

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

**AGENDA ITEM REQUEST**

for Proposed State Implementation Plan Revision

**AGENDA REQUESTED:** September 23, 2009

**DATE OF REQUEST:** September 4, 2009

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

**CAPTION:** Docket No. 2009-1127-SIP. Consideration for publication of, and hearing on a proposed revision to the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution for the Dallas-Fort Worth (DFW) 1997 Eight-Hour Ozone Nonattainment Area (Collin, Dallas, Denton, Ellis, Kaufman, Johnson, Parker, Rockwall, and Tarrant Counties): the DFW Reasonably Available Control Technology (RACT) Update, 30 Texas Administrative Code (TAC) Chapter 117 Rule Revision Noninterference Demonstration, and Attainment Demonstration Contingency Plan State Implementation Plan (SIP) Revision.

This proposed SIP revision contains Federal Clean Air Act required SIP elements, including: an update to the Volatile Organic Compounds RACT element of the DFW 1997 Eight-Hour Ozone Attainment Demonstration SIP Revision; a demonstration of noninterference to attainment of the 1997 eight-hour ozone standard from a previously proposed 30 TAC Chapter 117 rule revision; and a modified failure-to-attain contingency plan. The proposed revision also incorporates a concurrently proposed rule revision in 30 TAC Chapter 115 regarding offset lithographic printing contingency measures. (Mary Ann P. Cook, Terry Salem) (Rule Project No. 2009-021-SIP-NR)



Chief Engineer



Division Director



Agenda Coordinator

Copy to CCC Secretary? NO X YES

# Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

**To:** Commissioners **Date:** September 4, 2009

**Thru:** LaDonna Castañuela, Chief Clerk  
Mark R. Vickery, P.G., Executive Director

**From:** Susana M. Hildebrand, P.E., Chief Engineer 9/8, 4, 09

**Docket No.:** 2009-1127-SIP

**Subject:** Commission Approval to Propose Changes to the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution Applicable to the Dallas-Fort Worth (DFW) 1997 Eight-hour Ozone Standard Nonattainment Area  
Rule Project No. 2009-021-SIP-NR (DFW Reasonably Available Control Technology (RACT) Update, 30 Texas Administrative Code (TAC) Chapter 117 Rule Revision Noninterference Demonstration, and Attainment Demonstration Contingency Plan State Implementation Plan (SIP) Revision)

## Reasons for the SIP revision:

This SIP revision proposes changes to the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution applicable to the DFW 1997 eight-hour ozone standard nonattainment area (Collin, Dallas, Denton, Ellis, Kaufman, Johnson, Parker, Rockwall, and Tarrant Counties). It proposes to integrate several actions required by the United States Environmental Protection Agency (EPA) into the DFW 1997 eight-hour ozone attainment demonstration and the Texas SIP, upon adoption by the Texas Commission on Environmental Quality (TCEQ).

This DFW RACT Update, Chapter 117 Rule Revision Noninterference Demonstration, and Attainment Demonstration Contingency Plan SIP Revision (DFW RACT, Rule, and Contingency SIP Revision) proposes an update to DFW VOC RACT determinations. This SIP revision also proposes a necessary modification to the DFW failure-to-attain contingency plan. Information regarding a concurrently proposed 30 TAC Chapter 115 rule revision is included. In addition, information regarding a previously proposed 30 TAC Chapter 117 rule revision and a demonstration of noninterference of that rule to the SIP are provided in this SIP revision.

## Under what authority are we proposing these changes?

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

The Federal Clean Air Act (FCAA), 42 United States Code (USC), §§ 7401, *et seq.*, requires states to submit SIP revisions that specify the manner in which the National Ambient Air Quality Standards (NAAQS) will be attained and maintained within each air quality control region of the state. Phase 1 of the EPA's implementation rule for the 1997 eight-hour ozone standard, published in the April 30, 2004, issue of the *Federal Register* (69 FR 23951), outlines classifications, attainment dates, and anti-backsliding principles. Phase 2 of the EPA's implementation rule for the 1997 eight-hour standard, published in the November 29, 2005, issue of the *Federal Register* (70 FR 71612), outlines the requirements for state plans.

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

Under the 1997 eight-hour ozone standard, the DFW nine-county nonattainment area is required to meet the mandates of the FCAA under §§ 172(c)(1), 182(b)(2) and 182(f). According to the EPA's Final Rule to Implement the Eight-Hour Ozone NAAQS (40 Code of Federal Regulations (CFR) § 51.912, November 29, 2005), the area must submit, as a revision to the SIP, a demonstration that current rules fulfill the 1997 eight-hour RACT requirements for all Control Techniques Guidelines (CTG) categories.

The FCAA (42 USC §§ 7502(c)(9) and 7511a(c)(9)) and the EPA final Phase 2 1997 eight-hour ozone implementation rule require that the SIPs for all 1997 eight-hour ozone nonattainment areas include contingency measures as additional controls to further reduce emissions in the event an area fails to attain by its attainment date. The contingency measures identified for implementation must provide a three percent emissions reduction from the base year emissions inventory.

**Are there any legal deadlines by which this SIP revision must be proposed, adopted, or effective?**

The EPA requires the state to submit a SIP revision addressing the CTG documents within one year of those published in the *Federal Register*.

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

- The DFW 1997 Eight-Hour Ozone AD SIP Revision did not address the 2006 and 2007 CTG documents due to time constraints. The 2008 CTG documents published after the AD SIP revision submittal to the EPA. This SIP revision addresses the CTG documents published by the EPA in the *Federal Register* from 2006 through 2008 and provides updated VOC RACT determinations for the DFW area.
- The control imposed by the Chapter 115 offset lithographic printing rule currently identified as a DFW contingency measure has been determined to be RACT for the area, resulting in a revision of the rule proposed concurrently with this SIP revision. Adoption of the rule revision would leave it unusable for the DFW contingency plan. This SIP revision removes the rule as a contingency measure and identifies replacement emission reductions from mobile source to maintain credibility of the failure-to-attain contingency plan.
- Commission adoption of the Chapter 115 rule revision would require removal of the offset lithographic printing rule measure from the contingency plan. Removal of the measure and replacement with a portion of fleet turnover emission reductions predicted for 2009 through 2010 is addressed in the modified failure-to-attain contingency plan proposed in this SIP revision.
- A proposed rule revision for Chapter 117 could result in a small increase (0.1 tons per day) to nitrogen oxide (NO<sub>x</sub>) emissions from stationary sources. This SIP revision identifies replacement reductions from 2009 through 2010 mobile source fleet turnover to offset the increase and demonstrate noninterference of the rule revision to the area's attainment of the 1997 eight-hour ozone standard.

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

The DFW RACT, Rule, and Contingency SIP Revision would become a component of the DFW area's 1997 eight-hour ozone attainment demonstration upon adoption by the commission. Adoption of this SIP revision would fulfill the following requirements:

- Adopted RACT analysis determinations must be submitted to the EPA via SIP revision.
- Adopted state rules and revisions must be incorporated into the SIP for applicable areas.
- Any relaxation of an area's control strategy for the attainment demonstration must be addressed with a demonstration of noninterference. Areas with an approved attainment demonstration can demonstrate noninterference through substitution of a control measure with equivalent or greater associated emission reductions. A demonstration of noninterference must be submitted to the EPA in the form of a SIP revision.

- Approvable failure-to-attain contingency plans must identify measures that upon implementation will provide emission reductions equivalent or greater than three percent of the adjusted base year anthropogenic emissions inventory. If measures are removed from a contingency plan and reductions fall below the required three percent, measures must be replaced to provide equivalent or greater "backfill" reductions.

**Other important background or historical information:**

The nine-county DFW nonattainment area is required to attain the 1997 eight-hour ozone NAAQS by June 15, 2010. The DFW 1997 eight-hour ozone attainment demonstration demonstrates attainment of that standard for the area by the deadline. The attainment demonstration consists of several SIP revisions and supplemental information. The DFW 1997 Eight-Hour Ozone SIP Revision was submitted to the EPA in May 2007. In response to the EPA's requests for clarification of that SIP revision (also referred to as the May 2007 DFW AD SIP Revision), the state submitted additional documentation to the EPA in an April 2008 supplemental packet. The EPA then asked the state to revise the SIP further, which led to a DFW AD SIP Revision for the 1997 Eight-Hour Ozone Standard (Contingency Measures Plan) adopted by the commission in November 2008, and a DFW AD SIP Revision for the 1997 Eight-Hour Ozone Standard (Discrete Emission Reduction Credits (DERC) Program) adopted by the commission in December 2008.

The EPA published in the *Federal Register* a final conditional approval of the DFW area's 1997 eight-hour ozone attainment demonstration, effective February 13, 2009. Final full approval of the attainment demonstration is pending the EPA's approval of the DFW AD SIP DERC Program Revision and the associated DERC rule revision.

Included in the EPA's final conditional approval document was a final full approval of the DFW failure-to-attain contingency plan, which in accordance with the FCAA, identifies measures for implementation in the event the DFW area fails to meet the 1997 eight-hour ozone standard by June 15, 2010. The EPA-approved contingency plan identifies a portion of the emission reductions to result from 2009 through 2010 mobile source fleet turnover, along with reductions from the three state volatile organic compound (VOC) rules, to provide the required three percent emissions reduction from the area's 1999 adjusted base year emissions inventory.

A portion of the surplus emission reductions from 2009 through 2010 mobile source fleet turnover will remain uncommitted (not already credited towards the attainment demonstration or contingency plan) upon adoption of this SIP revision. This SIP revision stipulates that these uncommitted emissions reductions may be used for any future SIP purpose(s). In the event the Texas Commission on Environmental Quality (TCEQ) determines that surplus nitrogen oxides (NO<sub>x</sub>) reductions from the fleet turnover will be used for DERC Program allocations, all previous commitments adopted by the commission regarding the use of the fleet turnover reductions will be reflected in the executive director's DERC-limit calculations for 2010. Only the uncommitted portion of fleet-turnover reductions will be available for DERC use.

**Scope of the SIP revision:**

This DFW RACT, Rule, and Contingency SIP Revision proposes several revisions to the DFW 1997 eight-hour ozone attainment demonstration. As required by the FCAA, a RACT update for the DFW area that documents the state's analysis of 11 CTG documents issued 2006 through 2008 by the EPA is proposed. In addition to the RACT update, this SIP revision proposes to incorporate Chapter 115 and Chapter 117 rule revision proposals into the Texas SIP. The proposed Chapter 115 rulemaking, which would revise offset lithographic printing emission source rules, resulted from the state's RACT determination regarding offset lithographic printing sources upon its analysis of the CTG document for that emission source category. The proposed Chapter 117 rulemaking associated with this SIP revision responds to a petition filed by the Elk Corporation of Texas and approved by the commission in February 2009. That rulemaking would expand a

specific and limited exemption from Chapter 117 stationary source rules. Finally, this DFW RACT, Rule, and Contingency SIP Revision proposes a modified contingency plan for the DFW 1997 eight-hour ozone attainment demonstration resulting from removal and replacement of the offset lithographic printing rule contingency measure. Upon commission adoption of a revision to the offset lithographic printing rule that is being concurrently proposed for RACT purposes, that rule would no longer be usable for a contingency measure.

The DFW RACT, Rule, and Contingency SIP Revision proposal will demonstrate that the Chapter 117 rule revision will not interfere with the DFW 1997 eight-hour ozone attainment demonstration. NO<sub>x</sub> emission reductions from the mobile source fleet turnover to occur in the 2009 through 2010 period are identified to replace emission reductions that would not materialize if the exemption is expanded as proposed in the Chapter 117 rulemaking. Because replacing the NO<sub>x</sub> reduction in the control strategy will maintain the integrity of the attainment demonstration, this SIP revision demonstrates that the adoption of the Chapter 117 rule revision will not interfere with the DFW 1997 eight-hour ozone attainment demonstration.

Although the EPA has fully approved the DFW failure-to-attain contingency plan, this SIP revision proposes a modification to that plan. Removal of the offset lithographic printing rule contingency measure and substitution of that measure in the contingency plan is proposed. The analysis for the RACT update included in this SIP revision has led to revisions to the Chapter 115 rule proposed for RACT purposes, and adoption of the revision would leave the rule for those sources unusable as a contingency measure. A reallocation to the contingency plan of reductions predicted to result from the 2009 through 2010 mobile source fleet turnover is proposed. The modified contingency plan would contain an increased proportion of fleet turnover reductions to make up the difference from removal of the offset lithographic printing rule contingency measure. Because this SIP revision identifies replacement reductions, removal of the measure would not adversely affect the DFW area's attainment demonstration or contingency plan. This proposal identifies the reallocated portion of fleet turnover emission reductions, along with two state VOC rule measures previously identified, as the contingency plan measures available for implementation if the DFW area does not meet its attainment requirements. As required by the FCAA, the measures identified in the proposed modified contingency plan will continue to provide the required three percent emissions reduction from the 1999 adjusted base year emissions inventory used to develop the DFW 1997 Eight-Hour Ozone AD SIP Revision.

**Changes required by federal rule:**

The state is required to submit a RACT analysis and any applicable new rules and rule revisions in the form of a SIP revision to the EPA. In addition, because the proposed Chapter 117 rule revision would result in a possible emissions increase for the area, the state is required to demonstrate that the rule revision would not negatively impact the area's demonstration of attainment. Finally, the state is required to replace the measure dropped from the DFW failure-to-attain contingency plan and to "backfill" those emission reductions to ensure that the contingency measures identified would upon implementation provide the required three percent reduction from the area's base year emissions inventory within a year of the EPA notification of failure to attain the NAAQS.

**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?**

The affected regulated community would be those associated with the proposed rulemakings that are part of this SIP revision. For further information, see the executive summaries for those rulemakings, as follows:

- Proposed on August 12, 2009, Rule Project No. 2009-023-117-EN, regarding NO<sub>x</sub> emissions for Stationary Sources, Chapter 117 rule exemption expansion
- Proposed concurrently with this SIP revision, Rule Project No. 2008-019-115-EN, regarding VOC emissions from offset lithographic printing

**Does it create a group of affected persons who were not affected previously?** No previously unaffected group of persons would be affected by this SIP revision. Information regarding persons affected by the previously referenced rulemakings associated with this SIP revision is included in the executive summaries and preamble of those proposed rulemakings.

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

There will be no fiscal impact from this SIP revision. Fiscal impact information on the proposed Chapter 115 and Chapter 117 rulemakings associated with this SIP revision is included in the executive summaries and preambles for those proposed rulemakings.

**Impact on the public:**

**Who will be affected?** This SIP would have no effect on the general public. Residents of the DFW and surrounding areas would benefit from reduced ground-level ozone concentrations due to reduced emissions of ozone precursors from the associated proposed Chapter 115 rule revision. No increase to ground-level ozone concentrations should result from the small amount of increased emissions of NO<sub>x</sub> from the associated proposed Chapter 117 rule revision.

**Does it create a group of affected persons who were not affected previously? No How? N/A**

**Will there be a fiscal impact? No**

**Impact on agency programs:**

This SIP revision would have no effect on agency programs. Any potential impacts on agency programs from the previously referenced rulemakings associated with this SIP revision are described in the executive summaries and preambles for the proposed rulemakings.

**Stakeholder meetings:**

**Have any stakeholder meetings been held? No**

**With whom? N/A**

**What were the general sentiments? N/A**

**Were any changes made in response to stakeholder concerns? N/A**

**Policy issues:**

**What policy issues are affected?** None

**Are any policies that are not currently based on rule being made into a rule?** No

**What are the consequences if this SIP revision is not approved to go forward?** The FCAA requires states to address CTG documents to make RACT determinations of the recommendations made by the EPA in those documents. A RACT analysis submittal to the EPA must be in the form of a SIP revision. Not meeting FCAA requirements can result in a Federal Implementation Plan and/or federal sanctions.

**Are there alternatives?** No.

**Potentially controversial matters:**

None

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

**Anticipated proposal date:** September 23, 2009

**Anticipated *Texas Register* hearing notice date:** October 9, 2009

**Public hearing dates:** There will be a public hearing in Austin on October 29, 2009, at 1:00 p.m., and one in Fort Worth on November 2, 2009, at 2:00 p.m.

**Public comment period:** October 9 through November 9, 2009

**Anticipated adoption date:** March 10, 2009

**Agency contacts:**

Mary Ann P. Cook, SIP Project Manager, 239-6739, Air Quality Division  
Terry Salem, Staff Attorney, 239-0469

Attachments

cc: Chief Clerk, 5 copies  
Executive Director's Office  
Chief Engineer  
Daniel Womack  
Kevin Patteson  
Betsy Bird  
Office of General Counsel  
Mary Ann Cook

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

DALLAS/FORT WORTH 1997 EIGHT-HOUR OZONE NONATTAINMENT AREA



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

**Dallas-Fort Worth Reasonably Available Control Technology Update,  
30 Texas Administrative Code Chapter 117 Rule Revision Noninterference Demonstration,  
and Attainment Demonstration Contingency Plan State Implementation Plan Revision**

TCEQ PROJECT NO. 2009-021-SIP-NR

Proposed September 23, 2009

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## EXECUTIVE SUMMARY

This Dallas-Fort Worth (DFW) Reasonably Available Control Technology (RACT) Update, 30 Texas Administrative Code (TAC) Chapter 117 Rule Revision Noninterference Demonstration, and Attainment Demonstration Contingency Plan State Implementation Plan (SIP) Revision (DFW RACT, Rule, and Contingency SIP Revision) proposes changes to the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution. This SIP revision proposes to integrate several actions applicable to the DFW 1997 eight-hour ozone standard nonattainment area (Dallas, Denton, Tarrant, Collin, Parker, Johnson, Ellis, Kaufman, and Rockwall Counties) into the DFW 1997 eight-hour ozone attainment demonstration and the Texas SIP upon adoption by the Texas Commission on Environmental Quality (TCEQ).

This DFW RACT, Rule, and Contingency SIP Revision proposes several revisions to the DFW 1997 eight-hour ozone attainment demonstration. As required by the 1990 Federal Clean Air Act (FCAA) Amendments under §§ 172(c)(1), 182(b)(2) and 182(f), an updated RACT determination for the DFW area that documents the state's RACT analysis of 11 control technique guidelines (CTG) documents issued between 2006 and 2008 by the EPA is proposed. In addition to the RACT update, this SIP revision proposes to incorporate the associated 30 TAC Chapter 115 and 30 TAC Chapter 117 rule revision proposals into the Texas SIP. The Chapter 115 rulemaking proposed concurrently with this SIP revision would revise rules governing offset lithographic printing emission sources. That rulemaking resulted from the state's RACT determination regarding offset lithographic printing sources upon its analysis of the CTG document for that emission source category. The Chapter 117 rulemaking proposed August 13, 2009, addresses a petition filed by the Elk Corporation of Texas and approved by the commission in February 2009. That rulemaking proposes to expand a specific and limited exemption from Chapter 117 stationary source rules. Finally, this DFW RACT, Rule, and Contingency SIP Revision proposes modifications to the DFW attainment demonstration contingency plan. This revision proposes removal and replacement of a Chapter 115 rule contingency measure because the rule is being revised for RACT purposes.

This DFW RACT, Rule, and Contingency SIP Revision demonstrates that the Chapter 117 rule revision will not interfere with the DFW 1997 eight-hour ozone attainment demonstration. Nitrogen oxides (NO<sub>x</sub>) emission reductions are identified to replace reductions that would no longer be available for the area's ozone control strategy upon adoption of the Chapter 117 rule revision. Replacement reductions from fleet turnover (occurring 2009 through 2010) are allocated for use in the attainment demonstration to replace the NO<sub>x</sub> reduction that would not materialize if the exemption is expanded as proposed in the Chapter 117 rulemaking. Because replacing the NO<sub>x</sub> reduction in the control strategy will maintain the integrity of the attainment demonstration, the adoption of the Chapter 117 rule revision will not interfere with the DFW 1997 eight-hour ozone attainment demonstration.

As required by the FCAA, the measures identified in the proposed contingency plan will continue to meet the three percent emissions reduction requirement from the 1999 adjusted base year emissions inventory used to develop the May 2007 DFW AD SIP Revision. This revision removes the offset lithographic printing rule contingency measure, because the RACT update analysis revealed the need for a proposed rule revision applicable to those sources. This revision proposes a reallocation to the contingency plan of reductions predicted to result from the 2009 through 2010 mobile source fleet turnover. The proposed contingency plan contains an increased portion of the fleet turnover reductions to make up the difference for reductions lost to the area's contingency plan upon removal of the offset lithographic printing contingency measure. The

removal of the offset lithographic printing rule contingency measure would not adversely affect the DFW area's demonstration of attainment, since replacement reductions are identified. In addition to the fleet turnover, two previously identified contingency measures will remain in the plan. Those two measures are the state VOC rules, applicable in Collin, Dallas, Denton, and Tarrant Counties, to the degassing or cleaning processes of stationary, marine, and transport vessels, and to petroleum-based dry cleaning businesses.

## 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, 2007, and 2009. 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 section 5.014 of the Texas Water Code, changing the expiration date of the TCEQ to September 1, 2011, unless continued in existence by the Texas Sunset Act.

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 & 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)

Subchapter M: Environmental Permitting Procedures (§ 5.558 only)

**Chapter 7: Enforcement**

Subchapter A: General Provisions (§§ 7.001, 7.002, 7.0025, 7.004, and 7.005 only)

Subchapter B: Corrective Action and Injunctive Relief (§ 7.032 only)

Subchapter C: Administrative Penalties

Subchapter D: Civil Penalties (except § 7.109)

Subchapter E: Criminal Offenses and Penalties: §§ 7.177, 7.179-7.183

Rules

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

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

May 2, 2002

Chapter 19: Electronic Reporting

March 1, 2007

DFW RACT, Rule, and Contingency SIP Revision

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

## 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 Emission 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  
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 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

## IDENTIFICATION OF REFERENCED DOCUMENTS

Throughout this document, references are made to this SIP revision, to other SIP revisions, and to composites of SIP revisions and SIP-related documents. In order to clarify and more clearly define the references contained in this document, the list below identifies and provides additional information for each. The referenced documents may be directly accessed from the links provided.

**May 2007 DFW AD SIP Revision**, and **DFW 1997 Eight-Hour Ozone AD SIP Revision**, both refer to:

The [Dallas-Fort Worth \(DFW\) Ozone Nonattainment Area Attainment Demonstration \(AD\) State Implementation Plan \(SIP\) Revision for the 1997 Eight-Hour Ozone Standard](#) (TCEQ Project No. 2006-013-SIP-NR, adopted May 2007)

**April 2008 supplement** to the DFW 1997 Eight-Hour Ozone AD SIP Revision refers to:

A [TCEQ letter to the EPA of April 23, 2008](#), that provides clarification and supplemental information regarding the May 2007 DFW AD SIP Revision

**Related document:** A [March 7, 2008, letter from the EPA to the TCEQ](#) requesting supplemental information for clarification of the May 2007 DFW AD SIP Revision

**DFW AD SIP Contingency Plan Revision** refers to:

The [DFW AD SIP Revision for the 1997 Eight-Hour Ozone Standard \(Contingency Measures Plan\)](#) (TCEQ Project No. 2008-016-SIP-NR, adopted November 2008)

**DFW AD SIP DERC Program Revision** refers to:

The [DFW AD SIP Revision for the 1997 Eight-Hour Ozone Standard \(Discrete Emission Reduction Credits \(DERC\) Program\)](#) (TCEQ Project No. 2008-016-SIP-NR, adopted December 2008)

**DFW RACT, Rule, and Contingency SIP Revision** refers to this SIP revision document:

The DFW Reasonably Available Control Technology (RACT) Update, 30 Texas Administrative Code (TAC) Chapter 117 Rule Revision Noninterference Demonstration, and Attainment Demonstration Contingency Plan SIP Revision (TCEQ Project No. 2009-021-SIP-NR, proposed September 23, 2009)

**DFW 1997 eight-hour ozone attainment demonstration** refers to:

The Texas SIP revisions relative to the DFW nine-county nonattainment area (Dallas, Denton, Tarrant, Collin, Ellis, Kaufman, Rockwall, Parker, and Johnson Counties) demonstration of attainment for the 1997 eight-hour ozone NAAQS, comprised of the following documents: the May 2007 DFW AD SIP Revision (also called the DFW 1997 Eight-Hour Ozone AD SIP Revision), the April 2008 supplement to the DFW 1997 Eight-Hour Ozone AD SIP Revision, the DFW AD SIP Contingency Plan Revision, the DFW AD SIP DERC Program Revision, and (pending adoption) this DFW RACT, Rule, and Contingency SIP Revision.

**The Texas SIP** refers to:

The SIP revisions that make up the State of Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution

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## CHAPTER 1. BACKGROUND AND INTRODUCTION

### 1.1. GENERAL (Revision)

The “[History of the Texas State Implementation Plan \(SIP\)](#),” a comprehensive overview of SIP revisions submitted to the United States Environmental Protection Agency (EPA) by the State of Texas is viewable on the Texas Commission on Environmental Quality’s (TCEQ) Web Site, at: [http://www.tceq.state.tx.us/assets/public/implementation/air/sip/miscdocs/SIPHistory\\_updated.pdf](http://www.tceq.state.tx.us/assets/public/implementation/air/sip/miscdocs/SIPHistory_updated.pdf).

The [Dallas-Fort Worth \(DFW\) Ozone Nonattainment Area Attainment Demonstration \(AD\) SIP Revision for the 1997 Eight-Hour Ozone Standard](#), also called the DFW 1997 Eight-Hour Ozone AD SIP Revision or May 2007 DFW AD SIP Revision, was adopted by the TCEQ in May 2007 and subsequently submitted to the EPA. The DFW nonattainment counties include Dallas, Denton, Tarrant, Collin, Parker, Johnson, Ellis, Kaufman, and Rockwall. During the EPA’s review of that SIP submittal, a [March 7, 2008, letter from the EPA to the TCEQ](#) requested clarification and additional information applicable to the DFW 1997 Eight-Hour Ozone AD SIP Revision. A [TCEQ letter to the EPA of April 23, 2008](#), (referred to as the April 2008 Supplement to the DFW 1997 Eight-Hour Ozone AD SIP Revision) provided additional information to clarify and support the DFW 1997 Eight-Hour Ozone AD SIP Revision to the EPA.

Upon review of the [April 2008 Supplement](#) to the DFW 1997 Eight-Hour Ozone AD SIP Revision, the EPA requested that the TCEQ implement an enforceable mechanism to limit the use of Discrete Emission Reduction Credits (DERCs) in the nine-county DFW eight-hour ozone nonattainment area, consistent with attainment and maintenance of the 1997 eight-hour ozone National Ambient Air Quality Standard (NAAQS). The EPA asked the state to revise the DFW 1997 Eight-Hour Ozone AD SIP Revision to provide additional emissions reductions sufficient to meet contingency plan mandates of the Federal Clean Air Act (FCAA), and to implement a rule limiting DERC use in the DFW area. In June 2008, the TCEQ informed the EPA of its intention to propose a revised contingency plan as well as DERC SIP and rule revisions to satisfy the EPA requests.

In July 2008, the EPA proposed a conditional approval of the DFW 1997 Eight-Hour Ozone AD SIP Revision. The DFW AD SIP Contingency Plan Revision, adopted by the commission and submitted to the EPA in November 2008, revised the attainment demonstration contingency plan. That revised plan identified four measures to provide reductions in the event the DFW area fails to meet its June 15, 2010, deadline for attainment of the 1997 eight-hour ozone standard. Three previously identified volatile organic compounds (VOC) rule contingency measures (applicable to offset lithographic printing, petroleum-based dry cleaning, and degassing or cleaning processes of stationary, marine, and transport vessels) and the 2009 through 2010 fleet turnover completed the DFW attainment demonstration contingency plan.

Effective February 13, 2009, the EPA published a final conditional approval of the DFW nonattainment area’s 1997 eight-hour ozone attainment demonstration, as submitted in the May 2007 DFW AD SIP Revision and April 2008 Supplement, and as revised in the DFW AD SIP Contingency Plan Revision. Both the contingency plan and the VOC reasonably available control technology (RACT) analysis elements of the attainment demonstration were deemed adequate, and both were given final approval by the EPA. Final full approval of the attainment demonstration was withheld, pending the EPA’s approval of the SIP and rule revisions to provide the enforceable mechanism to limit DERC use in the DFW area consistent with the 1997 eight-hour ozone attainment demonstration.

The commission adopted the DFW AD SIP DERC Program Revision and submitted it to the EPA in December 2008. That SIP revision and the corresponding DERC rule revision together addressed the EPA condition for final approval of the attainment demonstration, limiting DERC use in 2009 and subsequent calendar years consistent with the area's attainment of the 1997 eight-hour ozone standard. Accordingly, the DFW AD SIP DERC Program Revision incorporated the adopted revised DERC rule in 30 Texas Administrative Code (TAC) Chapter 101, and implemented a required annual review by the TCEQ executive director. The annual review of banked credits and requests to use DERCs will be evaluated in light of the attainment demonstration to determine annual DERC use limitations and subsequently apportion DERC allowables for use within the nine-county DFW area. The DFW AD SIP DERC Program Revision and the DERC rule revision are both currently under review by the EPA.

This DFW RACT Update, 30 TAC Chapter 117 Rule Revision Noninterference Demonstration, and Attainment Demonstration Contingency Plan SIP Revision (DFW RACT, Rule, and Contingency SIP Revision) proposes revisions to the DFW 1997 eight-hour ozone attainment demonstration, and as a result, the Texas Air Quality Implementation Plan for the Control of Ozone Air Pollution. Also called the DFW RACT, Rule, and Contingency SIP Revision, this revision proposes several actions. First, it updates the EPA-approved VOC RACT analysis determination element of the attainment demonstration to include the state's analysis of control technique guidelines (CTG) documents issued by the EPA in 2006, 2007, and 2008. Those CTGs were not addressed in the May 2007 DFW AD SIP Revision; however, the Federal Clean Air Act (FCAA) requires states to address these. Documentation of a DFW VOC RACT update analysis and the TCEQ determinations regarding the CTG recommendations is provided in Chapter 4, *Required Control Strategy Elements*, of this SIP revision and in Appendix A: *Dallas-Fort Worth Reasonably Available Control Technology Analysis Update*.

In addition to the RACT update, the DFW RACT, Rule, and Contingency SIP Revision proposes inclusion of associated 30 TAC Chapter 115 and 30 TAC Chapter 117 rule revisions into the Texas SIP. The Chapter 115 rulemaking proposal is based on the RACT analysis update contained in this SIP revision. In its review, staff determined that some of the recommendations made in the EPA's Offset Lithographic and Letterpress Printing CTG represent RACT for the DFW area. Concurrent with this SIP revision, the TCEQ is proposing the Chapter 115 rulemaking (TCEQ Rule Project 2008-019-115-EN) to limit the VOC content of solvents used by offset lithographic printing facilities in the DFW area. The rulemaking proposes to implement the EPA's recommendation to reduce fountain solution and cleaning material VOC contents, and further expands applicability to smaller sources not already subject to the rule. Discussion concerning RACT determinations regarding heatset press and letterpress printing sources is provided in Chapter 4, *Required Control Strategy Elements*, of this SIP revision and in Appendix A: *Dallas-Fort Worth Reasonably Available Control Technology Analysis Update*.

In addition to the VOC RACT update and Chapter 115 rulemaking, this proposed DFW RACT, Rule, and Contingency SIP Revision proposes inclusion of an associated Chapter 117 rule revision, proposed by the commission on August 12, 2009, into the Texas SIP. The Chapter 117 rule proposal responds to a petition for rulemaking filed by the Elk Corporation of Texas and approved by the commission on January 28, 2009. The rulemaking proposes to exempt, from Chapter 117 rules, low temperature drying and curing ovens used in mineral wool-type fiberglass manufacturing and wet-laid, non-woven fiber mat manufacturing where nitrogen-containing resins or other additives are used.

The proposed expansion of a Chapter 117 rule exemption could reduce the predicted nitrogen oxides (NO<sub>x</sub>) reductions from Chapter 117 rules for the DFW area by up to 0.1 tons per day

(tpd). This SIP revision proposes that 0.1 tpd NO<sub>x</sub> portion of uncommitted surplus emission reductions from the 2009 through 2010 vehicle fleet turnover be used as the replacement reduction. The reduction replacement serves to maintain integrity of the DFW 1997 eight-hour ozone attainment demonstration, providing the required demonstration of noninterference proposed in this SIP revision.

As a final action, this DFW RACT, Rule, and Contingency SIP Revision proposes a modified contingency plan for the area's 1997 eight-hour ozone attainment demonstration. Removal of the offset lithographic printing rule contingency measure from the contingency plan is proposed because a revision of that Chapter 115 rule for RACT purposes is also being proposed. This SIP revision proposes to replace the measure with a portion of the emission reductions predicted from vehicle fleet turnover for the one-year period beginning June 15, 2009. The fleet turnover contingency measure would provide VOC reductions sufficient to replace reductions removed from the contingency plan along with the offset lithographic printing measure. The proposed contingency plan retains two state VOC rule contingency measures previously identified for the DFW area applicable to petroleum-based dry cleaning, and degassing or cleaning processes of stationary, marine, and transport vessels. Additional information about these measures and the proposed contingency plan is contained in Chapter 4, *Required Control Strategy Elements*, of this SIP revision. As proposed in this SIP revision, emission reductions to result from the two remaining state VOC rule contingency measures together with the allotment for contingency of emission reductions from the 2009 through 2010 fleet turnover will provide a total three percent emissions reduction to the DFW attainment demonstration's 1999 adjusted base year emissions inventory.

The 0.1 tpd NO<sub>x</sub> reduction replacement in the control strategy will not interfere with the DFW area's attainment demonstration. The 2009 through 2010 vehicle fleet turnover will provide sufficient reductions to offset the possible 0.1 tpd NO<sub>x</sub> emission increase from Chapter 117 rule exemption expansion. The reductions from fleet turnover will also provide the emission reductions needed to replace the offset lithographic printing rule contingency measure. After the reduction replacements are complete, 7.42 tpd NO<sub>x</sub> emission reductions from the 2009 through 2010 vehicle fleet turnover will remain surplus and available for other future SIP purposes. The proposed allocation of the fleet turnover reductions is provided in Table 4.3: *Allocation of Emission Reductions from the 2009 through 2010 Fleet Turnover*, and further described in Chapter 4, *Required Control Strategy Elements*, of this SIP revision.

Commission adoption of this DFW RACT, Rule, and Contingency SIP Revision would further supplement the DFW 1997 eight-hour ozone attainment demonstration by incorporating the VOC RACT update, the associated Chapter 115 and Chapter 117 rule revisions, and the contingency plan. Additional information about each of the actions proposed in this DFW RACT, Rule, and Contingency SIP Revision is contained in Chapter 4, *Required Control Strategy Elements*, of this document.

There are no outstanding SIP requirements for the DFW area under the one-hour ozone NAAQS. A final rule published in the *Federal Register* by the EPA on October 16, 2008, ([73 FR 61357](#)) describes the EPA determination that, effective November 17, 2008, the DFW one-hour ozone nonattainment area (consisting of Dallas, Denton, Collin, and Tarrant Counties) has attained the one-hour ozone standard. This determination was based on the EPA's review of certified ambient air monitoring data showing attainment of the one-hour ozone NAAQS for the 2004 through 2006 period. The one-hour ozone standard attainment determination was further supported by EPA's review of quality-controlled, quality-assured ozone data for 2007 and 2008. Due to the area's one-hour ozone standard attainment, the EPA determined that all requirements to submit any

demonstration of attainment, Five Percent Increment of Progress (IOP) plan, reasonable further progress (RFP) plan, contingency plan, or other planning SIP revisions related to attainment of the one-hour ozone NAAQS, are suspended for as long as the area continues to attain that standard.

**1.2. HEALTH EFFECTS** (No revision)

**1.3. PUBLIC/STAKEHOLDER PARTICIPATION** (Revision)

The commission will hold two public hearings for this proposed SIP revision at the following times and locations:

CITY	DATE	TIME	LOCATION
Austin	October 29, 2009	1:00 P.M. (CST)	TCEQ Headquarters 12100 Park 35 Circle Austin, TX 78753 Building E, Room 201S
Fort Worth	November 2, 2009	2:00 P.M. (CST)	TCEQ Region 4 Offices 2309 Gravel Road Fort Worth, TX 76118 Public Meeting Room

The comment period will open on October 9, 2009, and close on November 9, 2009. Written comments will be accepted via mail, fax, or through the [eComments](#) system. All comments should reference the “**DFW RACT, Rule, and Contingency SIP Revision**” and **Project Number 2009-021-SIP-NR**. Comments may be submitted to Mary Ann P. Cook, MC 206, State Implementation Plan Team, Chief Engineer’s Office, Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087 or faxed to (512) 239-5687 (Attn. Mary Ann P. Cook). Electronic comments may be submitted via the [eComments Form for Proposed TCEQ Rulemakings](#), at <http://www5.tceq.state.tx.us/rules/ecommments>. File size restrictions may apply to comments being submitted via the eComments system. **Comments must be received by November 9, 2009.**

Copies of the proposed SIP revision and all appendices can be obtained from the TCEQ’s Web site at <http://www.tceq.state.tx.us/implementation/air/sip/dfw.html>.

Prior to opening each of the public hearings, TCEQ staff will hold a short discussion session where interested persons may direct questions to staff and obtain information. For the hearing to be held in Austin on October 29, 2009, the preceding discussion session will begin at 12:30 p.m. CST and end at 1:00 p.m. CST. For the hearing to be held in Fort Worth, the preceding discussion period will begin at 1:30 p.m. CST and end at 2:00 p.m. CST. Also prior to opening each hearing, sign-up lists will be made available for interested persons to indicate a desire to provide oral comment. In the event no party signs up to speak at a hearing, the hearing will not be officially opened. If interested parties sign up to provide comment, a hearing will be officially opened and those who signed up to speak will be called upon to provide oral comments. TCEQ staff is unable to hold discussions with or answer questions from speakers during public hearings.

Comments on the 30 TAC Chapter 115 and Chapter 117 rule proposals associated with this SIP revision will not be addressed by the comments responses for this SIP revision. Only comments clearly identified as applicable to this DFW RACT, Rule, and Contingency SIP Revision will be addressed in the Response to Comments document for this SIP revision. Instructions for submitting comments on the 30 TAC Chapter 115 and Chapter 117 rule proposals are contained in the preamble applicable to each of those rule proposal packages.

**1.4. SOCIAL AND ECONOMIC CONSIDERATIONS** (Revision)

There are no social or economic issues of concern attributable to this DFW RACT, Rule, and Contingency SIP Revision. For a detailed explanation of any social and economic issues involved with the associated Chapter 115 and 117 rulemaking, please refer to the preamble in each of those proposals. Proposed rulemaking documents may be accessed from the TCEQ public Web site rule project information search address, at <http://www5.tceq.state.tx.us/rules/>. TCEQ proposed and adopted rules may be accessed from the *Texas Register* index on the Texas Secretary of State's Web site, located at <http://www.sos.state.tx.us/texreg/index.shtml>.

**1.5. FISCAL AND MANPOWER RESOURCES** (No revision)

**CHAPTER 2. PHOTOCHEMICAL MODELING**

(No revision)

**CHAPTER 3. CORROBORATIVE ANALYSIS**

(No revision)

## CHAPTER 4. REQUIRED CONTROL STRATEGY ELEMENTS

### 4.1. OVERVIEW OF EXISTING CONTROL STRATEGY (No revision)

### 4.2. NITROGEN OXIDES (NO<sub>x</sub>) AND VOLATILE ORGANIC COMPOUNDS (VOC) CONTROL MEASURES

#### 4.2.1. VOC Control Measures (Revision)

##### 4.2.1.1. Background (Addition)

Under 42 United States Code (USC), § 7511(b), the United States Environmental Protection Agency (EPA) is required to issue Control Techniques Guidelines (CTG) to assist states in developing RACT for major sources of volatile organic compounds (VOC) emissions. States can adopt and implement the CTG recommendations, or they can adopt alternative approaches, but in either event, a RACT demonstration and any rule revisions must be submitted to the EPA for review and approval as part of the State Implementation Plan (SIP). The Federal Clean Air Act (FCAA) provides that states with ozone nonattainment areas classified as moderate and above must revise their ozone SIPs to include requirements for RACT for VOC sources covered by any EPA CTG document issued after November 15, 1990, and prior to the date of attainment. The Dallas-Fort Worth (DFW) 1997 eight-hour ozone nonattainment area's attainment date is June 15, 2010. The nine county area includes Dallas, Denton, Tarrant, Collin, Parker, Johnson, Ellis, Kaufman, and Rockwall Counties.

The EPA provided final approval of the volatile organic compounds (VOC) Reasonably Available Control Technology (RACT) analysis element of the DFW attainment demonstration in the conditional approval for the DFW 1997 Eight-Hour Ozone AD SIP Revision (74 FR 1903; January 14, 2009). During and shortly after development of that SIP revision, the EPA issued 11 new CTG documents. Texas Commission on Environmental Quality (TCEQ) staff has evaluated the new CTG documents to make RACT determinations for the State of Texas and to determine if additional VOC controls are necessary to fulfill RACT requirements. Section 4.6, *Contingency Measures*, of this SIP revision further describes the RACT update analysis proposed in this SIP revision, and Appendix A: *DFW Reasonably Available Control Technology Analysis Update* provides additional details regarding evaluation of the 11 CTG recommendation documents.

The TCEQ has determined that some emission control recommendations in the Offset Lithographic and Letterpress Printing CTG document (71 FR 58745, October 5, 2006) represent RACT for the DFW area. In offset lithographic printing, VOC emissions result from the evaporation of components of the ink, fountain solutions, and cleaning solutions. Fountain solutions can account for up to 25 percent of the total VOC emissions from offset lithographic printing operations. Cleaning solutions containing organic solvents, used to remove excess printing ink oils or unwanted debris from the offset lithographic printing, also contribute to VOC emissions.

##### 4.2.1.2. Proposed 30 Texas Administrative Code (TAC) Chapter 115 VOC Rule Revision (TCEQ Rule project 2008-019-115-EN) (Addition)

Concurrent with this SIP revision, the TCEQ is proposing a Chapter 115 rule revision to implement new RACT requirements for offset lithographic printing sources in the DFW area, as required by the Federal Clean Air Act (FCAA), § 172(c)(1) and § 182(b)(2). The proposed

rulemaking implements the 2006 CTG recommendations to limit the VOC content of solvents used by offset lithographic printing facilities in the DFW nine-county 1997 eight-hour ozone nonattainment area. The proposed rulemaking is scheduled for the commission's consideration for adoption at the March 10, 2010, TCEQ agenda.

The proposed rule revision would amend Chapter 115, Subchapter E, Division 4, to reduce VOC content limits of fountain solutions used by offset lithographic printing operations currently subject to these rules. The proposed rules would also limit the VOC content of fountain and cleaning solutions used in offset lithographic printing operations that are exempt under current rules. Existing Chapter 115 rules limit the VOC content of fountain and cleaning solutions used by offset lithographic printing lines in the DFW area with combined uncontrolled VOC emissions of at least 50 tpy. The proposed rules would expand requirements in the DFW area beginning March 1, 2011, to limit the VOC content of fountain and cleaning solutions used by offset lithographic printing lines located on a property with combined uncontrolled VOC emissions of at least three tpy.

Because the commission is proposing a revised Chapter 115 to include RACT requirements for offset lithographic printing sources, the state VOC rule for those sources will no longer be available for use as a measure in the DFW attainment demonstration contingency plan. In order to maintain integrity of the DFW 1997 eight-hour ozone attainment demonstration, this DFW RACT, Rule, and Contingency SIP Revision proposes to modify the contingency plan, to remove and replace the state VOC rule offset lithographic contingency measure as more specifically described in Section 4.6, *Contingency Measures*, of this SIP revision.

Additional information on the proposed rulemaking is contained in the preamble for TCEQ Rule project 2008-019-115-EN. Additional information on the RACT analysis of the Offset Lithographic and Letterpress Printing CTG can be found in Appendix A: *DFW Reasonably Available Control Technology Analysis Update*.

#### **4.2.2. NO<sub>x</sub> Control Measures**

##### 4.2.2.1. Major Source NO<sub>x</sub> Reductions

###### *4.2.2.1.1. Industrial, Commercial, and Institutional (ICI) Sources (Revision)*

###### *4.2.2.1.1.1. Background (Addition)*

Concurrent with adoption of the May 2007 DFW AD SIP Revision, the commission adopted a revised 30 TAC Chapter 117, Subchapter B, Division 4 rule for major emission sources on May 23, 2007. The rule established new emission control requirements, beginning in March 1, 2009, and March 1, 2010, for major industrial, commercial, or institutional (ICI) sources of NO<sub>x</sub> in the DFW 1997 eight-hour ozone nonattainment area. Subchapter B, Division 4, requires owners or operators of major ICI sources of NO<sub>x</sub> in the DFW 1997 eight-hour ozone nonattainment area to reduce NO<sub>x</sub> emissions from a wide variety of stationary sources, providing emissions reductions to help bring the DFW ozone nonattainment area into compliance with the 1997 eight-hour ozone National Ambient Air Quality Standards (NAAQS).

On December 11, 2008, a petition for rulemaking requesting an amendment to Chapter 117, Subchapter B, Division 4, for certain DFW area sources, was filed with the commission. The petition (TCEQ Rule Project No. 2009-012-PET-NR), submitted by Brown McCarroll, L.L.P., on behalf of Elk Corporation of Texas, requested that the agency initiate rulemaking to revise 30

TAC Chapter 117, Subchapter B, § 117.403(a)(12). The request related to owners and operators of low-temperature drying and curing ovens used in mineral wool-type fiberglass manufacturing and wet-laid, non-woven fiber mat manufacturing located at major sources in the DFW 1997 eight-hour ozone nonattainment area. Source categories affected by the petitioners request are currently required to comply with Chapter 117 rule requirements by March 1, 2010.

Elk Corporation of Texas operates an asphalt shingle manufacturing plant in Ennis, Texas. In the petitioner's manufacturing process, a urea-formaldehyde resin binder is used with other nitrogen-containing compounds on a fiberglass substrate that is then passed through a drying and curing oven. This operation results in nitrogen-containing off-gas that is vented through incinerators and reacts with oxygen to form NO<sub>x</sub>. The petitioner asserts that emissions associated with the manufacturing process alone makes compliance with the applicable NO<sub>x</sub> emission specification in § 117.410(b) of 0.036 pounds per million British thermal unit (lb/MMBtu) infeasible. On January 28, 2009, the commission considered and approved the petition for rulemaking. The commission issued an order on February 2, 2009, directing the executive director to examine the issues in the petition and to initiate rulemaking.

4.2.2.1.1.2. Proposed 30 TAC Chapter 117 Rule revision (TCEQ Rule Project 2009-023-117-EN) (Addition)

On August 12, 2009, the TCEQ proposed an amendment to § 117.403 to implement the rule changes requested by Elk Corporation of Texas. The proposed rulemaking would amend Chapter 117, Subchapter B, Division 4, § 117.403 for the DFW eight-hour ozone nonattainment area. It would expand the exemption in § 117.403(a)(12) to include low-temperature drying ovens and curing ovens used in wet-laid, non-woven fiber mat manufacturing as well as in low-temperature drying ovens used in mineral wool-type fiberglass manufacturing where nitrogen-containing resins or other additives are used. The current § 117.403(a)(12) only exempts curing ovens used in mineral wool-type fiberglass manufacturing in which nitrogen-bound chemical additives are used. If adopted, the Chapter 117 rule revision would become effective on February 4, 2010. This DFW RACT, Rule, and Contingency SIP Revision proposes to incorporate a revised § 117.403 into the SIP.

In 2006, during Chapter 117 rulemaking development for the DFW 1997 eight-hour ozone nonattainment area, comments were received from Owens Corning pointing out technical feasibility issues with controlling NO<sub>x</sub> emission from curing ovens of this specific operation. In response to those comments, a provision was added under § 117.403(a)(12) to exempt curing ovens used in mineral wool-type fiberglass manufacturing in which nitrogen-bound chemical additives are used. While the type of manufacturing covered by the proposed rulemaking is different from that specified in the current rule exemption, the technical feasibility issue for Elk Corporation of Texas is similar to the Owens Corning issue, and is the basis of the current exemption in § 117.403(a)(12). The addition of nitrogen-bound chemical additives contributes to the creation of non-combustion related thermal NO<sub>x</sub> that cannot be controlled using control methodologies identified by the commission as appropriate for curing ovens used in mineral wool-type fiberglass manufacturing.

NO<sub>x</sub> emissions from curing ovens of this type are small contributors to the total NO<sub>x</sub> emissions. If the Chapter 117 rule revision is adopted, approximately 0.1 tons per day (tpd) of anticipated NO<sub>x</sub> emission reduction will be no longer available to support the DFW 1997 eight-hour ozone attainment demonstration. Therefore, a demonstration of noninterference submittal to the EPA is required under the FCAA Section 110(l).

4.2.2.1.1.3 Demonstration of Noninterference under FCAA Section 110(l) (Addition)

The estimated 0.1 tpd NO<sub>x</sub> emission increase and resulting loss to the DFW control strategy that would result from the Chapter 117 rule exemption expansion would be insignificant and not expected to interfere with the DFW area's attainment of the 1997 ozone standard. However, the TCEQ provides this demonstration of noninterference to support the state's assertion that expansion of the exemption in § 117.403(a)(12) as proposed would not negatively impact the status of the area's attainment of the NAAQS.

The EPA issued draft guidance on June 8, 2005, titled "Demonstrating Noninterference under Section 110(l) of the Clean Air Act When Revising a State Implementation Plan." The guidance provides options available for states to demonstrate noninterference in nonattainment areas for affected pollutants. One option for demonstrating noninterference is through the substitution of measures that provide equivalent or greater emissions reduction/air quality benefits than the measure(s) being removed from the SIP.

The commission proposes to replace the 0.1 tpd NO<sub>x</sub> reduction from the § 117.403 exemption with 0.1 tpd NO<sub>x</sub> allotment of vehicle fleet turnover surplus emission reductions predicted to occur in the one-year period beginning June 15, 2009. Allocating 0.1 tpd NO<sub>x</sub> reduction from fleet turnover surplus emissions ensures that adoption of the Chapter 117 rulemaking associated with this DFW RACT, Rule, and Contingency SIP Revision will not interfere with the DFW 1997 eight-hour ozone attainment demonstration.

4.2.2.2. – 4.2.2.4 (No revision)

**4.2.3. – 4.2.7** (No revision)

**4.3. REASONABLY AVAILABLE CONTROL TECHNOLOGY (RACT) ANALYSIS**  
(Revision)

**4.3.1 DFW VOC RACT Analysis Update** (Addition)

The DFW nine-county ozone nonattainment area is classified as a moderate nonattainment area for the 1997 eight-hour ozone standard, and thus required to meet RACT mandates of the 1990 FCAA Amendments under §§ 172(c)(1), 182(b)(2) and 182(f). States containing nonattainment areas classified as moderate or higher must demonstrate that current rules fulfill 1997 eight-hour ozone RACT requirements for all control technique guidelines (CTG) categories, and for all non-CTG major sources of NO<sub>x</sub> and VOC.

Section 183(e) of the FCAA directs the EPA to regulate categories that account for at least 80 percent of the VOC emissions from consumer and commercial products in ozone nonattainment areas. FCAA § 183(e)(3) requires the EPA to regulate VOC emissions from consumer and commercial products by issuing national regulations applicable to manufacturers, processors, wholesale distributors, or importers, or by issuing CTG documents.

Under 42 United States Code (USC), § 7511(b), the EPA is required to issue CTG documents to assist states in developing RACT for major sources of VOC emissions. States can adopt and implement the CTG recommendations, or they can adopt alternative approaches, but in either event, a RACT demonstration and any rule revisions must be submitted to the EPA for review and approval as part of the SIP. The FCAA provides that states with ozone nonattainment areas classified as moderate and above must revise their ozone SIPs to include requirements for RACT

for VOC sources covered by any EPA CTG document issued after November 15, 1990, and prior to the date of attainment.

The DFW 1997 Eight-Hour Ozone AD SIP Revision submitted to the EPA in May 2007 demonstrated fulfilled VOC RACT requirements for the nine-county DFW 1997 eight-hour ozone nonattainment area. The RACT element of that SIP revision: (1) identified VOC emission CTG source categories for the area and provided negative declarations for the categories where no major emission sources exist; (2) identified the state regulation(s) that implement or exceed RACT for each applicable CTG source category; and (3) described the basis for concluding that the regulations fulfill RACT. That RACT analysis demonstrated that current VOC rules and controls for the DFW area satisfy the FCAA requirements for RACT for all CTG or alternative control technology (ACT) VOC source categories specific to any CTG or ACT documents issued prior to 2006. RACT for all non-CTG/ACT major VOC emission source categories for which controls are technologically and economically feasible is met by the EPA-approved Chapter 115 rules or other federally enforceable measures.

The EPA provided final approval of the VOC RACT analysis element of the DFW attainment demonstration in the conditional approval document for the DFW 1997 Eight-Hour Ozone AD SIP Revision (74 FR 1903; January 14, 2009). However, during and shortly after development of that SIP revision, the EPA issued 11 new Consumer and Commercial Products CTG documents. Some of the recommendations made in the new CTGs were updates to previously issued guidelines, and some were recommendations for new categories. The RACT analysis did not include the 2006 through 2008 CTG documents. The EPA requires SIP revision submittals within one year after final Consumer and Commercial Products CTG documents publish in the *Federal Register*; however, there was not sufficient time to address those in the May 2007 DFW AD SIP Revision before the submittal deadline. During development of that SIP revision, the commission had requested extension of the deadline to allow sufficient time to review, evaluate and act upon the CTGs. In its final rule, the EPA did not extend that deadline, but did indicate an intention to work with states to ensure timely submittals of the required SIP revisions.

The 11 CTG documents published in the *Federal Register* in lieu of national regulations each contain recommendations for VOC controls on various consumer and commercial products. On October 5, 2006, final CTGs for Group II product categories were published (71 FR 58745). On October 9, 2007, final CTGs were published for Group III product categories (72 FR 57215). Final CTGs for Group IV product categories were published on October 7, 2008 (73 FR 58481). The following is a list of the CTG documents:

- *Flat Wood Paneling Coatings, Group II Issued in 2006*
- *Flexible Packaging Printing Materials, Group II Issued in 2006*
- *Industrial Cleaning Solvents, Group II Issued in 2006*
- *Offset Lithographic and Letterpress Printing, Group II Issued in 2006*
- *Large Appliance Coatings, Group III Issued in 2007*
- *Metal Furniture Coatings, Group III Issued in 2007*
- *Paper, Film, and Foil Coatings, Group III Issued in 2007*
- *Auto and Light-Duty Truck Assembly Coatings, Group IV Issued in 2008*
- *Fiberglass Boat Manufacturing Materials, Group IV Issued in 2008*
- *Miscellaneous Industrial Adhesives, Group IV Issued in 2008*
- *Miscellaneous Metal and Plastic Parts Coatings, Group IV Issued in 2008*

TCEQ staff evaluated the new CTG documents to make RACT determinations for the State of Texas and to determine if additional VOC controls are necessary to fulfill RACT requirements. The following provides a brief summary of the state's RACT determinations regarding the 11 CTG documents. This DFW RACT, Rule and Contingency SIP Revision proposes an update to the VOC RACT element of the DFW area's 1997 eight-hour ozone attainment demonstration. Details regarding the state's evaluation of the CTG documents and RACT determinations for the source categories addressed are provided in the VOC RACT analysis update for the DFW area contained in Appendix A: *DFW Reasonably Available Control Technology Analysis Update*.

Through this SIP revision, the TCEQ demonstrates a continued VOC RACT fulfillment in the DFW 1997 eight-hour ozone nonattainment area. The RACT update provided in this SIP revision identifies state regulation(s) that implement or exceed RACT for each applicable CTG source category, and describe the TCEQ's basis for concluding that the regulations fulfill RACT for the DFW area. Although the FCAA requires states to implement RACT for new or revised CTGs, the recommendations made do not always constitute RACT for an affected area. As indicated by the EPA in the introduction of each of the CTG documents, the purpose of the CTG is to assist states in determining what represents RACT for specific nonattainment areas.

#### 4.3.1.1. CTG Document Recommendations Not Applicable to the DFW Area

The TCEQ provides a negative declaration for the Flat Wood Paneling Coatings CTG source category. The TCEQ determined that no sources meeting the applicability criteria recommended in the CTG document are located in the DFW area. Additional information is provided in Appendix A: *Dallas-Fort Worth Reasonably Available Control Technology Analysis Update*.

#### 4.3.1.2. CTG Document Recommendations that Do Not Represent RACT for the DFW Area

The TCEQ has determined that (1) the recommendations do not represent RACT due to economic or technological feasibility concerns, or that (2) the TCEQ has equivalent or superior controls in place for the following four CTG source categories: Fiberglass Boat Manufacturing Materials; Flexible Packaging Printing Materials; Auto and Light-Duty Truck Assembly Coatings; and Paper, Film, and Foil Coatings. Therefore, the TCEQ is not proposing to implement any rule amendments or new rules associated with these CTG categories. Additional information is provided in Appendix A: *Dallas-Fort Worth Reasonably Available Control Technology Analysis Update*.

#### 4.3.1.3. CTG Document Recommendations for which RACT Determinations are Not Being Made

The TCEQ is not making a determination at this time whether the CTG recommendations for the Industrial Cleaning Solvents or the Miscellaneous Industrial Adhesives categories represent RACT for Texas. The TCEQ's initial assessment indicates that the EPA substantially underestimated the scope and potential impact of the CTGs, and that the implementation of the recommendations would have widespread and potentially adverse impacts to small businesses and micro-businesses. The TCEQ will continue to evaluate the CTGs, and intends to provide small business outreach in order to more clearly gauge adverse impact potential. A RACT determination regarding the recommendations for this CTG source category will be made after these outstanding issues are addressed. Once adequate stakeholder input is received and the TCEQ determines potential impact to small businesses, economic and technological feasibility, and practical enforceability of the recommendations, a RACT determination can be made. Additional information is provided in Appendix A: *Dallas-Fort Worth Reasonably Available Control Technology Analysis Update*.

In a letter to the EPA dated December 8, 2008, the TCEQ requested clarification from the EPA regarding several issues related to recommendations made in the CTG documents for the following source categories: Large Appliance Coatings; Metal Furniture Coatings; and Miscellaneous Metal and Plastic Parts Coatings. A number of the CTG recommendations regarding VOC content limits for specific coatings categories are less stringent than the more general VOC content limits specified in the EPA's original CTG recommendations. The TCEQ requested clarification to determine if implementing the CTG recommendations would be backsliding. Staff has requested this clarification to ensure that the TCEQ has all the appropriate information needed to determine whether the recommendations represent RACT for Texas. As of September 4, 2009, the EPA had not yet responded to the request for clarification. Therefore, the TCEQ cannot yet determine whether these CTGs represent RACT for Texas. A RACT determination will be made after the EPA provides clarification to the issues identified and the TCEQ evaluates the CTG recommendations in context with the EPA's response.

#### 4.3.1.4. CTG Document Recommendations that Represent RACT for the DFW Area

The TCEQ has determined that some recommendations in the Offset Lithographic and Letterpress Printing CTG represent RACT for the DFW area. Concurrent with this SIP revision, the TCEQ is proposing rulemaking to limit the VOC content of solvents used by offset lithographic printing facilities in certain areas of Texas, including the DFW area (Rule Project 2008-019-115-EN). The proposed rulemaking would implement CTG recommendations to reduce the VOC content of fountain solutions and cleaning materials, and would expand applicability of the current rule to include smaller sources not currently subject to the rule. The TCEQ is not proposing to implement any rulemaking associated with the control requirements for heatset presses or letterpress printing recommendations. Additional discussion concerning the state's determination regarding the CTG recommendations for heatset press and letterpress printing is provided in Appendix A: *DFW Reasonably Available Control Technology Analysis Update*. The Chapter 115 rulemaking (TCEQ Rule Project No. 2008-019-115-EN) associated with this SIP revision, proposed to implement RACT for offset lithographic printing sources, is described in Section 4.2.1., *VOC Control Measures*, of this SIP revision.

**4.4. - 4.5.** (No revision)

#### **4.6. CONTINGENCY MEASURES** (Revision)

##### **4.6.1. Background** (Addition)

FCAA (42 USC §§ 7502(c)(9) and 7511a(c)(9)) and the EPA final Phase 2 1997 eight-hour ozone implementation rule require that the SIPs for all 1997 eight-hour ozone nonattainment areas include contingency measures as additional controls needed to further reduce emissions in the event an area fails to attain by its attainment date. The Act requires that states with ozone nonattainment areas classified as moderate and above include contingency measures in their SIPs (sections 172(c)(9) and 182(c)(9)). Per the FCAA, the failure-to-attain contingency plan must identify control measures sufficient to secure an additional three percent reduction (from the 1999 adjusted base year emissions inventory used in the attainment demonstration) in ozone precursor emissions should a moderate nonattainment area fail to attain the 1997 eight-hour ozone NAAQS by the June 15, 2010, required attainment date. The May 2007 DFW AD SIP Revision, Appendix B: *Emissions Inventory Development* identifies 520.08 tpd of VOC and 754.56 tpd of NO<sub>x</sub> in the 1999 adjusted base year emissions inventory from all anthropogenic sources in the DFW nine-county nonattainment area.

As part of its January 14 2009, final conditional approval of the DFW 1997 Eight-Hour Ozone AD SIP Revision, as supplemented and revised (74 FR 1903), the EPA deemed the failure-to-attain contingency plan (as submitted in the May 2007 DFW AD SIP Revision, supplemented in April 2008, and revised in the November 2008 DFW AD SIP Contingency Plan Revision) to be complete and fully approved. That contingency plan identified emissions reductions from three state VOC rules along with emission reductions from the 2009 through 2010 mobile source fleet turnover as the contingency measures. At the time these VOC rules were identified for the DFW eight-hour ozone failure-to-attain contingency plan, they were not required to meet VOC RACT requirements. The three rules, applicable to (1) Offset Lithographic Printing, as in 30 TAC § 115.449(c); (2) Degassing or Cleaning of Stationary, Marine, and Transport Vessels, as in 30 TAC § 115.549(b); and (3) Petroleum Dry Cleaning, as in 30 TAC § 115.559(a), were determined to provide a cumulative 1.80 tpd VOC emission reduction from sources in Collin, Dallas, Denton, and Tarrant Counties. Surplus emission reductions predicted to result from the fleet turnover to occur over a one-year period beginning June 15, 2010, were identified to provide the remainder of emission reductions needed for the three percent contingency requirement.

The turnover of the on-road fleet of cars and trucks will result in additional VOC and NO<sub>x</sub> emission benefits in 2009 and beyond because newer vehicles have significantly lower emission standards than vehicles they are replacing. New vehicle emission standards are lower primarily due to a number of federal rules such as the Tier 2 standards for automobiles and light trucks, and the 2007 Heavy-Duty Diesel standards for large diesel highway trucks. Emission reductions predicted to occur from the fleet turnover during the one-year period beginning June 15, 2009, are estimated to total 4.86 tpd VOC and 20.78 tpd NO<sub>x</sub>.

**4.6.2. Revised DFW 1997 Eight-Hour Ozone Failure-to-Attain Contingency Plan** (Addition)  
This DFW RACT, Rule and Contingency SIP Revision proposes a revised contingency plan for the DFW 1997 eight-hour ozone attainment demonstration. Removal of one measure from the contingency plan - the offset lithographic measure - and a modified allotment of fleet turnover reductions dedicated to the failure-to-attain contingency plan are both proposed in this SIP revision. Upon adoption of this DFW RACT, Rule, and Contingency SIP Revision, 13.36 tpd of the NO<sub>x</sub> emission reductions, and 4.86 tpd of the VOC emission reductions predicted from the June 2009 through 2010 fleet turnover will be dedicated to provide reductions for the contingency plan.

Due to the associated Chapter 115 rule proposal applicable to the same sources, the offset lithograph printing rule contingency measure (and the associated 0.24 tpd predicted VOC reduction) is being removed as a contingency measure. However, the two other state VOC rules identified in the SIP revision will remain in the SIP. Those two VOC rule contingency measures provide controls applicable to the degassing or cleaning process of stationary, marine, and transport vessels, and to petroleum-based dry cleaning.

The three contingency measures identified in Table 4.1: *Emission Reductions Provided by Proposed Contingency Plan*, and further described below, are measures identified for the proposed DFW 1997 eight-hour ozone attainment demonstration contingency plan, for implementation in the event the contingency plan is triggered.

1. 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 must be in compliance with [30 TAC, Chapter 115, Subchapter F, Division 3 \(relating to Degassing or Cleaning of Stationary, Marine, and Transport Vessels\)](#) as soon as practicable, but no later than one year, after notification is

published in the *Texas Register* of the commission’s determination that this contingency rule is necessary as a result of failure to attain the 1997 NAAQS for ozone by the attainment deadline as set forth in the 1990 Amendments to the FCAA, § 172(c)(9). The commission will submit notification to the *Texas Register* for publication within 60 days after the EPA notifies the state of its failure through publication of a final action in the *Federal Register*.

2. 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 must be in compliance with [30 TAC, Chapter 115, Subchapter F, Division 4 \(relating to Petroleum Dry Cleaning Systems\)](#) as soon as practicable, but no later than one year, after notification is published in the *Texas Register* of the commission’s determination that this contingency rule is necessary as a result of failure to attain the 1997 NAAQS for ozone by the attainment deadline as set forth in the 1990 Amendments to FCAA, § 172(c)(9). The commission will submit notification to the *Texas Register* for publication within 60 days after the EPA notifies the state of its failure through publication of a final action in the *Federal Register*.
3. Emission reductions to provide 4.86 tpd VOC and 13.36 tpd NO<sub>x</sub>, allotted to the DFW contingency plan from and out of surplus emission reductions that will result from the motor vehicle fleet turnover to occur during a one-year period beginning June 15, 2009.

**Table 4.1: Emission Reductions Provided by Proposed Contingency Plan**

Contingency Measure Emission Reductions (tpd)	VOC	NO <sub>x</sub>
State VOC rule contingency measure applicable to the Degassing or Cleaning of Stationary, Marine, and Transport Vessels*	0.18	00.00
State VOC rule contingency measure applicable to Petroleum Dry Cleaning*	1.38	00.00
Mobile source fleet turnover emission reductions** (portion allocated for contingency)	4.86	13.36
<b>Total Contingency Plan Reductions</b>	<b>6.42</b>	<b>13.36</b>

\*applicable in Collin, Dallas, Denton, and Tarrant Counties only

\*\*attributable to DFW nine-county area

The method used to calculate the DFW three percent contingency emission reduction requirement is represented in the following equation:

$$R_v/VOC_{BASE} + R_n/NO_x_{BASE} \geq 0.03 \text{ where;}$$

R<sub>v</sub> = typical summer day VOC reductions in mass units

R<sub>n</sub> = typical summer day NO<sub>x</sub> reductions in mass units

VOC<sub>BASE</sub> = the mass of anthropogenic VOC emissions in the 1999 adjusted base year inventory, and

NO<sub>x</sub><sub>BASE</sub> = the mass of anthropogenic NO<sub>x</sub> emissions in the 1999 adjusted base year inventory,

and was calculated as follows:

$$[(6.42/520.08) + (13.36/754.56)] = 3\%$$

Table 4.2: *Calculations Showing Three Percent Required Reductions* shows that the proposed DFW contingency plan will provide a 1.23 percent reduction from the DFW area 1999 adjusted

base year VOC emissions inventory, and a 1.77 percent reduction from the corresponding NO<sub>x</sub> emissions inventory. Following the EPA's NO<sub>x</sub> substitution guidance to calculate the contingency plan reductions, the 1.23 (percent VOC reduction) is added to the 1.77 (percent NO<sub>x</sub> reduction) to equal the required 3.00 (percent total VOC and/or NO<sub>x</sub> emissions reductions). This modified contingency plan identifies measures to provide the required reductions, totaling 6.42 tpd VOC and 13.36 tpd NO<sub>x</sub>.

**Table 4.2: Calculations Showing Three Percent Required Reductions**

<b>Modified DFW Contingency Plan Calculations</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>
1999 adjusted base year EI, DFW 9-county area (tpd weekday)	520.08	754.56
tpd emissions reductions from the two state VOC rule measures	1.56	0.00
tpd emissions reductions from the surplus fleet turnover emissions reductions allotted for the contingency plan	4.86	13.36
<b><i>(Total tpd reductions to be provided by the modified contingency plan)</i></b>	<b><i>(6.42)</i></b>	<b><i>(13.36)</i></b>
Percentage of inventory reduction for each precursor	1.23%	1.77%
<b><i>Total percentage of reductions provided by the plan</i></b>	<b><i>3.00% total</i></b>	

**4.6.3. Allocation of the June 2009 through 2010 fleet turnover reductions** (Addition)

Table 4.3: *Allocation of Emissions Reductions from the 2009 through 2010 Fleet Turnover* consolidates emissions reductions allocations proposed in this DFW RACT, Rule, and Contingency SIP Revision. Out of the total 4.86 tpd VOC and 20.78 NO<sub>x</sub> emission reductions predicted to occur from the fleet turnover expected to occur during the one-year period beginning June 15, 2009, all of the 4.86 tpd VOC and 13.36 tpd of the NO<sub>x</sub> reductions are allotted to provide reductions for the proposed DFW contingency plan. The remaining 7.42 tpd surplus NO<sub>x</sub> emissions reduction from fleet-turnover is surplus and usable for other future SIP purposes.

**Table 4.3: Allocation of Emissions Reductions from the 2009 through 2010 Fleet Turnover**

<b>Vehicle Fleet Turnover Emission Reductions* (tpd)</b>	<b>VOC</b>	<b>NO<sub>x</sub></b>
Total emissions reductions from June 2009 through 2010 fleet turnover	4.86	20.78
Allocation to replace NO <sub>x</sub> reduction lost from control strategy upon adoption of Chap. 117 rulemaking (see section 4.2.2.1)	-0.00	- 0.10
Allocation to the proposed DFW contingency plan	-4.86	- 13.36
<b><i>Remaining surplus emission reductions available for future SIP use</i></b>	<b><i>0.00</i></b>	<b><i>7.42</i></b>

\* from the nine-county DFW eight-hour ozone nonattainment area

**APPENDIX A:**

**Dallas-Fort Worth Reasonably Available Control Technology Analysis Update**

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## **DALLAS-FORT WORTH REASONABLY AVAILABLE CONTROL TECHNOLOGY ANALYSIS UPDATE**

### **1.0. Introduction**

The Dallas-Fort Worth (DFW) eight-hour ozone nonattainment area (Dallas, Denton, Collin, Tarrant, Parker, Johnson, Ellis, Kaufman, and Rockwall Counties) is currently classified moderate nonattainment for the United States Environmental Protection Agency (EPA) 1997 eight-hour ozone National Ambient Air Quality Standards (NAAQS). Under the 1997 eight-hour ozone standard, the area is required to meet the mandates of the Federal Clean Air Act (FCAA) under §§ 172(c)(1), 182(b)(2) and 182(f). According to the EPA's Final Rule to Implement the Eight-Hour Ozone NAAQS (40 Code of Federal Regulations (CFR) § 51.912, November 29, 2005), the area must submit as a revision to the state implementation plan (SIP) a demonstration that current rules fulfill the eight-hour reasonably available control technology (RACT) requirements for all Control Techniques Guidelines (CTG) categories. The EPA previously approved the volatile organic compounds (VOC) RACT analysis, as submitted in the May 2007 DFW Eight-Hour Ozone Attainment Demonstration SIP Revision (74 FR 1903; January 14, 2009). However, in 2006 through 2008, the EPA issued 11 new CTG documents containing recommendations for VOC controls on a variety of consumer and commercial products. Some of the new CTG recommendations update previously issued CTG documents and some of them apply to new source categories. The Texas Commission on Environmental Quality (TCEQ) has evaluated the CTG documents to determine if additional VOC controls are necessary to fulfill RACT requirements. The following is a list of the 11 CTG documents evaluated for this DFW VOC RACT analysis update:

- *Flat Wood Paneling Coatings*, Group II issued in 2006
- *Flexible Packaging Printing Materials*, Group II issued in 2006
- *Industrial Cleaning Solvents*, Group II issued in 2006
- *Offset Lithographic and Letterpress Printing*, Group II issued in 2006
- *Large Appliance Coatings*, Group III issued in 2007
- *Metal Furniture Coatings*, Group III issued in 2007
- *Paper, Film, and Foil Coatings*, Group III issued in 2007
- *Auto and Light-Duty Truck Assembly Coatings*, Group IV issued in 2008
- *Fiberglass Boat Manufacturing Materials*, Group IV issued in 2008
- *Miscellaneous Industrial Adhesives*, Group IV issued in 2008
- *Miscellaneous Metal and Plastic Parts Coatings*, Group IV issued in 2008

Because the Group II CTG documents published just shortly before the May 2007 DFW AD SIP Revision was proposed, and because the EPA issued the remaining seven after the TCEQ submitted that SIP revision to the EPA, RACT analysis determinations for the new CTGs have not yet been submitted to the EPA. This document addresses the 11 CTG documents, and provides a VOC RACT analysis update for the DFW area.

RACT represents the lowest emissions limitation that a particular source is capable of meeting by the application of control technology that is reasonably available, considering technological and economic feasibility (44 *Federal Register* 53762; September 17, 1979). RACT requirements for moderate nonattainment areas are included in the FCAA to ensure the control, to a reasonable extent, of ozone precursor emissions at major sources are controlled. However, RACT control levels are not necessarily equal to the best available control technology (BACT) levels expected

of new sources or to the maximum achievable control technology (MACT) levels required for major sources of hazardous air pollutants.

RACT and reasonably available control measures (RACM) have similar consideration factors such as technological and economic feasibility; however, there is significant distinction between RACT and RACM. In order for a control measure to be determined RACM, the measure must advance the area's NAAQS attainment. However, a measure need not advance NAAQS attainment to be determined RACT, as benefits resulting from RACT implementation are presumed under the FCAA.

## **2.0. RACT Evaluation Approach**

### **2.1. General Discussion**

The TCEQ demonstrates that RACT requirements are fulfilled by: (1) identifying all CTG source categories of VOC and NO<sub>x</sub> emissions and submitting negative declarations for categories where no major emission sources exist; (2) identifying all non-CTG major sources of VOC and NO<sub>x</sub> emissions; (3) identifying the state regulation implementing or exceeding RACT for each applicable CTG source category or non-CTG major emission source; and (4) describing the basis for conclusion that the regulations fulfill RACT. Because this SIP revision focuses specifically on the 11 CTG documents issued by the EPA from 2006 through 2008, this RACT analysis provides only an update to the DFW VOC RACT demonstration.

### **2.2. Identification of CTG Emission Source Categories**

The EPA has issued CTG documents defining RACT for existing facilities. The TCEQ reviewed the 11 Consumer and Commercial Products CTG documents issued from 2006 through 2008 to identify all source categories of VOC emissions that require RACT. RACT determinations are not required if there are no facilities in the DFW area that are subject to the CTG document. Negative declarations for source categories described in the EPA guidance documents that do not exist in the DFW area are included.

### **2.3. Determining if State Regulations Fulfill RACT Requirements**

The EPA previously approved the VOC rules in 30 Texas Administrative Code (TAC) Chapter 115 as meeting RACT requirements for the DFW area for CTG documents issued prior to 2006. RACT determinations regarding the CTG documents issued in 2006 and later were made by comparing the CTG recommendations to TCEQ rules to determine if the existing rules satisfied RACT. Specific discussion regarding the CTG recommendations evaluated is provided in Sections 3.3.2. through 3.3.4.

BACT is an emission standard based upon a maximum achievable degree of emission reduction, and is at least as stringent as the emission standards set by any applicable FCAA provision. MACT is an emission standard that requires the maximum reduction of hazardous emissions, and is at least as stringent as the average emission level achieved by controls on the top 12 percent of existing sources in the applicable source category. Emission sources that are subject to the more stringent BACT or MACT requirements were determined to fulfill RACT requirements. The TCEQ reviewed the emission sources in the DFW area and the applicable state rules to verify that all CTG emission source categories in the DFW area are subject to requirements that meet or exceed applicable RACT requirements or that further emission controls are not economically or technologically feasible.

### 3.0. RACT Determination and Discussion

#### 3.1. The EPA Consumer and Commercial Products CTG Documents, Group II Issued in 2006

##### 3.1.1. Flat Wood Paneling Coatings

The TCEQ is not proposing to implement any rule amendment or new rule for the DFW area associated with the Flat Wood Paneling Coatings CTG. The EPA indicated in Appendix B: *State and Local Regulations for Flat Wood Paneling* of the CTG document that two facilities in Texas ozone nonattainment areas are potentially subject to the recommendations. Based on a review of the 2005 point source emissions inventory, the TCEQ determined that only one facility in the DFW area, Buell Door Company, TCEQ Account Number DB-0128-U, may fit the source category description in the Flat Wood Paneling Coatings CTG. However, that facility ceased all operations in 2006 and to date has not reported any emissions for the site for subsequent years. The TCEQ does not expect that the company will resume business operations at this facility; therefore, the TCEQ provides a negative declaration for this CTG category for the DFW area.

##### 3.1.2. Flexible Packaging Printing Materials

The TCEQ is not proposing to implement any rule amendments or new rules for the DFW area associated with the Flexible Packaging Printing Materials CTG document. Rules for flexographic and rotogravure printing in Chapter 115, Subchapter E, Division 3 and the sites' permit provisions sufficiently satisfy RACT for the DFW area. The Flexible Packaging Printing Materials CTG recommends an add-on air pollution control device requirement on any flexible package printing press with the potential to emit 25 tons per year (tpy) or more of VOC. Current TCEQ rules control emissions from flexographic and rotogravure printing lines on a property with the combined uncontrolled potential to emit 50 tpy or more of VOC when operating at maximum production rate. The TCEQ has identified nine facilities in the DFW nonattainment area that potentially meet applicability criteria in this CTG document. However, eight facilities have enforceable limitations on VOC emissions in place that restrict VOC emissions to less than 25 tpy, consistent with the recommendation to allow sites to elect the 25 tpy enforceable limitation. The remaining facility, Printpack Inc., TCEQ Account Number TA-0282-E, has enforceable permit provisions that are more effective overall than the CTG recommendations regarding VOC capture and destruction efficiency. The permit requirements specified for these facilities sufficiently fulfill RACT requirements for this CTG category.

The CTG also recommends specific work practice requirements for flexible package printing operations with an uncontrolled potential to emit 15 pounds per day (ppd) or more of VOC. The EPA's CTG document does not provide a VOC emissions reduction estimate for implementing these work practices. Based on the TCEQ's review, the potential benefit from implementing the work practices is not reliably quantifiable, and any emission reduction would likely be miniscule. Additionally, the TCEQ expects that most facilities already voluntarily follow similar work practices for safety reasons or that they have required work practices as part of a permit authorization. The TCEQ does not consider it reasonable to impose additional rule requirements for general housekeeping requirements when neither need nor quantifiable benefits are apparent.

##### 3.1.3. Industrial Cleaning Solvents

The TCEQ is not making a RACT determination at this time regarding the Industrial Cleaning Solvents CTG recommendations. The TCEQ's assessment indicates that the EPA substantially underestimated the scope and potential impact of the recommendations. In Appendix D of the CTG document: *Number of nonattainment facilities organized by State that are estimated to meet the applicability criteria recommended in the CTG*, the EPA estimated 92 facilities in Texas nonattainment areas would be subject to the recommendations. However, the North American

Industry Classification System (NAICS) codes provided in Appendix C of the CTG document: *Summary of NAICS Codes for nonattainment facilities estimated to meet the applicability criteria recommended in the CTG* suggests a much broader applicability. Based on the EPA's 15 ppd VOC suggested exemption threshold and the listed NAICS codes, the TCEQ estimates that implementation of this recommendation would have widespread and possibly adverse impact on small business and micro-business in Texas. Evaluating technological and economic feasibility aspects of a proposed technology or control measure is integral to determining RACT; however, identifying potentially impacted businesses and determining applicability of a technology or measure are required to conduct those evaluations. Because additional research is needed in order to clarify and determine source applicability of this CTG, a RACT analysis cannot be completed at this time. The TCEQ will continue to evaluate this CTG, and intends to conduct small business outreach to potentially impacted stakeholders in order to obtain the information needed to complete a RACT analysis. A RACT determination for this CTG category can be made only after the TCEQ has determined impact to small businesses, technological and economic feasibility, and practical enforceability of the CTG recommendations.

#### 3.1.4. Offset Lithographic & Letterpress Printing

The TCEQ has determined that portions of the Offset Lithographic and Letterpress Printing CTG recommendations do represent RACT for the DFW area. Concurrent with this SIP revision, the TCEQ is proposing rulemaking to limit the VOC content of solvents used by offset lithographic printing facilities in the DFW area. The proposed Chapter 115 rulemaking implements the CTG recommendations to reduce the VOC content of the fountain solutions and cleaning solutions, and expands rule applicability to include smaller sources not subject to the existing rule.

The TCEQ is not proposing to implement any rule amendments or new rules for the DFW area associated with the recommended control requirements for heatset presses. The CTG recommends an add-on air pollution control device requirement for each heatset offset lithographic press with an uncontrolled potential to emit 25 tpy of VOC or more from the dryer. The EPA recommends different control efficiencies for devices installed before and after the effective date of the rule implementing these CTG recommendations; EPA recommends requiring a 90 percent overall control efficiency for control devices installed before the rule effective date and a 95 percent overall control efficiency for control devices installed after the rule effective date. The commission is not proposing any rule amendments or new rules to implement the EPA's recommendations for these sources.

In the DFW area, the existing Chapter 115 rules require control devices with an efficiency of at least 90 percent to be installed on heatset offset lithographic presses located on a property with combined VOC emissions of at least 50 tpy. The existing Chapter 115 requirement may not be as stringent as the EPA's recommendations for control devices installed before the rule effective date in all instances, since an individual press with uncontrolled emissions greater than 25 tpy could be located on a site with total emissions less than 50 tpy when uncontrolled. However, staff reviewed the point source emissions inventory, Title V, and central registry databases to identify heatset presses in the DFW area potentially subject to the EPA's CTG recommendations and determined that the heatset presses identified have control devices with a minimum efficiency of 90 percent to comply with either Chapter 115 rules or as part of their permit authorization. Since the level of control on heatset presses identified in the DFW area either meets or exceeds the EPA's recommendations for control devices installed before the effective date of the rule, the commission is not proposing any new rules or rule revisions for control devices on heatset presses in the DFW area.

The EPA also recommends requiring a 95 percent overall efficiency for control devices installed after the rule effective date on individual heatset web offset lithographic presses with the uncontrolled potential to emit at least 25 tpy of VOC. Control devices installed in the future will be required to meet best available control technology standards of at least 95 percent control efficiency as part of their permit authorization. Therefore, the commission is not proposing any new rules or rule revisions for control devices installed on heatset presses after the effective date of the rule.

The TCEQ is not proposing to implement any new rules associated with the recommendations applicable to letterpress printing emission sources in DFW area. Letterpress printing operations are not currently regulated under Chapter 115 rules; however, the CTG recommends an add-on air pollution control device requirement for each heatset letterpress with an uncontrolled potential to emit 25 tpy or more of VOC from the dryer. Reviews of the point source emissions inventory, Title V database, and central registry databases indicate there may be some letterpress printing operations co-located with offset lithographic printing operations in the DFW area; however, it appears that none of the presses have potential to emit over 15 tpy of VOC, so they are not subject to the recommended controls.

The 2006 CTG also recommends limiting the VOC content of cleaning solutions used in offset lithographic printing operations to 70.0 percent VOC by weight in conjunction with work practice standards. However, the proposed rules retain the more stringent existing Chapter 115 cleaning solution content limit of 70 percent VOC by volume in conjunction with work practice standards. In addition, the proposed rules retain the existing Chapter 115 option to limit the cleaning solution content to 50 percent VOC by volume. The TCEQ is proposing to include this option to retain the flexibility afforded to owners and operators subject to the current rules. The CTG also recommends requiring specific work practices for cleaning operations for offset lithographic and letterpress printing facilities with the uncontrolled potential to emit of 15 ppd or more of VOC. The TCEQ expects that most facilities are already voluntarily following similar practices for safety reasons or have required work practices as part of the sites' permit authorization. The TCEQ does not consider it reasonable to implement additional rule requirements for general housekeeping requirements on sites when there is no apparent need nor any quantifiable benefit.

### 3.2. EPA Consumer and Commercial Products CTG Documents, Group III Issued in 2007

#### 3.2.1. Large Appliance Coating

By letter dated December 8, 2008, the TCEQ requested clarification from the EPA regarding several issues related to the Large Appliance Coatings CTG recommendations. Current TCEQ rules in Chapter 115 for large appliance coating operations are based on the Large Appliance Coatings CTG issued by the EPA in 1977. A number of the recommended VOC content limits for specific coatings categories listed in the 2007 CTG document are less stringent than the more general VOC content limits specified in the EPA's 1977 CTG recommendations for the Large Appliance Coatings category. Since the 2007 Large Appliance Coatings CTG document does not specifically address this issue, the TCEQ has requested clarification to verify that implementation of the new recommendations would not be backsliding, and to ensure that the TCEQ has all information needed to determine whether the 2007 CTG recommendations represent RACT for Texas. See Attachment 1 for the TCEQ letter to the EPA requesting clarification on these issues.

As of September 4, 2009, the EPA has not responded to the TCEQ request for clarification on the Large Appliance Coatings CTG recommendations. Therefore, the TCEQ is not making a RACT determination until the EPA provides clarification to the issues identified, and the TCEQ evaluates the CTG recommendations in context with the EPA's response.

### 3.2.2. Metal Furniture Coatings

In the previously mentioned letter to the EPA of December 8, 2008, the TCEQ requested clarification from the EPA regarding several issues related to the Metal Furniture Coatings CTGs. Current TCEQ rules in Chapter 115 for metal furniture coating operations are based directly on the 1977 Metal Furniture Coatings CTG document issued by the EPA. A number of the VOC content limits for specific coatings categories recommended in the 2007 CTGs are less stringent than the more general VOC content limits specified in the EPA's 1977 recommendations for the Metal Furniture Coatings category. Since the 2007 Metal Furniture Coatings CTG document does not specifically address this issue, the TCEQ has requested clarification from the EPA to ensure that implementing the 2007 CTGs would not be backsliding, and to be certain that the TCEQ has the appropriate information to determine whether the 2007 CTGs represent RACT for Texas. See Attachment 1 for the TCEQ letter to the EPA requesting clarification on these issues.

As of September 4, 2009, the EPA has not responded to the TCEQ request for clarification on the CTG recommendations. Therefore, the TCEQ is not making a RACT determination until the EPA provides clarification to the issues identified, and the TCEQ evaluates the CTG recommendations in context with the EPA's response.

### 3.2.3. Paper, Film, and Foil Coatings

The TCEQ is not proposing to implement any rule amendment or new rule associated with the Paper, Film, and Foil Coatings CTG for the DFW area. The EPA recommendation for the installation of controls to achieve 90 percent reduction or compliance with the more stringent coating content limits would only apply to individual presses with a potential to emit 25 tpy or more of VOC prior to the consideration of controls. The TCEQ has identified two facilities in the DFW area that fit the applicability description in this CTG document. However, the rules in Chapter 115, Subchapter E, Division 2, and the sites' permit provisions are sufficient to satisfy RACT for the DFW area for this category of sources. One facility, Rock Tenn Converting Company, TCEQ Account Number DB-0179-D, has an enforceable permit limitation of less than 25 tpy VOC emissions from the coating line operations. This is consistent with the CTG recommendation to allow sites to elect enforceable limitations to keep VOC emissions less than 25 tpy. The other facility, Printpack Inc., TCEQ Account Number TA-0282-E, has enforceable permit provisions regarding VOC capture and destruction efficiency that are overall more effective than the CTG recommendations. The specified permits requirements for these facilities sufficiently fulfill RACT for this CTG category.

The CTG also recommends specific work practice requirements for cleaning operations at paper, film, and foil coating facilities with uncontrolled emission potential of 15 ppd or more of VOC. The two facilities identified in the DFW area each have work practices incorporated into the site's permit conditions. These enforceable work practices provide a reasonable level of control for these activities and are sufficient to fulfill RACT. The estimated VOC emissions reduction from work practice implementation was not provided by the EPA in the CTG document. Therefore, the TCEQ cannot ascertain whether any quantifiable environmental benefit would result from regulatory work practice requirements at the facility. The TCEQ does not consider it reasonable to implement additional rule requirements for general housekeeping requirements when there is no apparent need nor any quantifiable benefit.

## 3.3. EPA Consumer and Commercial Products CTG Documents, Group IV Issued in 2008

### 3.3.1. Auto and Light-Duty Truck Assembly Coatings

The TCEQ is not proposing to implement for the DFW area any rule amendments or new rules associated with the Auto and Light-Duty Truck Assembly Coatings CTG. One site identified in the DFW area is subject to the Auto and Light-Duty Truck Assembly Coatings CTG document: General Motors Corporation's Arlington Assembly Plant, TCEQ Account Number TA-0157-I. However, the EPA indicates on page 23 of the CTG document that VOC emission reductions will not result from implementing the CTGs for coatings. Because auto and light-duty truck coating facilities have previously reduced coating operation VOC emissions in compliance with 40 Code of Federal Regulations (CFR) Part 60, New Source Performance Standards (NSPS), Subpart MM, Automobile and Light-Duty Truck Surface Coating Operations; 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPS), Subpart IIII, Surface Coating of Automobiles and Light-Duty Trucks; and existing state rules, the TCEQ agrees that the CTGs for coatings would not result in any actual VOC emission reductions.

Permit requirements (TCEQ Permit Number 19156) for the General Motors Corporation Arlington Assembly Plant provide overall VOC emission controls superior to the CTG recommendations. Permit Number 19156 requires thermal or regenerative oxidizer controls at the many coating operations (clear coat operation line, prime electrodeposition coating oven, automatic zones of primer surfacer booth, primer surfacer oven, base basecoat spray booths) at the facility. In addition, coatings used must comply with the most recent VOC content requirements for coatings in the 30 TAC Chapter 115, NSPS Subpart MM, and NESHAP Subpart IIII. While the CTG document recommends coating VOC content limits slightly lower than those currently required at the facility, the control device efficiency requirement recommendations for these operations range from 75 to 91 percent. The overall level of VOC control for coating operations at the Arlington Assembly Plant is equivalent or superior to that recommended by the EPA in the CTG and sufficiently meets RACT for this category. Therefore, there is no environment benefit or other practical value in implementing rules to incorporate the recommended coating controls into Chapter 115.

Regarding the recommended work practices for coating-related activities and cleaning materials, TCEQ Permit Number 19156 specifies good industrial housekeeping and painting operation cleanup requirements. Additionally, as pointed out by the EPA in the CTG document, the NESHAP regulations require facilities to develop and implement work practice plans to reduce organic hazardous air pollutant emissions. These enforceable work practices provide reasonable control levels for these activities and are sufficient to fulfill RACT. An estimate of any VOC reduction benefit for implementing recommended work practices is not provided in the CTG document. Therefore, the TCEQ is unable to determine whether any real environmental benefit would result from imposing further regulatory work practices on the facility.

### 3.3.2. Fiberglass Boat Manufacturing Materials

The TCEQ has determined that the Fiberglass Boat Manufacturing Materials CTG recommendations do not represent RACT for Texas. The CTG document identified no facilities subject to the Fiberglass Boat Manufacturing Materials CTG document in the DFW area; however, the TCEQ cannot make a definitive negative declaration for this source category. Based on information provided by the EPA in the CTG document, the TCEQ has determined that implementing the recommended controls would not result in substantive VOC reductions, nor would it be economically feasible. The EPA stated in the CTG document that 67 facilities located in ozone nonattainment areas nationwide are expected to meet the applicability of the CTG. However, the EPA expects that additional VOC reductions will not result from any applicable major source because these emission control requirements of the 2001 Boat Manufacturing NESHAP already apply to these sources. Per the EPA, the CTG may affect only 23 minor sources nationwide in ozone nonattainment areas. A potential estimated net emission

reduction of approximately 40 tpy VOC is predicted by the EPA, and the total estimated emission reductions from all 67 facilities is estimated at 1601 tpy VOC. The EPA's suggested controls would result in only a 2.5 percent reduction to the nationwide total VOC emissions from this category. In prior EPA guidance ("Issues Relating to VOC Regulation Cutpoints, Deficiencies, and Deviations, Clarification to Appendix D of November 24, 1987 *Federal Register*" Issued May 25, 1988), alternative threshold applicability is allowed, provided the overall controlled level for the alternative ranges within 5 percent of the EPA's recommended controlled level. Based on the same criterion, because the Fiberglass Boat Manufacturing Materials CTG would not result in reductions exceeding a de minimis threshold previously established by the EPA, the CTG does not represent RACT.

Furthermore, the TCEQ disagrees with the cost analysis and determination that the controls are economically feasible. The EPA appears to have calculated the total \$168,000 cost based on multiplying the estimated 40 tpy reduction by the approximately cost effectiveness in dollars per ton from the 2001 NESHAP. This total cost estimate represents an additional average annual cost of approximately \$7,300 per facility. However, the EPA economic report referenced in the CTG document, Economic Impact Analysis of the Boat Manufacturing NESHAP (EPA-452/R-01-011), indicates substantially higher costs. The EPA economic report shows that Boat Manufacturing NESHAP compliance costs per facility average over \$100,000 in total variable costs and over \$4,000 in total fixed costs. While many of the facilities are likely to be larger businesses than would be targeted by the controls proposed in the Fiberglass Boat Manufacturing Materials CTG, over 95 percent of the 125 facilities evaluated in the economic report exceeded total costs of \$25,000, and 99 percent exceeded total costs of \$10,000. The TCEQ concludes that the EPA's economic assessment in the CTG document underestimates true cost impact, and no effective environmental benefit in the ozone nonattainment area would result. The controls recommended in the Fiberglass Boat Manufacturing Materials CTG specifically target small businesses, and cost impact to small businesses must be weighed more heavily than the cost impact to larger businesses. Based on this analysis, the TCEQ has determined that the potential cost impact to small businesses is not reasonable or feasible considering the lack of environmental benefit.

### 3.3.3. Miscellaneous Industrial Adhesives

The TCEQ is not making a RACT determination at this time regarding the Miscellaneous Industrial Adhesives CTG recommendations. As similar to the TCEQ's assessment regarding the Industrial Cleaning Solvents CTG, the TCEQ's initial assessment of this CTG again indicates that the EPA substantially underestimated the scope and potential impact of CTGs for these sources. An evaluation of the technological and economic feasibility is integral to determining whether a control technology or measure represents RACT, but making the determination is impossible when applicability of the measure is ambiguous. The TCEQ will continue to evaluate this CTG and intends to provide small business outreach to engage stakeholders and others potentially impacted by the suggested control measures. A RACT determination for this source category will be made after adequate stakeholder input has been received and upon TCEQ determination of impact to small businesses, technological and economical feasibility of the recommendations, and practical enforceability of the CTG.

### 3.3.4. Miscellaneous Metal and Plastic Parts Coatings

In the previously mentioned letter dated December 8, 2008, the TCEQ requested clarification from the EPA regarding several issues related to the Miscellaneous Metal and Plastic Parts Coatings CTG. The current TCEQ rules in Chapter 115 for these coating operations are based directly on original CTG recommendations issued by the EPA in 1978. Several of the recommended VOC content limits for specific coatings categories listed in the 2008 CTG are less

stringent than the more general VOC content limits specified in the EPA's original recommendations for these categories. Since the 2008 CTG document does not specifically address this issue, the TCEQ requested clarification to ensure that implementing the 2008 CTG would not be backsliding and to be certain that the TCEQ has all information needed to appropriately determine whether the 2008 recommendations represent RACT for Texas. See Attachment 1 for the TCEQ letter to the EPA requesting clarification on these issues.

As of September 4, 2009, the EPA has not responded to the TCEQ request for clarification on the CTG recommendations. Therefore, the TCEQ is not making a determination until the EPA provides clarification to the issues identified by the TCEQ and the TCEQ evaluates the CTG recommendations in context with the EPA's response.

APPENDIX A

Dallas-Fort Worth Reasonably Available Control Technology Analysis Update

**Attachment 1**

**December 8, 2008, Letter to Mr. William T. Harnett, Director, Air Quality Policy Division,  
United States Environmental Protection Agency on issues related to  
Control Technique Guidelines documents**

Buddy Garcia, *Chairman*  
Larry R. Soward, *Commissioner*  
Bryan W. Shaw, Ph.D., *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

December 8, 2008

Mr. William T. Harnett, Director, Air Quality Policy Division  
Office of Air Quality Planning and Standards Organization  
United States Environmental Protection Agency  
Mail Drop C504-01  
Research Triangle Park, North Carolina 27711

Dear Director Harnett:

The Texas Commission on Environmental Quality (TCEQ), Air Quality Division is currently reviewing the Consumer and Commercial Products Group II, Group III, and Group IV Control Techniques Guidelines (CTG) documents released by the United States Environmental Protection Agency (EPA) from 2006 through 2008. Our evaluation of these CTG documents has prompted several questions regarding the CTG documents for Large Appliance Coatings, Metal Furniture Coatings, and Miscellaneous Metal and Plastic Parts Coatings. The issues and questions related to these CTG documents are detailed below.

Texas' existing rules in 30 Texas Administrative Code (TAC) Chapter 115 for controlling volatile organic compound (VOC) emissions from the surface coating of large appliances<sup>1</sup>, metal furniture<sup>2</sup>, and miscellaneous metal parts and products<sup>3</sup> were based on the EPA's Office of Air Quality Planning and Standards (OAQPS) corresponding 1977 and 1978 Guideline Series<sup>4</sup> (GS) recommendations. The existing emission standards for surface coating of large appliances and metal furniture are not specific to coating types; however, the 2007 CTG documents for Large Appliance Coatings<sup>5</sup> and Metal Furniture Coatings<sup>6</sup> recommend setting coating type specific emission standards. Some of the recommended emissions standards are equivalent or more stringent than the existing generic standards while some recommended emission standards are less stringent than the existing standards. Similarly, the 2008 CTG for Miscellaneous Metal and Plastic Parts Coatings<sup>7</sup> also recommends emission standards for certain coating types that are less stringent than the existing 30 TAC Chapter 115 emission standards. Please see the enclosed table for a more detailed comparison of the existing VOC emission standards based on the 1977 and 1978 GS recommendations (and TCEQ rules) versus the 2007 and 2008 CTG documents for these categories.

Since some of the limits recommended for these specific coating types are less stringent than the existing emission standards based on the EPA's original GS recommendations, TCEQ's Air Quality Division has

Mr. William T. Harnett  
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concerns that implementing the new CTG recommendations could be perceived as backsliding. In addition, these discrepancies may make it impossible for TCEQ staff to determine if actual VOC reduction benefit would occur from implementing the CTG recommendations. Given the limited explanation<sup>8</sup> of how these differences should be considered in light of the original GS standards, the TCEQ Air Quality Division is requesting written guidance to clarify the intent of the EPA's new CTG recommendations with regard to the following issues.

1. Specific clarification is needed that implementing the recommendations in the new CTG would not be considered backsliding.
2. Are the coating type categories in the new CTG considered by the EPA to be coating types that were unregulated by the original GS recommendations or is this a situation where these specific coatings were covered under the original guidance, but the EPA has re-evaluated what is technically feasible for these specialty coating types? What data was used to make this determination?
3. In light of the varying stringency of the recommended coating standards in these new CTG documents, how did the EPA determine the overall reduction benefit? Additional information, beyond what is provided in the docket, is necessary for the state to determine whether implementing the CTG recommendations will result in a net VOC reduction in the specific nonattainment areas where these CTG recommendations would be implemented.

The EPA's clarification regarding these issues is critical for the Air Quality Division to complete our evaluation of the CTG recommendations and proceed with any recommendation to TCEQ's executive management and the commission regarding the potential implementation of the EPA's CTG recommendations. Therefore, your expeditious response regarding these issues is greatly appreciated. You may contact me at 512-239-4696.

Sincerely,



*S* Susana M. Hildebrand, P.E.  
Director, Air Quality Division  
Texas Commission on Environmental Quality

SMH/LA/sy

Enclosures:   References  
                  Emission Limit Comparison Table

cc: Mr. Guy Donaldson, EPA Region 6  
      Ms. Ellen Belk, EPA Region 6  
      Mr. Bruce Moore, EPA, Office of Air Quality Planning and Standards  
      Mr. Bill Johnson, EPA, Office of Air Quality Planning and Standards

Enclosure: References

- 1: Title 30 TAC §115.421(a)(1), Emission Specifications for Large Appliance Coating (Amended January 17, 2003).
- 2: Title 30 TAC §115.421(a)(2), Emission Specifications for Metal Furniture Coating (Amended January 17, 2003).
- 3: Title 30 TAC §115.421(a)(9)(A), Emission Specifications for Miscellaneous Metal Parts and Products Coating (Amended January 17, 2003).
- 4: Guideline Series. Control of Volatile Organic Emissions from Existing Stationary Sources - Volume V: Surface Coating of Large Appliances, Publication number EPA-450/2-77-0.34.  
Guideline Series. Control of Volatile Organic Emissions from Existing Stationary Sources - Volume III: Surface Coating of Metal Furniture, Publication number EPA-450/2-77-032.  
Guideline Series. Control of Volatile Organic Emissions from Existing Stationary Sources - Volume VI: Surface Coating of Miscellaneous Metal Parts and Products, Publication number EPA-450/2-78-015.
- 5: Control Techniques Guidelines for Large Appliance Coatings. Publication number EPA 453/R-07-004.
- 6: Control Techniques Guidelines for Metal Furniture Coatings. Publication number EPA 453/R-07-005.
- 7: Control Techniques Guidelines for Miscellaneous Metal and Plastic Parts Coatings. Publication number EPA 453/R-08-003.
- 8: EPA Docket Number EPA-HQ-OAR-2007-0329-0009 and EPA Docket Number EPA-HQ-OAR-2007-0334-0010.

Enclosure: Emission Limit Comparison Table

<b>Comparison of 30 TAC Chapter 115 Emission Limits and 2006-2008 CTG Recommended Emission Limits</b>			
<b>Coating Type*</b>	<b>Chapter 115 Emission Limit**</b>	<b>CTG Recommended Emission Limit**</b>	
		<b>Baked Coating</b>	<b>Air-Dried Coating</b>
<b>Large Appliance Coating</b>			
General, One Component	2.8	2.3	2.3
General, Multi-Component	2.8	2.3	2.8
Extreme High Gloss	2.8	3.0	2.8
Extreme Performance	2.8	3.0	3.5
Heat Resistant	2.8	3.0	3.5
Metallic	2.8	3.5	3.5
Pretreatment Coatings	2.8	3.5	3.5
Solar Absorbent	2.8	3.0	3.5
<b>Metal Furniture Coating</b>			
General, One Component	3.0	2.3	2.3
General, Multi-Component	3.0	2.3	2.8
Extreme High Gloss	3.0	3.0	2.8
Extreme Performance	3.0	3.0	3.5
Heat Resistant	3.0	3.0	3.5
Metallic	3.0	3.5	3.5
Pretreatment Coatings	3.0	3.5	3.5
Solar Absorbent	3.0	3.0	3.5
<b>Miscellaneous Metal Parts and Products Coating</b>			
General One Component	3.0	2.3	2.8
General Multi Component	3.0	2.3	2.8
Camouflage	3.0	3.5	3.5
Electric-Insulating Varnish	3.0	3.5	3.5
Etching Filler	3.0	3.5	3.5
Extreme High-Gloss	3.0	3.0	3.5
Extreme Performance	3.5	3.0	3.5
Heat-Resistant	3.5	3.0	3.5
High Performance Architectural	3.0	6.2	6.2
High Temperature	3.0	3.5	3.5
Metallic	3.0	3.5	3.5
Military Specification	3.0	2.3	2.8
Mold-Seal	3.0	3.5	3.5
Pan Backing	3.0	3.5	3.5
Prefabricated Architectural Multi-Component	3.0	2.3	3.5
Prefabricated Architectural One-Component	3.0	2.3	3.5
Pretreatment Coatings	3.0	3.5	3.5
Repair and Touchup	3.0	3.0	3.5
Silicone Release	3.0	3.5	3.5
Solar-Absorbent	3.0	3.0	3.5

**Comparison of 30 TAC Chapter 115 Emission Limits and 2006-2008 CTG Recommended Emission Limits**

Coating Type*	Chapter 115 Emission Limit**	CTG Recommended Emission Limit**	
		Baked Coating	Air-Dried Coating
Vacuum-Metalizing	3.0	3.5	3.5
Drum Coating, New, Exterior	3.0	2.8	2.8
Drum Coating, New, Interior	4.3	3.5	3.5
Drum Coating, Reconditioned, Exterior	3.0	3.5	3.5
Drum Coating, Reconditioned, Interior	4.3	4.2	4.2

\* The CTG recommended emission limits for coating types listed in red font are less stringent than existing Chapter 115 limits.

\*\* Limit expressed in pounds per gallon of coating (minus water and exempt solvent) delivered to the application system.

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