

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
AGENDA ITEM REQUEST

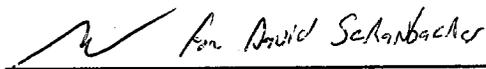
Proposed State Implementation Plan Revision

AGENDA REQUESTED: August 6, 2008

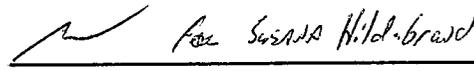
DATE OF REQUEST: July 18, 2008

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

CAPTION: Docket No. 2008-0926-SIP. Consideration for publication of, and hearing on, a proposed revision to the Dallas-Fort Worth (DFW) Eight-Hour Ozone Standard Nonattainment Area State Implementation Plan (SIP). This SIP revision, named DFW Eight-Hour Ozone Attainment Demonstration SIP Revision for the 1997 eight-hour ozone standard (For only the Contingency Measure Plan and Discrete Emissions Reduction Credit (DERC) Program), incorporates a DERC rule revision and sets a limit on DERC use for the DFW nonattainment area. In addition, this SIP revision identifies reductions to satisfy the U.S. Environmental Protection Agency's three percent contingency requirement for the DFW 1997 Eight-Hour Ozone Standard Nonattainment Area. The Motor Vehicle Emissions Budget (MVEB) for nitrogen oxides (NO_x) and volatile organic compound (VOC) emissions, set in the DFW Eight-Hour Ozone Attainment Demonstration SIP Revision for the 1997 eight-hour ozone standard that was submitted to the EPA on June 15, 2007, is not changed or affected by this SIP revision. (Mary Ann Cook, Terry Salem) (Project No. 2008-016-SIP-NR)



Chief Engineer



Division Director



Agenda Coordinator

Copy to CCC Secretary? NO

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Commissioners **Date:** July 18, 2008
Thru: LaDonna Castañuela, Chief Clerk
Mark R. Vickery, P.G., Executive Director
From: David C. Schanbacher, P.E., Chief Engineer *Greg Nuebel*
Chief Engineer's Office *for DCS*

Docket No.: 2008-0926-SIP

Subject: Commission Approval for a Proposed Revision to the State Implementation Plan (SIP) for the Control of Ozone Air Pollution in the Dallas-Fort Worth (DFW) Eight-Hour Ozone Nonattainment Area

Project No. 2008-016-SIP-NR

Reasons for the SIP package:

In June of 2008, the EPA proposed conditional approval of the Dallas-Fort Worth (DFW) Eight-Hour Ozone Attainment Demonstration SIP Revision for the 1997 eight-hour ozone standard (DFW AD SIP). To grant final approval of the DFW AD SIP submitted on June 15, 2007, the U.S. Environmental Protection Agency (EPA) requires that certain conditions be met. The TCEQ can fulfill these conditions through rule and SIP revisions. Along with this proposed SIP revision, a rule change will be proposed to create an enforceable mechanism that allows the executive director to restrict the use of Discrete Emissions Reduction Credits (DERCs) in the DFW eight-hour ozone nonattainment area (DFW area) to a level consistent with the attainment and maintenance of the National Ambient Air Quality Standard (NAAQS). The rule proposal and this SIP proposal will together satisfy the EPA's required implementation of an enforceable mechanism for DERC limitation for the DFW area. This Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration SIP Revision for the 1997 eight-hour ozone standard (For only the Contingency Measure Plan and Discrete Emissions Reduction Credit (DERC) Program) will also identify measures for a three percent emissions reduction post-2009 contingency plan for the DFW area as required by the EPA.

This SIP package meets the EPA requirements for conditional approval of the DFW AD SIP. This proposed DFW SIP revision:

- Incorporates a rule restricting DERC use in the DFW area;
- Limits DERC use consistent with attainment of the eight-hour ozone standard in the DFW area; and
- Identifies and quantifies measures to meet the EPA's three percent emissions reduction contingency plan requirement for the DFW area. These measures include: federal engine and fuel standards and Chapter 115 VOC rules on Offset Lithographic Printing; De-gassing or Cleaning of Stationary, Marine, and Transport Vessels; and Petroleum Dry Cleaning.

Under what authority are we proposing these changes?

The authority to propose and adopt the SIP 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; §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air; and §382.0173, which authorizes the commission to adopt SIP and rule requirements relating to this SIP revision.

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Is this SIP revision required by federal rule or state statute? Which ones?

Yes - the Federal Clean Air Act, § 172(c)(9) requires that contingency measures be included in the SIP Revision.

Are there any legal deadlines by which these rules must be proposed, adopted, or effective?

Yes - to meet the requirements established by the EPA for approval of the DFW AD SIP to be finalized, this SIP revision must be submitted to the EPA by March 1, 2009. If TCEQ does not submit this SIP revision to EPA, EPA will not move forward with a final approval of the DFW AD SIP revision.

What issue(s) or problem(s) are we trying to solve?

We are trying to prevent a possible disapproval of the DFW AD SIP revision that was submitted to the EPA in June 2007. To obtain EPA approval of that SIP, we must meet conditions that EPA has identified as requirements for their conditional approval of the DFW AD SIP revision that was submitted to EPA in June 2007. Those conditions are to implement an enforceable mechanism to restrict DERC usage in the DFW area and to revise the contingency plan for the DFW AD SIP to meet the EPA's three percent emission reduction requirement for the DFW area.

• **Why is it important that we do this SIP revision?**

This SIP revision is required in order for the EPA to grant final approval of the DFW AD SIP that was submitted to EPA in June 2007. The EPA requires the DERC rule revision to be effective by March 1, 2009, the DFW contingency plan revised to meet requirements, and a SIP revision incorporating those changes to be submitted by March 1, 2009. The TCEQ executive director sent a letter to the EPA dated June 13, 2008, with a commitment to propose these rule and SIP revisions for the commission's consideration.

• **Other important background or historical information.**

The DFW Eight-Hour Ozone AD SIP was adopted by the TCEQ in May 2007, and submitted to the EPA on June 15, 2007. That SIP revision introduced control strategies for nitrogen oxides (NO_x) and volatile organic compounds (VOC) in the DFW area. The DFW AD SIP revision demonstrates that ozone measurements in the DFW area will be compliant with the National Ambient Air Quality Standards by June 15, 2010. The attainment demonstration is based on photochemical modeling that included new control strategies along with evaluation of additional corroborative evidence. The DFW AD SIP revision relies on a weight of evidence argument and control measures that are not explicitly accounted for in the photochemical modeling. The weight of evidence argument includes analyses of ozone reduction trends and supplementary data to help demonstrate that the DFW nine-county nonattainment area will attain the 1997 eight-hour ozone standard.

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The TCEQ received a letter from the EPA in March 2008, requesting specific supplemental and clarifying information related to the DFW AD SIP. In an April 2008 response, the TCEQ sent a letter to the EPA providing the information requested. Upon review of the DFW AD SIP supplemental information, the EPA requested a commitment from the TCEQ to propose rulemaking restricting DERC use in the DFW nonattainment area. Additionally, the EPA requested a commitment from the TCEQ to propose another DFW SIP revision that will set DERC use limits for the DFW area and identify contingency measures to fulfill a three percent emissions reduction requirement. This proposed SIP revision incorporates the DERC rule revision requested by the EPA, and sets a limit on DERC use for the DFW area consistent with the DFW area attainment of the 1997 eight-hour ozone standard and future standards for which an attainment demonstration is submitted. Furthermore, this proposed SIP revision identifies measures to satisfy the EPA's three percent emissions reduction contingency requirement for the DFW area.

Scope of the SIP revision:

This SIP revision implements an enforceable mechanism for restricting DERC use by incorporating a proposed revision to the 30 Texas Administrative Code Chapter §101, Subchapter H, Division 4, Banking and Trading rule. This SIP revision also corrects the current DFW area eight-hour ozone contingency plan by identifying and quantifying control measure emissions reductions to satisfy the EPA's three percent contingency requirement.

The Motor Vehicle Emissions Budget (MVEB) for NO_x and VOC emissions set in the DFW Eight-Hour Ozone AD SIP Revision is not changed or affected by this supplemental DFW SIP revision.

• **Changes required by federal rule:**

Section § 172(c)(9) of the Federal Clean Air Act requires that a contingency plan providing for the implementation of specific measures to be undertaken if an area fails to attain the national primary ambient air quality standard by the attainment date applicable must be included in the SIP Revision. Such measures shall take effect in any such case without further action by the State or the Administrator.

• **Changes required by state statute:**

None

• **Staff recommendations that are not expressly required by federal rule or state statute:**

None

Impact on the regulated community:

• **Who will be affected?**

All Electric Generating Units within the DFW eight-hour ozone nonattainment area have the potential to voluntarily reduce emissions that can be banked as emission credits. DFW industries that own DERCs or want to utilize DERCs as an alternative compliance mechanism will be affected.

• **Does it create a group of affected persons who were not affected previously? How?**

No.

• **Will there be a fiscal impact? If so, estimate.**

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There could be fiscal impact to regulated entities that own or want to use banked DERCs. Impact would vary depending on market conditions.

Impact on the public:

- **Who will be affected?**
No new impact on the general public is expected from this SIP revision.
- **Does it create a group of affected persons who were not affected previously? How?**
No.
- **Will there be a fiscal impact? If so, estimate.**
No fiscal impact to the public is anticipated.

Impact on agency programs:

- The proposed DFW SIP revision will affect the following agency offices: the Emissions Banking and Trading Program within the Chief Engineer's Office.

Stakeholder meetings:

- **Have any stakeholder meetings been held?**
No. There was insufficient time for large stakeholder meetings, and meetings were not needed to support the rulemaking required by this proposed DFW SIP revision because of the small group of entities that own banked DERCs. However, interested parties were made aware of the rule revision in meetings with TCEQ.
- **With whom?**
Meetings were held with the two current owners of DERCs in the DFW eight-hour ozone nonattainment area.
- **What were the general sentiments?**
One owner of DERCs in the DFW eight-hour ozone nonattainment area expressed concern about how the rule proposal may impact their ability to use DERCs in the future.
- **Were any changes made in response to stakeholder concerns?**
No.

Policy issues:

- **What policy issues are affected?**
Since inception of the program, DERC use in the DFW area has been limited only as to credits contained in the bank. Upon adoption of the DERC rule and this SIP revision, DERC use will be further limited to a level that is consistent with the applicable Attainment Demonstration SIP for the area, effective March 1, 2009. Policies affected are those related to DERC use and those related to determination of DERC limits, such as a new annual review and report requirement.
- **Are any policies that are not currently based on rule being made into a rule?**
No.

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- **What are the consequences if this rulemaking is not approved to go forward?**
Per the EPA, not submitting this SIP revision will lead to disapproval of the DFW AD SIP for the 1997 eight-hour ozone standard. That disapproval could further lead to federal sanctions, a Federal Implementation Plan, or both.
- **Are there alternatives?**
No. The EPA has stated that approval of the DFW SIP submitted to EPA in 2007 will not occur without adoption of the DERC rule and this SIP revision.

Potentially controversial matters:

There is high interest from local governments, the EPA, environmental groups, and the regulated community (DERC generators). The proposed rulemaking to be incorporated into this SIP revision and the SIP limitations on DERC usage for 2009 may invoke comments from industry representatives concerned about reduced program flexibility and/or reduced viability of the DERC market. Future litigation related to this DFW SIP revision is possible.

Key points in proposed rulemaking schedule:

- **Anticipated proposal date:** August 6, 2008
- **Anticipated *Texas Register* publication date:** August 22, 2008
- **Public hearing date (if any):** September 9 and September 10, 2008, to be held in Dallas and Arlington, Texas
- **Public comment period:** Closes September 12, 2008
- **Anticipated adoption date:** December 10, 2008

Agency contacts:

Mary Ann Cook, DFW SIP Project Manager, 239-6739, Air Quality Division
Kathy Singleton, DFW SIP Project Manager, 239-6098, Air Quality Division
Jay Tonne, DERC Rule Project Manager, 239-1453, Air Quality Division
Terry Salem, Staff Attorney, 239-0469

Attachments

cc: Chief Clerk, 5 copies
Executive Director's Office
David C. Schanbacher, P.E.
Ashley K. Wadick
Daniel Womack
Kevin Patteson
Office of General Counsel
Mary Ann Cook
Kathy Singleton
Joyce Spencer

REVISION TO THE STATE IMPLEMENTATION PLAN
FOR THE CONTROL OF OZONE AIR POLLUTION

DALLAS-FORT WORTH 1997 EIGHT-HOUR OZONE STANDARD
NONATTAINMENT AREA



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

Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration SIP Revision
for the 1997 eight-hour ozone standard (For only the Contingency Measure Plan
and Discrete Emissions Reduction Credit (DERC) Program)

PROJECT NO. 2008-016-SIP-NR

Proposed
August 6, 2008

EXECUTIVE SUMMARY

The Dallas-Fort Worth (DFW) Eight-Hour Ozone Attainment Demonstration (AD) State Implementation Plan (SIP) revision for the 1997 eight-hour ozone standard that was adopted by the Texas Commission on Environmental Quality (TCEQ) in May 2007, was submitted to the Environmental Protection Agency (EPA) on June 15, 2007. That DFW AD SIP revision introduced control strategies for nitrogen oxides (NO_x) and volatile organic compounds (VOC) in the DFW area. The DFW AD SIP demonstrates that ozone measurements in the DFW nine-county eight-hour ozone nonattainment area (DFW area) will be compliant with the National Ambient Air Quality Standards by June 15, 2010. The attainment demonstration is based on photochemical modeling that included new control strategies as well as an evaluation of corroborative evidence. The DFW AD SIP also relies on a weight of evidence argument and additional control measures that are not explicitly accounted for in the photochemical modeling. The weight of evidence argument includes ozone reduction trends analyses and supplementary data to help demonstrate that the DFW area will attain the 1997, 85 ppb eight-hour ozone standard.

In June 2007, the EPA began reviewing the DFW AD SIP and the associated Chapter 117 rule revisions. The TCEQ received a letter from the EPA in March 2008, requesting specific supplemental and clarifying information related to the DFW AD SIP. In an April 2008 response, the TCEQ sent a letter to the EPA providing the information requested.

Upon review of the DFW AD SIP supplemental information, the EPA requested a commitment from the TCEQ to propose rulemaking restricting Discrete Emissions Reduction Credit (DERC) use in the DFW area. Additionally, the EPA requested a commitment from the TCEQ to propose a DFW SIP revision setting DERC use limits for the DFW area and identifying contingency measures to fulfill a three percent emissions reduction requirement. This SIP revision incorporates the proposed DERC rule revision requested by the EPA and sets a limit on DERC use for the DFW area. Furthermore, this SIP revision identifies measures to satisfy the EPA's three percent reduction contingency requirement for 2010 for the DFW area, which will apply only in the event that the DFW nonattainment area fails to meet the 85 ppb eight-hour ozone standard by the attainment deadline. The Motor Vehicle Emissions Budget (MVEB) for NO_x and VOC emissions set in the DFW AD SIP Revision is not changed or affected by this supplemental DFW SIP revision.

The proposed DERC rule revision and this SIP revision are both tentatively scheduled for consideration to adopt by the commission on December 10, 2008. If adopted, the TCEQ intends to submit the DERC rule revision and this DFW SIP revision to the EPA by December 15, 2008.

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 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 77th 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).

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 National Ambient Air Quality Standards (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 SIP. The rules listed below have previously been submitted as part of the SIP.

Statutes

TEXAS HEALTH & SAFETY CODE, Chapter 382 September 1, 2007

TEXAS WATER CODE September 1, 2007

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

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, 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 Title 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; 39.602; 39.603; 39.604; and 39.605

March 29, 2006

Chapter 55, Request for Contested Case Hearings; Public Comment,

§§ 55.1; 55.21(a) - (d), (e)(2), (3) and (12), (f) and (g); 55.101(a), (b), (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	July 5, 2006
Chapter 101: General Air Quality Rules	August 16, 2007
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	December 27, 2007
Chapter 114: Control of Air Pollution from Motor Vehicles	February 21, 2008
Chapter 115: Control of Air Pollution from Volatile Organic Compounds	July 19, 2007
Chapter 116: Permits for New Construction or Modification	January 10, 2008
Chapter 117: Control of Air Pollution from Nitrogen Compounds	June 14, 2007
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* (**Revisions proposed August 6, 2008**)
 - Chapter 1: Background and Introduction (**Revised**)
 - Chapter 2: Photochemical Modeling (No change since May 2007 revision)
 - Chapter 3: Corroborative Analysis (**Revised**)
 - Chapter 4: Required Control Strategy Elements (**Revised**)
 - 2. *Houston-Galveston-Brazoria* (No change since June 2007 revision)
 - 3. *Beaumont-Port Arthur* (No change since September 2005 revision)
 - 4. *El Paso* (No change since January 2006 revision)
 - 5. *Regional Strategies* (No change since April 2000 revision)
 - 6. *Northeast Texas* (No change since November 2004 revision)
 - 7. *Austin Area* (No change since November 2004 revision)
 - 8. *San Antonio Area* (No change since November 2004 revision)
- 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)

LIST OF ACRONYMS

ACT -- Alternative Control Techniques
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 Emission Reduction Credits
DFW -- Dallas-Fort Worth
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
LDIR -- 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_x) Burners
LNC -- Low Nitrogen Oxides (NO_x) 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
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_x -- Nitrogen Oxides
NO_y -- Nitrogen Species
NSCR -- Non-Selective Catalytic Reduction
NTRD -- New Technology Research and Development Program
O₃ -- Ozone
OGV -- Ocean-Going Vessel
PAYD -- Pay As You Drive
PBL -- Planetary Boundary Layer
PEI -- Periodic Emissions Inventory
PERP -- Portable Engine Registration Program
PiG -- Plume-in-Grid
PM -- Particulate Matter
PM_{2.5} -- Particulate Matter less than 2.5 microns
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 Emission 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 U.S. Environmental Protection Agency (EPA) by the State of Texas may be viewed on the Texas Commission on Environmental Quality’s (TCEQ) website, at: <http://www.tceq.state.tx.us/implementation/air/sip/sipintro.html#History>.

The Dallas-Fort Worth (DFW) Eight-Hour Ozone Attainment Demonstration (AD) SIP was adopted by the commission on May 23, 2007, and submitted to the EPA on June 15, 2007, along with the associated adopted Chapter 117 nitrogen oxides (NO_x) rules. That DFW AD SIP demonstrates attainment of the eight-hour ozone standard by June 15, 2010, supported by photochemical modeling and weight of evidence arguments. The associated Chapter 117 rule revisions, applicable to Major Industrial, Commercial, and Institutional (ICI) Sources, Minor Sources, Electric Generating Facilities (EGFs), Cement Kilns, and East Texas Combustion Sources, are included as control measures in that DFW AD SIP. Except for the East Texas Combustion rule, which applies to specific counties in northeast Texas outside of the DFW Eight-Hour Ozone Non-attainment Area, the Chapter 117 rule revisions apply to the nine-county DFW nonattainment area. NO_x reductions from EGUs, cement kilns, and certain major and minor sources affected by those rules will result beginning no later than 2009. Further NO_x reductions resulting from rules on other major and minor sources, and on East Texas Combustion Engines, will result beginning no later than 2010. The DFW AD SIP revision includes a commitment from the North Central Texas Council of Governments (NCTCOG) to reduce NO_x emissions by 4.16 tons per day by the 2009 attainment year.

On March 7, 2008, the EPA requested specific supplemental and clarifying information regarding the DFW AD SIP from the TCEQ. On April 23, 2008, the TCEQ responded to EPA’s request and provided the information requested, including clarification of corrections made to the 2009 future emissions inventory projections. Those corrections made to future emissions inventory projections originally used in the DFW AD SIP photochemical modeling were made due to TCEQ’s receipt of updated emissions information for airports and a re-examination of the projected use of Discrete Emission Reduction Credits (DERCs) after the DFW AD SIP was submitted to the EPA.

Numerous sensitivity test analyses performed as part of the DFW AD SIP development were used to estimate the effects of the airport and DERC emission inventory updates. Clarifying information provided to the EPA regarding these inventory updates and their effects provide additional support for the attainment demonstration SIP for the eight-hour ozone standard in the DFW area.

Upon review of the DFW AD SIP supplemental information provided by TCEQ, the EPA requested TCEQ’s commitment to propose rulemaking restricting DERC use in the DFW nonattainment area. In addition, the EPA requested TCEQ’s commitment to propose a supplemental SIP revision that will (1) set a DERC usage limit for the DFW area, and (2) identify and quantify measures that fulfill EPA’s three percent emissions reduction contingency requirement for the DFW area. The TCEQ executive director submitted a letter to the EPA providing EPA’s requested commitments on June 13, 2008.

Concurrent with this SIP revision, TCEQ is proposing rulemaking that, subject to commission approval and adoption, would restrict DERC use in the DFW nonattainment area to satisfy TCEQ's commitment to the EPA for the DERC rulemaking. The proposed rule revision is further described in Chapter 4 of this SIP revision. Also contingent upon commission approval and adoption, this SIP revision satisfies TCEQ's commitment to the EPA for a supplemental DFW SIP revision submittal. This SIP revision incorporates the DERC rule revision that establishes the DERC flow-control restrictions, and sets limitations for DERC use in the DFW nonattainment area.

The contingency plan provided in this DFW SIP revision describes measures identified to satisfy EPA's three percent emissions reduction requirement, based upon the 1999 base year emissions inventory used to develop the DFW AD SIP. The contingency measures apply to 2010 only, and become effective only in the event that the DFW eight-hour ozone nonattainment area fails to attain the 1997, 85 ppb eight-hour ozone standard by the attainment deadline. Additional information about this contingency plan and measures is provided in Chapter 4 of this SIP revision.

The proposed DERC rule revision and this SIP revision proposal are both tentatively scheduled for commission consideration on December 10, 2008, for adoption. If adopted, the TCEQ intends to submit the DERC rule revision and this DFW SIP revision to the EPA by December 15, 2008.

1.2. HEALTH EFFECTS

(NO CHANGE SINCE MAY 2007 REVISION)

1.3. PUBLIC COMMENT

The commission will hold public hearings on this proposed SIP revision for the Dallas-Fort Worth eight-hour ozone nonattainment area in Dallas, Texas on September 9, 2008, at 6:30 p.m., at the J. Erik Jonsson Central Library Auditorium, 1515 Young Street, and in Arlington, Texas on September 10, 2008, at 10:00 a.m., at the City of Arlington City Council Chambers, 101 W. Abram Street. The public hearings will be structured for receipt of oral and written comments by interested persons. Individuals may present oral statements when called upon, which will be in order of their registration. Open discussion will not be permitted during the public hearing itself; however, commission staff members will be available to discuss the proposal for thirty (30) minutes prior to the hearing. Persons with special communication or accommodation needs should contact Joyce Spencer, Air Quality Planning Section, at (512) 239-5017, at their earliest convenience.

Comments may be submitted to Mary Ann Cook, MC 206, Air Quality Division, Chief Engineer's Office, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087, or faxed to (512) 239-5687. Electronic comments are preferable, and may be submitted via the TCEQ "eComments system", accessible from the agency website at <http://www5.tceq.state.tx.us/rules/ecommments/>. File size restrictions may apply to comments being submitted. All comments pertaining to this **Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration SIP Revision for the 1997 eight-hour ozone standard (For only the Contingency Measure Plan and Discrete Emissions Reduction Credit (DERC) Program)**, proposed for the DFW area should reference **Project Number 2008-016-SIP-NR**. The period for TCEQ to take comments on this SIP revision will close on September 12, 2008. Copies of this

proposed revision may be obtained from the commission's web site, at <http://www.tceq.state.tx.us/implementation/air/sip/Hottop>. For further information, please contact Mary Ann Cook at (512) 239-6739.

1.4. SOCIAL AND ECONOMIC CONSIDERATIONS

For a detailed explanation of the social and economic issues involved with any measure included in this SIP revision, please refer to the preamble preceding applicable proposed rule package(s) accompanying this SIP.

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. PHOTOCHEMICAL MODELING

(NO CHANGE SINCE MAY 2007 REVISION)

CHAPTER 3. CORROBORATIVE ANALYSIS

3.1. - 3.10.

(NO CHANGE SINCE MAY 2007 REVISION)

3.11. DISCRETE EMISSION REDUCTION CREDITS (DERCS) EMISSION INVENTORY ADJUSTMENT

In photochemical modeling conducted for development of the Dallas-Fort Worth (DFW) Eight-Hour Ozone Attainment Demonstration (AD) State Implementation Plan (SIP) Revision for the 1997 eight-hour ozone standard, 22.0 tpd of nitrogen oxides (NO_x) emissions from the use of banked Emission Reduction Credits (ERCs) and Discrete Emission Reduction Credits (DERCs) was predicted for the 2009 future year emissions inventory estimate. After the DFW AD SIP was submitted to the U.S. Environmental Protection Agency (EPA) on June 15, 2007, the 22.0 tpd NO_x emissions projection, which was based on a growth rate of 45 percent for non-Electric Generating Unit (non-EGU) point source emissions for 2009, was determined to be an overly conservative projection. That 2009 future year emissions inventory projection, which was used in the DFW AD SIP photochemical modeling, estimated all of the 22.0 tpd of NO_x emissions currently available in the banked ERC and DERC registries would be used in 2009. Out of that 22.0 tpd of NO_x emissions projection from banked credit use in 2009, most (20.4 tpd NO_x) were attributed to DERC usage. However, since the DERC program began in 1993, multiple “intent to use” applications have been filed, but no DERCs have ever been used in the DFW Eight-Hour Ozone Nonattainment Area (DFW area) for compliance with state emission limits for attainment demonstration.

An estimated 3.2 tpd of NO_x emissions resulting from DERC use has been determined to be a much more realistic projection for the 2009 future case emissions inventory. Several potential scenarios were contemplated in TCEQ’s process to update the NO_x emissions projection for DERC usage in the DFW area. The revised 3.2 tpd NO_x emissions estimate attributable to DERCs results in a 17.2 tpd NO_x emissions reduction in the 2009 future year inventory prediction. This Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration SIP Revision for the 1997 eight-hour ozone standard (For only the Contingency Measure Plan and Discrete Emissions Reduction Credit (DERC) Program) incorporates the revised 3.2 tpd NO_x emissions estimate for DERCs.

A 2009 future case inventory projection of 3.2 tpd NO_x emissions from DERCs is a more realistic estimate, allowing an adjustment to be made for the projected 2009 future inventory for NO_x by 17.2 tpd. A model-based analysis using TCEQ point source sensitivity tests indicates that the removal of 17.2 tpd of NO_x from the projected inventory should reduce ozone concentrations by 0.387 ppb at the Frisco monitor and by 0.315 ppb at the Denton monitor. An average reduction of 0.463 ppb ozone across all of the monitors is predicted. These estimated ozone reductions are based upon response factors from an existing TCEQ sensitivity test that reduced point source NO_x emissions by 15 tpd distributed across the DFW area (4 tons from low level points and 11 tons from elevated point sources). In the DFW AD SIP, the projected emissions from DERC usage were assigned to non-EGU and non-cement kiln point sources distributed across the nine-county area. Therefore, the 17.2 tpd adjustment to point source emissions is supported by the sensitivity analysis assumption used to estimate the results at all monitor sites.

CHAPTER 4. REQUIRED CONTROL STRATEGY ELEMENTS

4.1. OVERVIEW OF EXISTING CONTROL STRATEGIES

(NO CHANGE SINCE MAY 2007 REVISION)

4.2. NO_x AND VOC CONTROL MEASURES

(NO CHANGE SINCE MAY 2007 REVISION)

4.2.1. – 4.2.5.

(NO CHANGE SINCE MAY 2007 REVISION)

4.2.6. Additional Measures

4.2.6.1. – 4.2.6.7

(NO CHANGE SINCE MAY 2007 REVISION)

4.2.6.8. Discrete Emissions Reduction Credits (DERCs) Flow Control Enforceable Mechanism

The U. S. Environmental Protection Agency (EPA) informed the TCEQ that a conditional approval of the Dallas-Fort Worth (DFW) Eight-Hour Ozone Attainment Demonstration (AD) State Implementation Plan (SIP) Revision for the 1997 eight-hour ozone standard, of DFW AD SIP, would require the TCEQ's adoption of an enforceable flow control mechanism to limit the use of DERCs in 2009 and in subsequent years where DERC use could impact the maintenance and attainment of the National Ambient Air Quality Standard (NAAQS.)

Rulemaking proposed concurrently with this proposed DFW SIP revision includes revisions to Title 30 Texas Administration Code (TAC) §101.376 *Discrete Emission Credit Use* that define a flow-control strategy for DERC usage in the DFW Eight-Hour Ozone Nonattainment Area (DFW Area), as requested by the EPA. The proposed rulemaking revises 30 TAC Chapter 101, Subchapter H, Division 4, to provide the TCEQ executive director authority to determine DERC availability for use in any calendar year consistent with the level relied upon in the applicable eight-hour ozone attainment demonstration for the DFW nonattainment area. The addition of §101.376(f) further allows the executive director to apportion allowable DERC usage in the DFW area when the total use of discrete emissions credits applied for exceeds the DERC use allowable for the DFW area, as determined by an annual review. Proposed new §101.379(c) specifies that the executive director shall complete an annual review for each calendar year that will determine DERC availability consistent with the attainment and maintenance of the NAAQS in the DFW area.

Flow Control Limit for 2009

For the 2009 attainment period, the annual flow control limit for DERC use will not interfere with the current DFW AD SIP. This Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration SIP Revision for the 1997 eight-hour ozone standard (For only the Contingency Measure Plan and Discrete Emissions Reduction Credit (DERC) Program) incorporates the revised 3.2 tpd nitrogen oxides (NO_x) emissions estimate, as reflected in the model-based analysis described in the April 23, 2008 letter from the TCEQ to the EPA.

The changes related to the use of DERCs within the DFW area that are proposed by this SIP revision and the associated rules will ensure that the use of DERCs will not interfere with attainment and maintenance of the NAAQS set by the EPA under 42 USC, §7409. This flow control mechanism is developed in accordance with the EPA Economic Incentive Program Guidance document. Additional information about the proposed DERC limitation rule can be found in the preamble to the 30 TAC Chapter 101 rulemaking (Rule Project No. 2008-011-101-EN).

4.2.7

(NO CHANGE SINCE MAY 2007 REVISION)

4.3. - 4.5

(NO CHANGES SINCE MAY 2007 REVISION)

4.6 CONTINGENCY MEASURES

This supplemental DFW SIP revision demonstrates a fulfilled contingency requirement by identifying measures to be used in the event that the DFW nonattainment area does not attain the Eight-Hour Ozone NAAQS by the attainment date. The measures identified to meet a required three percent emissions reduction include the volatile organic compounds (VOC) contingency measures identified in the DFW AD SIP. In addition, a portion of the emission reductions from on-road fleet turnover for the period 2009-2010 are identified as a contingency measure.

The contingency measures identified for the DFW one-hour ozone attainment demonstration were never triggered, and remain in place for the current DFW eight-hour ozone attainment demonstration. Those three measures are the TCEQ VOC rules on (1) Offset Lithographic Printing §115.449(c), (2) Degassing or Cleaning of Stationary, Marine, and Transport Vessels §115.549(b), and (3) Petroleum Dry Cleaning §115.559(a), as described below. The three TCEQ area source VOC measures described cumulatively provide a total 1.80 tpd VOC emissions reduction, as shown in Table 4-1: *Area Source VOC Contingency Measures*.

- A VOC reduction of 0.24 tpd will be made through offset lithographic printing controls: In Collin, Dallas, Denton, and Tarrant Counties, all offset lithographic printing presses on a property that, when uncontrolled, emit a combined weight of VOC less than 50 tons per calendar year, must be in compliance with §§115.442, 115.443, 115.445, and 115.446 of this title as soon as practicable, but no later than one year after the commission publishes notification in the *Texas Register* of its determination that this contingency rule is necessary as a result of failure to attain the NAAQS for ozone by the attainment deadline or failure to demonstrate reasonable further progress as set forth in the 1990 Amendments to the Federal Clean Air Act (FCAA), §172(c)(9).
- A VOC reduction of 0.18 tpd will be made through controls on the degassing or cleaning process of stationary, marine, and transport vessels: All affected persons in Collin, Dallas, Denton, and Tarrant Counties shall be in compliance with this division as soon as practicable, but no later than one year, after the commission publishes notification in the *Texas Register* of its determination that this contingency rule is necessary as a result of failure to attain the NAAQS for ozone by the attainment deadline or failure to

demonstrate reasonable further progress as set forth in the 1990 Amendments to the FCAA, §172(c)(9).

- A VOC reduction of 1.38 tpd will be made through controls on petroleum-based dry cleaning businesses: All affected petroleum solvent dry cleaning facilities in Collin, Dallas, Denton, and Tarrant Counties shall be in compliance with this division (relating to Petroleum Dry Cleaning Systems) as soon as practicable, but no later than one year, after the commission publishes notification in the *Texas Register* of its determination that this contingency rule is necessary as a result of failure to attain the NAAQS for ozone by the attainment deadline or failure to demonstrate reasonable further progress as set forth in the 1990 Amendments to FCAA, §172(c)(9).

Table 4-1: Area Source VOC Contingency Measures

<i>Area Source VOC Contingency Measure Reductions</i>	<i>Weekday Emissions (tons per day)</i>	
	<i>NO_x</i>	<i>VOC</i>
Offset Lithographic Printing	0.00	0.24
Degassing or Cleaning of Stationary, Marine, and Transport Vessels	0.00	0.18
Petroleum Dry Cleaning	0.00	1.38
Total	0.00	1.80

To fulfill the remaining portion of the three percent contingency plan requirement after application of reductions from the three VOC measures named, the TCEQ identifies a portion of the emissions reduction expected from 2009-2010 on-road fleet turnover. Fleet turnover for the 2009-2010 period is predicted to result in approximately 20.78 tpd of NO_x reductions and 4.86 tpd of VOC reductions. However, not all of the emission reductions resulting from 2009-2010 fleet turnover are needed to meet the three percent contingency requirement for the DFW area. Only the portion of fleet turnover emission reductions needed to supplement the previous VOC measures identified are committed to fulfill the remaining contingency requirement for the DFW area. Emission reductions from 2009-2010 fleet turnover that are surplus to the NO_x and VOC reductions committed to satisfy the contingency requirement in this supplemental DFW SIP revision are reserved for future SIP-related purposes, such as application toward DERC allowances for the DFW area.

Appendix B: *Emissions Inventory Development* of the DFW AD SIP references 754.56 tpd of NO_x and 520.08 tpd of VOC in the 1999 base case emissions from all anthropogenic sources in the DFW nine-county nonattainment area. Table 4-2: *Contingency Analysis using 1999 DFW Base Year Emissions Inventory* of this SIP revision provides details about the 1999 emissions inventory on which the three percent contingency requirement is based, and reveals the calculations performed in the analysis. The contingency analysis identifies the ratios and the tons per day of emissions reductions committed toward meeting the three percent requirement for 2010. VOC emission reductions from the area source contingency measures, together with VOC emission reductions resulting from 2009-2010 fleet turnover provide a 1.28 percent VOC reduction based on the 1999 inventory. NO_x emission reductions from 2009-2010 fleet turnover alone provide a 2.75 percent NO_x reduction from that 1999 base year inventory. However, once the 1.28 percent VOC reduction is applied toward the contingency requirement, only a 1.72 percent reduction in NO_x emissions is needed to meet the remaining contingency requirement. The 1.28 percent VOC emissions reduction of 6.66 tpd and the 1.72 percent NO_x emissions reductions of 12.98 tpd together fulfill the three percent contingency measure requirement for the DFW Eight-Hour Ozone Attainment Demonstration.

Table 4-2: Contingency Analysis using 1999 DFW Base Year Emissions Inventory

Based on 1999 Base Year Emissions Inventory <i>(more details are available in Appendix B of the 2007 DFW AD SIP)</i>	Weekday Emissions (tpd)		
	NO _x	VOC	
1999 On-Road Emissions	438.86	183.58	
1999 Non-Road Emissions	148.90	69.50	
1999 Point Emissions	131.80	37.70	
1999 Area Emissions	35.00	229.30	
<i>1999 Nine-County DFW Total Emissions Inventory</i>	<i>754.56</i>	<i>520.08</i>	
Reductions from Area Source VOC Contingency Measures	0.00	1.80	
Reductions from 2009-2010 On-Road Fleet Turnover	20.78	4.86	
Total Reductions available for Contingency use	20.78	6.66	
Ratio of Reductions available to 1999 Base Year Inventory	2.75%	1.28%	
Ratio of Reductions to Inventory needed for Contingency	1.72%	1.28%	3.00%*
Emission Reductions committed to meet three percent Contingency requirement	12.98	6.66	
Ratio of Reductions to Inventory available after Contingency requirement for 2010 is met	1.03%	0.00%	
Surplus Reductions available for future SIP use, including DERC allowances	7.80	0.00	

*Contingency requirement met [(VOC Reductions / VOC EI) + (NO_x Reductions / NO_x EI) ≥ three percent]

The contingency analysis provided in Table 4-2: *Contingency Analysis using 1999 DFW Base Year Emissions Inventory* also reveals that the 1.03 percent NO_x emissions reduction from 2009-2010 fleet turnover is surplus and not needed to satisfy the three percent contingency requirement for 2010. That 1.03 percent surplus, or 7.80 tpd NO_x, is available for application toward DERC allowances for the DFW nonattainment area for 2010, as discussed in Chapter 4 of this SIP revision, or may be used for other SIP purposes to be determined in the future.