SIP Revision (2004), and the Northeast Texas Area EAC Ozone Revision (2004). The PFC rule is also included in the 2008 Austin-Round Rock Eight-Hour Ozone Flex Memorandum of Agreement Plan (2008). Emissions reductions associated with the state PFC rule are not quantified in the later mentioned SIP revisions. Table 1.1: *Texas SIP Revisions and Memorandum of Agreement that Cite the State PFC Rule*, provides reference information for Texas SIP revisions that identify the state PFC rule in the ozone control strategy.

On February 26, 2007, the EPA adopted a federal PFC rule (72 *Federal Register* 8432), setting new national standards for gasoline, diesel, and kerosene PFCs. All PFCs manufactured on or after January 1, 2009, must comply with those 2007 federal standards. The federal standards are similar to PFC regulations that were adopted by the State of California in 2005.

Current Texas PFC regulations are based on outdated PFC testing methods and are not consistent with the 2007 federal standards. Adopted rulemaking repealing the Texas PFC rule, Rule Project No. 2008-032-115-EN Portable Fuel Container (PFC) Rule Repeal, accompanies this adopted Texas PFC SIP. This SIP revision adopts the removal of the state PFC rule from the Texas ozone control strategy and demonstrates that 2007 federal PFC standards provide equal to or greater emissions reductions than those resulting from state regulations. Sufficient replacement reductions are expected from the federal rule because every PFC sold or brought into the state must meet federal PFC standards. Repeal of the state rule does not negatively affect Texas’ attainment of the 1997 eight-hour ozone standard. Commission adoption of the rule repeal and this SIP revision does not weaken the SIP for the control of ozone. (See Appendix A)

**Table 1.1: Texas SIP Revisions and Memorandum of Agreement that Cite the State PFC Rule**

TCEQ Project Number	SIP Title	Reference	
		Section	Page(s)
2006-023-SIP-NR	Eight-Hour Ozone Maintenance Plan SIP Revision for the Victoria County Ozone Attainment Area	3.3.7	3-8
2004-096-SIP-AI	Five Percent Increment Of Progress Demonstration for the Dallas-Fort Worth Ozone Nonattainment Area Eight -Hour Ozone Standard	5.2.2	5-3
2004-049b-SIP-NR	Post 1999 Rate-Of-Progress Demonstration Plan for the Houston-Galveston-Brazoria Nonattainment Area	Associated Rule Change (2003-033-114-AI)	
2004-086-SIP-NR	Austin Area Early Action Compact Ozone SIP Revision	5.3.3.A3	5.9
2005-020-SIP-NR	Beaumont-Port Arthur Ozone Attainment Demonstration SIP Revision	5.2.1	5-1
2004-085-SIP-NR	San Antonio Area Early Action Compact Ozone SIP Revision	5.3.3.A4	5.8
2004-077-SIP-NR	Northeast Texas Area Early Action Compact Ozone SIP Revision	3.6	3-3
2007-020-MIS-NR	Austin-Round Rock Eight-Hour Ozone Flex Memorandum of Agreement Plan	3.2.2	36

**1.2 HEALTH EFFECTS**

In 1997, the EPA revised the National Ambient Air Quality Standard for ozone from a one-hour to an eight-hour standard based on scientific data that indicated that the eight-hour standard provides better protection of public health from longer-term exposures to moderate levels of ozone. To support the eight-hour ozone standard, the EPA provided information that indicated that even low levels of ozone can significantly decrease lung capacity temporarily in some healthy adults and cause inflammation of lung tissue, aggravate asthma, and make people more susceptible to respiratory illnesses such as bronchitis and pneumonia.

Children are at a higher risk from exposure to ozone since they breathe more air per pound of body weight than adults and because children's respiratory systems are still developing. Children also spend a considerable amount of time outdoors during summer and during the start of the school year (August-October) when ozone levels are typically higher. Adults most at risk to ozone exposure are outdoor workers, people outside exercising, and individuals with pre-existing respiratory diseases.

**1.3 PUBLIC/STAKEHOLDER PARTICIPATION**

TCEQ staff were present at the following time and location to conduct a public hearing on the proposed SIP revision and rule package. No member of the public wished to present comments, so staff did not open the public hearing.

<b>CITY</b>	<b>DATE</b>	<b>TIME</b>	<b>LOCATION</b>
Austin	October 6, 2009	2:00 p.m.	Texas Commission on Environmental Quality 12100 North I-35 Building E, Room 201

The comment period opened on September 11, 2009, and closed on October 12, 2009. Additionally, no written comments were received during the comment period.

#### **1.4 SOCIAL AND ECONOMIC CONSIDERATIONS**

For a detailed explanation of any social or economic issues involved with the adopted rulemaking to repeal the Texas PFC rule, Rule Project No. 2008-032-115-EN *Portable Fuel Container (PFC) Rule Repeal*, please refer to the preamble preceding the rule adoption package accompanying this adopted SIP revision.

#### **1.5 FISCAL AND MANPOWER RESOURCES**

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

## CHAPTER 2: TEXAS PORTABLE FUEL CONTAINER RULE REPEAL

### 2.1 PORTABLE FUEL CONTAINER (PFC) REQUIREMENTS

PFC regulations control volatile organic compounds (VOC) emissions by requiring specific container features that limit the escaped emissions. There are several basic VOC-limiting features that PFC regulations may require. Current Texas regulations, 30 Texas Administrative Code Chapter 115, Subchapter G, Division 2, and United States regulations, (72 *Federal Register* 8432), both limit PFCs to one opening per container. In addition, Texas and federal regulations both require spouts on PFCs to automatically close and seal when not in use. Another VOC emissions-limiting feature is a spout that automatically shuts off during fuel tank filling when a specific fuel level is achieved. This auto shut-off feature is required by the Texas PFC rule, but it is not required by the federal regulations. Finally, a permeation seal or barrier to prevent the passage of VOC emissions through plastic container walls is an emissions-limiting feature required by the 2007 federal PFC standards but not by the state rule.

Table 2.1: *Comparison of State and Federal PFC Regulations* compares rule requirements for specific PFC features. As shown, state and federal PFC rules differ in requirements for the permeation barrier seal and the spout automatic shut-off.

**Table 2.1: Comparison of State and Federal PFC Regulations**

Control Feature	State rule	Federal rule
One opening per container	Required	Required
Spout: auto close and seal	Required	Required
Spout: automatic shut-off	Required	Not required
Permeation barrier seal	Not required	Required

### 2.2 EMISSIONS REDUCTIONS FROM PFC REGULATIONS

Table 2.2: *Statewide VOC Emissions Reductions (ozone season tpd): Federal vs. State PFC Rules*, and Table 2.3: *HGB Area VOC Emissions Reductions(ozone season tpd): Federal vs. State PFC Rules*, each reveal differences between estimated VOC emissions reductions, in tons per ozone season day (tpd) resulting from the state and federal PFC rules. Table 2.2: *Statewide VOC Emissions Reductions (ozone season tpd): Federal vs. State PFC Rules*, reveals statewide emissions reductions expected from the Texas and federal rules during ozone season. Table 2.3: *HGB Area VOC Emissions Reductions (ozone season tpd): Federal vs. State PFC Rules*, provides estimated VOC emissions reductions information for the eight-county Houston-Galveston-Brazoria (HGB) area anticipated in the 2002 through 2019 period during the ozone season. The HGB area is defined as Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties. The estimated reductions for the years shown reflect applicable subjective percentages associated with rule effectiveness, differences in control types, and effective dates.

**Table 2.2: Statewide VOC Emissions Reductions (ozone season tpd): Federal vs. State PFC Rules**

Statewide	2002	2008	2011	2014	2017	2018	2019
State	78.22	70.06	55.65	52.07	54.51	55.32	56.14
Federal	78.22	87.25	76.43	56.06	58.69	59.56	60.44

**Table 2.3: HGB Area VOC Emissions Reductions (ozone season tpd): Federal vs. State PFC Rules**

<b>HGB</b>	<b>2002</b>	<b>2008</b>	<b>2011</b>	<b>2014</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
State	19.45	17.40	13.78	12.87	13.48	13.68	13.88
Federal	19.45	21.70	19.14	14.30	14.97	15.19	15.41

### **2.3 EFFECT ON TEXAS OZONE CONTROL STRATEGY**

Adopted concurrently with this SIP revision is rulemaking that repeals the current Texas PFC regulations, Rule Project No. 2008-032-115-EN PFC Rule Repeal. This Texas PFC Rule Repeal SIP revision adopts the removal of the state PFC rule from Texas' ozone control strategy and demonstrates that the 2007 federal PFC standards provide sufficient replacement emissions reductions for Texas upon repeal of the state PFC rule.

The federal PFC rule provides emissions reductions for Texas greater than those resulting from the Texas PFC rule because every PFC sold or brought into the state must now meet the 2007 federal standards. In Section 2.2: *Emissions Reductions from PFC Regulations*, Table 2.2: *Statewide VOC Emissions Reductions (ozone season tpd): Federal vs. State PFC Rules*, and Table 2.3: *HGB Area VOC Emissions Reductions(ozone season tpd): Federal vs. State PFC Rules*, both show that the 2007 federal PFC rule provides VOC emissions reductions equal to those benefited from the Texas PFC rule in 2002. The tables also demonstrate that expected emissions reductions from the federal rule are greater in 2008 and beyond than the state rule reductions.

Repeal of the state PFC rule will not negatively affect Texas' attainment of the 1997 eight-hour ozone standard. Commission adoption of the rule repeal and SIP revision will not weaken the control strategy in the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution. EPA Region 6 staff agree that the rule repeal does not relax the Texas ozone control strategy.

## **Federal Register Rule vs. Texas Register Rule Portable Fuel Containers**

After close inspection of the Federal Register 40 CFR Parts 59, 80, 85, and 86 (Control of Air Pollution from Mobile Sources) and the Texas Register 30 TAC Chapter 115: Control of Air Pollution from Volatile Organic Compounds, Subchapter G: Consumer Related Sources, Division 2: Portable Fuel Containers, it has been determined that the Federal Register rule is more stringent than the Texas Register rule regarding Portable Fuel Containers.

Texas Register 30 TAC Chapter 115: Control of Air Pollution from Volatile Organic Compounds, Subchapter G: Consumer Related Sources, Division 2, established requirements relating to the design criteria for portable fuel containers and portable fuel container spouts. These rules established only design criteria for “no-spill” portable gas cans and did not establish performance-based standards. These design criteria include the following requirements: that each portable fuel container have only one hole in the vessel in order to reduce emissions that occur when vent holes (a small hole in the vessel that is used to expedite the flow of fuel out of the portable fuel container) are left open, leading to evaporative emissions and possibly spillage of fuel; that each portable fuel container spout have an automatic shut-off device to prevent over-filling; that each portable fuel container spout automatically close and seal when removed from the fuel tank, seal without leakage when affixed to the portable fuel container vessel, and meet fuel flow rate and cut off level standards. Unlike the Federal Register rule, the Texas Register rule established no emission standards to ensure that complying with the design criteria would

personal watercraft. In addition to the performance-based standard of 0.3 grams per gallon per day of hydrocarbons, the Federal Register rule also established test procedures and a certification and compliance program, in order to ensure that containers meet the emission standard over a range of in-use conditions. The Texas Register rule established no such procedures and programs. The Federal Register rule established a system of regulations for portable fuel containers that includes test conditions designed to assure that the intended emission reductions occur over a range of in-use conditions such as operating at different temperatures, with different fuels, and considering factors affecting durability. Whether the performance-based standard of 0.3 grams per gallon per day of hydrocarbons is complied with is to be determined based on the emissions from the portable fuel container over a diurnal test cycle. The diurnal test measures hydrocarbon emissions from the portable fuel container due to permeation and evaporative losses from the container as a whole. In addition, the Federal Register established three durability aging cycles to help ensure durable permeation barriers: slosh, pressure-vacuum cycling, and ultraviolet (UV) exposure. The purpose of these durability/deterioration cycles is to help ensure that the technology chosen by the manufacturers is durable in-use, representing best available control, and the measured emissions are representative of in-use permeation rates. The Federal Register rule also established a durability demonstration for portable fuel container spouts to help ensure quality spout designs that do not fail in-use and result in spillage. Unlike the Texas Register rule, the Federal Register rule takes into consideration that emissions from portable fuel containers are usually higher in containers that have been in use for a longer period of time, as opposed to only considering emissions from new portable fuel containers. Unlike the Texas

that the Federal Register rule regarding Portable Fuel Containers is more stringent than the Texas Register rule.

**ORDER ADOPTING REPEALED RULES AND  
REVISION TO THE STATE IMPLEMENTATION PLAN**

Docket No. 2009-0542-RUL; 2009-0744-SIP

On February 10, 2010, the Texas Commission on Environmental Quality (Commission), during a public meeting, considered adoption of the repeal of §§115.620 - 115.622, 115.626, 115.627, and 115.629 of 30 Texas Administrative Code (TAC) Chapter 115, Control of Air Pollution from Volatile Organic Compounds, and corresponding revisions to the state implementation plan (SIP). This adoption to the Texas Portable Fuel Container (PFC) Rule Repeal SIP Revision (Texas PFC Rule Repeal SIP) removes Texas PFC regulations from the control strategy for the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution. This adoption to the SIP revision incorporates rulemaking repealing state PFC rules and demonstrates that federal PFC standards promulgated in 2007 provide replacement emission reductions. Because those emission reductions are estimated to be equal to or greater than those derived from the state regulations, the repeal of the Texas PFC rule will not negatively impact the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution Under Texas Health and Safety Code Ann. §§382.011, 382.012, and 382.023 (Vernon 2008), 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 Texas Health and Safety Code. The proposed rule was published for comment in the September 11, 2009 issue of the *Texas Register* (34 TexReg 6279).

Pursuant to Texas Health and Safety Code Ann. §382.017 (Vernon 2008), Tex. Government Code Chapter 2001 (Vernon 2008), and 40 Code of Federal Regulations §51.102, and after proper notice, the Commission conducted a public hearing to consider the repealed rules and revisions 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 Building E, Room 201 at the Commission's central office located at 12100 Park 35 Circle on October 6, 2009.

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 repealed rules and SIP revisions, either orally or in writing, at the hearing or during the comment period. Prior to the scheduled hearing, copies of the proposed repealed rules and SIP revisions were available for public inspection at the Commission's central office and on the Commission's Web site.

IT IS THEREFORE ORDERED BY THE COMMISSION that the repealed rules and revisions to the SIP incorporated by reference to this Order are hereby adopted. The Commission further authorizes staff to make any non-substantive revisions to the rules necessary to comply with *Texas Register* requirements. The adopted rules and the preamble to the adopted rules and the revisions to the SIP are 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 rules and revisions 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.

This Order constitutes the Order of the Commission required by the Administrative Procedure Act, Texas Government Code, § 2001.033 (Vernon 2008).

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.

Date issued:

TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

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Bryan W. Shaw, Ph.D., Chairman