

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R06-OAR-2007-0524; FRL-_____]

**Approval and Promulgation of Air Quality Implementation Plans; Texas; Attainment
Demonstration for the Dallas/Fort Worth 1997 8-Hour Ozone Nonattainment Area**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to conditionally approve the 1997 8-hour ozone attainment demonstration State Implementation Plan (SIP) revision for the Dallas/Fort Worth moderate 8-hour ozone nonattainment area (DFW area) submitted by the State of Texas on May 30, 2007 and supplemented on April 23, 2008. We are also proposing to approve the associated attainment Motor Vehicle Emissions Budgets (MVEBs), the Reasonably Available Control Measures (RACM) demonstration, and two local control measures relied upon in the attainment demonstration. The proposed approval of the attainment demonstration is conditioned on Texas adopting and submitting to EPA prior to March 2009, a complete SIP revision to limit the use of Discrete Emission Reduction Credits (DERCs), beginning in March 2009. Final conditional approval of the DFW 1997 8-hour ozone attainment demonstration SIP is contingent upon Texas adopting and submitting to EPA an approvable SIP revision for the attainment demonstration SIP's failure-to-attain contingency measures plan that meets section 172(c)(9) of the Clean Air Act (the Act).

We also are proposing to fully approve the DFW area SIP as meeting the Reasonably Available Control Technology (RACT) requirement for volatile organic compounds (VOCs). EPA is proposing these actions in accordance with section 110 and part D of the Act and EPA's regulations.

DATES: Comments must be received on or before [insert date 30 days from date of publication in the Federal Register].

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R06-OAR-2007-0524, by one of the following methods:

- Federal Rulemaking Portal: <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.
- U.S. EPA Region 6 "Contact Us" web site: <http://epa.gov/region6/r6coment.htm>. Please click on "6PD" (Multimedia) and select "Air" before submitting comments.
- E-mail: Mr. Guy Donaldson at donaldson.guy@epa.gov. Please also send a copy by email to the person listed in the FOR FURTHER INFORMATION CONTACT section below.
- Fax: Mr. Guy Donaldson, Chief, Air Planning Section (6PD-L), at fax number 214-665-7263.
- Mail: Mr. Guy Donaldson, Chief, Air Planning Section (6PD-L), Environmental Protection Agency, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733.
- Hand or Courier Delivery: Mr. Guy Donaldson, Chief, Air Planning Section (6PD-L), Environmental Protection Agency, 1445 Ross Avenue, Suite 1200, Dallas, Texas 75202-2733.

Such deliveries are accepted only between the hours of 8:00 a.m. and 4:00 p.m. weekdays except for legal holidays. Special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA-R06-OAR-2007-0524. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at www.regulations.gov, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit through www.regulations.gov or e-mail, information that you consider to be CBI or otherwise protected. The www.regulations.gov website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through www.regulations.gov, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

Docket: All documents in the docket are listed in the www.regulations.gov index. Although

listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the Air Planning Section (6PD-L), Environmental Protection Agency, 1445 Ross Avenue, Suite 700, Dallas, Texas 75202-2733.

The file will be made available by appointment for public inspection in the Region 6 FOIA Review Room between the hours of 8:30 a.m. and 4:30 p.m. weekdays except for legal holidays.

Contact the person listed in the FOR FURTHER INFORMATION CONTACT paragraph below to make an appointment. If possible, please make the appointment at least two working days in advance of your visit. There will be a fee of 15 cents per page for making photocopies of documents. On the day of the visit, please check in at the EPA Region 6 reception area at 1445 Ross Avenue, Suite 700, Dallas, Texas.

The State submittal, which is part of the EPA record, is also available for public inspection at the State Air Agency listed below during official business hours by appointment: Texas Commission on Environmental Quality, Office of Air Quality, 12124 Park 35 Circle, Austin, Texas 78753.

FOR FURTHER INFORMATION CONTACT: Ms. Carrie Paige, Air Planning Section (6PD-L), Environmental Protection Agency, Region 6, 1445 Ross Avenue, Suite 700, Dallas, Texas 75202-2733, telephone (214) 665-6521; fax number 214-665-7263; e-mail address paige.carrie@epa.gov.

SUPPLEMENTARY INFORMATION: Throughout this document, “we,” “us,” and “our” means EPA.

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- I. What has the State Submitted?**

On May 30, 2007, Texas submitted a plan designed to attain the 8-hour National Ambient Air Quality Standard (NAAQS) for ozone adopted in 1997 (the 1997 8-hour ozone standard). Texas supplemented this submission with additional information in a letter dated April 23, 2008.

The attainment demonstration relies on a variety of controls on minor and major stationary sources and controls on mobile source emissions. The emissions reductions are achieved through a combination of Federal, State and Local measures. These measures are projected to reduce emissions of NO_x, a precursor to ozone formation, in the DFW area by over 50% from 1999 levels. Some of the measures that have been relied on in this demonstration are being reviewed in this Federal Register (FR). Many are being reviewed or have been reviewed in other FR notices. All of the measures that are relied on in the plan must be approved before we can finalize our approval. The Texas Commission on Environmental Quality (TCEQ) used photochemical modeling and other corroborative evidence to predict the improvement in ozone levels that will occur due to these controls while taking into account the growth in the DFW area.

The State's submission does not directly address the new ozone standard issued March 12, 2008. The new ozone standard is more protective and will require further reductions to attain, but the Texas plan will provide progress toward this new standard.

II. What Action is EPA Proposing?

The EPA is proposing to conditionally approve the 1997 8-hour ozone attainment demonstration SIP revision for the DFW area (8-hour DFW SIP) submitted on May 30, 2007 and supplemented on April 23, 2008. This submittal provides photochemical modeling, corroborative analyses, additional control measures not explicitly accounted for in the photochemical modeling, and a combination of adopted Federal, State, and local measures to demonstrate that the DFW area will attain the 1997 8-hour ozone standard by June 15, 2010. It also includes, as part of the attainment demonstration SIP, an attainment MVEB, a RACM

analysis, and control measures. In today's action, we are proposing to approve two local measures relied upon in the attainment demonstration – the Voluntary Mobile Source Emission Reduction Program (VMEP) and Transportation Control Measures (TCMs); we are proposing to adopt the attainment MVEBs into the DFW SIP; and we are proposing to approve the demonstration that all RACM have been adopted for the DFW area. Finally, in today's action, EPA also is proposing to fully approve the VOC RACT submissions for both the 1-hour and the 1997 8-hour ozone standards.

A. What Must Happen Before we can Finalize Conditional Approval?

Before finalizing conditional approval of the attainment demonstration SIP, we must fully approve all of the control measures relied on in the attainment demonstration and the Reasonable Further Progress (RFP) Plan. In the 8-hour DFW SIP, the State included new NO_x emissions reductions measures and rules (found in Title 30 of the Texas Administrative Code, Chapter 117 - denoted 30 TAC 117 or Chapter 117), a VMEP, and TCMs. The revisions to Chapter 117 include NO_x reductions from the following sources: Industrial, Commercial, and Institutional (ICI) Sources, Minor Sources, Electric Generating Facilities (EGFs), Cement Kilns and East Texas Combustion Sources. The measures in the 8-hour DFW SIP also include rules that were adopted under the 1-hour ozone standard, which have been extended to the larger 8-hour ozone nonattainment area (NAA). These previously adopted rules were approved in earlier actions and are listed in Section V-C of today's rulemaking. In separate rulemakings, we are proposing to approve the 2007 RFP SIP and the remaining control measures including NO_x controls submitted on May 30, 2007, for point and area sources, which include ICI Sources, EGFs, Minor

Sources, Cement Kilns and East Texas Combustion Sources. We will also take action on other emissions reduction measures submitted on May 13, 2005, which include the April 9, 2003 Alcoa Federal consent decree, an Energy Efficiencies Program and NOx rules.

A description of all the measures that must be approved by EPA before any final approval of the attainment demonstration SIP is in Section V of today's action.

In addition, we cannot finalize the proposed conditional approval until Texas submits an approvable SIP revision to satisfy the section 172(c)(9) requirement for contingency measures that would be triggered if the area fails to attain the 8-hour ozone standard by its attainment date. This SIP revision (the contingency for final conditional approval) must be a complete approvable failure-to-attain contingency measures plan. Texas has committed to adopt and submit a plan that relies upon three VOC SIP rules for Offset Lithographic Printing; Degassing or Cleaning of Stationary, Marine and Transport Vessels; and Petroleum Dry Cleaning, as well as fleet turnover from mobile sources after 2009 as contingency measures. These measures are more fully described in a commitment letter submitted by the State, dated June 13, 2008 (this letter is in the docket for this action). If the State submits a complete failure-to-attain contingency measures plan that relies upon the four above-noted control measures, EPA could proceed with a final conditional approval of the attainment demonstration SIP. Any comments concerning whether these four measures are sufficient to meet the failure-to-attain contingency measure requirement should be raised at this time. EPA does not plan to provide an additional opportunity for comment unless the State modifies these measures or submits a failure-to-attain contingency measures plan relying on other measures.

III. Why is this Proposed Approval Conditional and What are the Implications of a Conditional Approval?

Our proposed approval of the attainment demonstration SIP is conditional because the attainment demonstration submitted in May 2007 relies upon unlimited usage of DERCS, whereas the April 2008 supplemented attainment demonstration relies upon a limited usage of DERCS; as yet there is no State rule implementing this change. The condition is based on a commitment by the State of Texas to adopt and submit by March 1, 2009, a complete SIP revision that includes an enforceable mechanism that would allow no more than 3.2 tons per day (tpd) of DERCS to be used in 2009 in the DFW area. If Texas intends to allow for more than 3.2 tpd of DERCS to be used beginning January 1, 2010, then the SIP revision must also provide appropriate limits on the use of DERCS and a detailed justification explaining how the future adjustments to the allowed DERC usage will be consistent with continued attainment of the 8-hour ozone standard. The justification must provide sufficient detail such that the public can be assured that attainment will continue to be projected in future years. For further explanation of the limitation on DERCS, see Section V-D.

Under section 110(k) of the Act, EPA may conditionally approve a plan based on a commitment from the State to adopt specific enforceable measures within one year from the date of approval. The TCEQ submitted a commitment letter to EPA committing to adopt and submit to EPA by March 1, 2009, a SIP revision addressing the DERC restrictions for 2009 and addressing the use of DERCS in subsequent years. This letter, dated June 13, 2008, is in the docket for this action.

If EPA issues a final conditional approval of the SIP before March 1, 2009 and Texas

subsequently fails to adopt and submit the DERC SIP revision as committed to in its letter, EPA will issue a letter to the State converting the conditional approval of the 1997 8-hour ozone DFW attainment demonstration SIP to a disapproval. Such disapproval will start the 18-month clock for sanctions in accordance with section 179(b) and 40 CFR 52.31 and the 2-year clock for a Federal Implementation Plan (FIP) under section 110(c). EPA would publish in the FR a notice regarding the disapproval of the SIP and the start of sanctions and FIP clocks for the DFW area, and would revise the provisions in the Code of Federal Regulation (CFR) to reflect the disapproval of the SIP.

The State anticipates the DERC and contingency measure SIP revisions to be proposed for public review and comment in Summer 2008, and final adoption of the revisions is expected early in 2009 in order to meet the commitment to submit the revisions to EPA by March 1, 2009. If EPA finds that the submitted DERC SIP rule is approvable, we will propose approval of the rule and could proceed with final full approval of the attainment demonstration. Final conditional approval of the attainment demonstration SIP would remain in effect until EPA takes final action to convert the conditional approval to a full approval or disapproval of the attainment demonstration. If EPA cannot fully approve the revision concerning the use of DERCs in the DFW area, EPA will propose disapproval of the submitted SIP rule and the attainment demonstration SIP for the DFW area. The 18-month clock for sanctions and the 2-year clock for a FIP start on the date of final disapproval.

IV. Background.

A. What are the National Ambient Air Quality Standards?

Section 109 of the Act requires EPA to establish National Ambient Air Quality Standards (NAAQS or standards) for pollutants that “may reasonably be anticipated to endanger public health and welfare,” and to develop a primary and secondary standard for each NAAQS. The primary standard is designed to protect human health with an adequate margin of safety, and the secondary standard is designed to protect public welfare and the environment. EPA has set NAAQS for six common air pollutants, referred to as criteria pollutants: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. These standards present state and local governments with the minimum air quality levels they must meet to comply with the Act. Also, these standards provide information to residents of the United States about the air quality in their communities.

B. What is a SIP?

The SIP is a set of air pollution regulations, control strategies, other means or techniques, and technical analyses developed by the state, to ensure that the state meets the NAAQS. The SIP is required by section 110 and other provisions of the Act. These SIPs can be extensive, containing state regulations or other enforceable documents and supporting information such as emissions inventories, monitoring networks, and modeling demonstrations. Each state must submit these regulations and control strategies to EPA for approval and incorporation into the federally-enforceable SIP. Each Federally-approved SIP protects air quality primarily by addressing air pollution at its point of origin.

C. What is Ozone and Why do we Regulate it?

Ozone is a gas composed of three oxygen atoms. Ground level ozone is generally not emitted directly from a vehicle's exhaust or an industrial smokestack, but is created by a chemical reaction between NOx and VOCs in the presence of sunlight and high ambient temperatures. Thus, ozone is known primarily as a summertime air pollutant. NOx and VOCs are precursors of ozone. Motor vehicle exhaust and industrial emissions, gasoline vapors, chemical solvents and natural sources emit NOx and VOCs. Urban areas tend to have high concentrations of ground-level ozone, but areas without significant industrial activity and with relatively low vehicular traffic are also subject to increased ozone levels because wind carries ozone and its precursors hundreds of miles from their sources.

Repeated exposure to ozone pollution may cause lung damage. Even at very low concentrations, ground-level ozone triggers a variety of health problems including aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses like pneumonia and bronchitis. It can also have detrimental effects on plants and ecosystems.

D. Background of the Texas SIP for the DFW Area.

The original Texas SIP was submitted to EPA by the Texas Air Control Board (renamed twice and known today as the TCEQ), on January 31, 1972. On May 31, 1972, EPA conditionally approved the SIPs for all states in Volume 37 of the FR beginning on page 10842 (denoted 37 FR 10842). The Texas SIP was conditionally approved (37 FR 10842, 10895) and the status of the Texas SIP was codified in Title 40, Part 52 of the US Code of Federal

Regulations (denoted 40 CFR 52), Subpart SS, sections 52.2270 to 52.2280. Since 1972, many revisions for the DFW area have been submitted by the State and approved by EPA. These include numerous control measures implemented under the 1-hour ozone standard to reduce NOx and VOC emissions from area, point and mobile sources; the Post-1996 Rate-of-Progress (ROP) Plan; and the 15% ROP Plan. As a result of the implementation of these measures, the area's 1-hour ozone values have declined significantly in the past several years; the 2004-2006 1-hour design value for the DFW area is 124 parts per billion (ppb) and the preliminary¹ 1-hour design value for 2005-2007 is also 124 ppb, which meets the 1-hour standard, although this standard was revoked in 2005.

E. Background of this SIP Revision to Address the 1997 Ozone NAAQS.

On July 18, 1997, EPA promulgated a revised 8-hour ozone standard of 0.08 parts per million (ppm), which is more protective than the previous 1-hour ozone standard (62 FR 38855).² Under EPA regulations at 40 CFR part 50, Appendix I, the 1997 8-hour ozone standard is attained when the 3-year average of the annual fourth highest daily maximum 8-hour average ambient ozone concentrations is less than or equal to 0.08 ppm (i.e., 0.084 ppm when rounding is considered). For ease of communication, many reports of ozone concentrations are given in parts per billion (ppb); $\text{ppb} = \text{ppm} \times 1000$. Thus, 0.084 ppm becomes 84 ppb.

The EPA published the 1997 8-hour ozone designations and classifications on April 30, 2004 (69 FR 23858). The DFW area was designated nonattainment, classified as moderate, and includes nine counties: Collin, Dallas, Denton, and Tarrant counties (these constitute the former

¹ The value is considered preliminary because TCEQ has not certified that it has completed the quality assurance and quality control checks. We expect the data certification by July 1, 2008.

1-hour ozone NAA, hereafter referred to as the core counties), and Ellis, Johnson, Kaufman, Parker and Rockwall counties. The effective date of designation for the 1997 8-hour ozone NAAQS was June 15, 2004. The attainment demonstration for the DFW area was due by June 15, 2007 and was submitted on time. The attainment date for the DFW area is June 15, 2010.

EPA also published the first rule governing implementation of the 8-hour ozone standard (Phase 1 Rule) on April 30, 2004 (69 FR 23951). The Phase 1 Rule addresses classifications for the 8-hour NAAQS; revocation for the 1-hour NAAQS; how anti-backsliding principles will ensure continued progress toward attainment of the 8-hour NAAQS; attainment dates; and the timing of emissions reductions needed for attainment.

On December 22, 2006, the U.S. Court of Appeals for the District of Columbia Circuit vacated EPA's Phase 1 Rule in *South Coast Air Quality Management Dist. v. EPA*, 472 F.3d 882 (D.C. Cir. 2006). On June 8, 2007, in response to several petitions for rehearing, the court modified the scope of vacatur of the Phase 1 Rule. See 489 F.3d 1245 (D.C. Cir. 2007), *cert. denied*, 128 S.Ct. 1065 (2008). The Court vacated those portions of the Phase 1 Rule that provide for regulation of the 1997 8-hour ozone NAAQS in some nonattainment areas under Subpart 1 in lieu of Subpart 2 and that allowed areas to revise their SIPs to no longer require certain programs as they applied for purposes of the 1-hour NAAQS; new source review, section 185 penalties, and contingency plans for failure to meet RFP and attainment milestones. The decision does not affect the requirements for areas classified under subpart 2, such as the DFW area, to submit an attainment demonstration plan for 1997 8-hour ozone NAAQS and to attain the NAAQS no later than the outside date for attainment required for the area's classification.

² EPA issued a revised 8-hour ozone standard on March 27, 2008 (73 FR 16436). The designation and implementation process for that standard is just starting and does not affect EPA's action here.

EPA published a second rule governing implementation of the 8-hour ozone standard (Phase 2 Rule) on November 29, 2005 (70 FR 71612), as revised on June 8, 2007 (72 FR 31727).

The Phase 2 Rule addresses, among other things, the following control and planning obligations as they apply to areas designated nonattainment for the 1997 8-hour ozone NAAQS: RACT, RACM, photochemical modeling, and attainment demonstrations. EPA issued the Phase 2 Rule so States and Tribes would know how these statutory control and planning obligations apply and when SIP revisions are due for these obligations so that the States could develop timely submissions consistent with the statutory obligations and attain the NAAQS as expeditiously as practicable, but no later than the attainment dates specified for each area's classification.

Litigation on the Phase 2 Rule is pending before the D.C. Circuit Court of Appeals.

On May 23, 2007, the TCEQ approved revisions to the SIP for the DFW 8-hour ozone nonattainment area. The SIP revisions were submitted to EPA on May 30, 2007 and supplemented on April 23, 2008. Today we are addressing the 1997 8-hour ozone attainment demonstration SIP for the DFW area and a RACT finding for both the 1-hour and 1997 8-hour ozone standards.

F. What is an Attainment Demonstration?

In general, an ozone attainment demonstration includes a photochemical modeling analysis and other evidence (referred to as "weight of evidence") showing how an area will achieve the standard as expeditiously as practicable, but no later than the attainment date specified for its classification. For purposes of the 8-hour ozone standard, a determination of attainment (or failure to attain) is based on the most recent three complete years of data prior to

the area's attainment date. Thus, since the DFW moderate area has a maximum attainment date of June 15, 2010, the most recent three years of data for determining attainment in the DFW area will be from the three preceding calendar years, i.e., the air quality monitoring data from 2007, 2008 and 2009. Alternatively, an area may qualify for up to two one-year extensions. The first extension can be granted if the area's 4th highest daily 8-hour average is 0.084 ppm or less. The second can be granted if the 4th highest value averaged over the attainment year and the extension year is 0.084 ppm or less (40 CFR 51.907).

To demonstrate attainment, an area must predict that emissions during the ozone season preceding the attainment date will meet the standard. EPA requires areas to implement all the measures necessary to demonstrate attainment as expeditiously as practicable, but no later than the start of the final complete ozone season preceding the area's attainment date (40 CFR 51.908). The DFW area's ozone season runs from March 1st through October 31st (62 FR 30270, June 3, 1997 and 40 CFR Part 58, Appendix D); therefore, all of the control strategies relied upon in the attainment demonstration must be implemented by March 1, 2009.

In addition to the approvable modeling and weight of evidence components of an attainment demonstration SIP, for the attainment demonstration SIP to be approvable, it must contain the following elements which must also be approved: attainment MVEBs for transportation conformity purposes; the measures relied on as necessary to demonstrate attainment; RACM; an RFP plan and the RFP/failure-to-attain contingency measures requirements for the area. (*See Sierra Club v. EPA*, 294 F.3d 155, 163 (D.C. Cir. 2002).

V. Evaluation of the DFW 1997 8-hour Ozone Attainment Demonstration SIP.

Below, we discuss the statutory and regulatory requirements that prescribe our review of the State's attainment demonstration, the elements in the State's submittal, and our evaluation of those elements comprising the attainment demonstration SIP. Separate from our review of the State's attainment demonstration SIP is our review of the State's VOC RACT demonstration, and we discuss the VOC RACT statutory and regulatory requirements in Section VI.

A. Legal Requirements for Approval.

The Act requires SIPs for nonattainment areas to demonstrate that the area will attain the 8-hour ozone standard as expeditiously as practicable, but no later than outside dates established by the Act. The Phase 2 Rule provides timing and guidance for this requirement for the 1997 8-hour ozone standard and identifies the modeling guidance available to make the demonstration. Moderate 1997 8-hour ozone nonattainment areas must attain the standard no later than June 15, 2010. An attainment demonstration SIP must include technical analyses to locate and identify sources of emissions that are causing violations of the NAAQS within nonattainment areas; adopted measures with schedules for implementation and other means and techniques necessary and appropriate for attainment; and contingency measures required under section 172(c)(9) of the Act that can be implemented without further action by the State or the Administrator to cover failures to meet RFP milestones and/or attainment. The attainment demonstration SIP must include a demonstration that the area is meeting RACM. An attainment demonstration SIP must also identify MVEBs for transportation conformity purposes. EPA's regulations at 40 CFR 51.908(c) specifically require that areas classified as moderate and above submit a modeled

attainment demonstration based on a photochemical grid modeling evaluation or any other analytical method determined by the Administrator to be at least as effective as photochemical modeling. Section 51.908(c) also requires each attainment demonstration to be consistent with the provisions of section 51.112, including Appendix W to 40 CFR part 51 (i.e., "EPA's Guideline on Air Quality Models," 68 FR 18440, April 15, 2003). See also EPA's "Guidance on the Use of Models and Other Analyses in Attainment Demonstrations for the 8-hour Ozone NAAQS," October 2005 and "Guidance on the Use of Models and Other Analyses for Air Quality Goals in Attainment Demonstrations for Ozone, PM_{2.5}, and Regional Haze," April 2007 (hereafter referred to as "EPA's 2005 and 2007 A.D. guidance documents"), which describe criteria that an air quality model and its application should meet to qualify for use in an 8-hour ozone attainment demonstration. For the detailed review of modeling and the Weight of Evidence (WOE) analyses and EPA's conclusions on the DFW 8-hour Ozone Attainment Demonstration see the "Modeling and Other Analyses Attainment Demonstration" (MOAAD) Technical Support Document (TSD). The MOAAD TSD also includes a complete list of applicable modeling guidance documents. These guidance documents provide the overall framework for the components of the attainment demonstration, how the modeling and other analyses should be conducted, and overall guidance on the technical analyses for attainment demonstrations.

As with any predictive tool, there are inherent uncertainties associated with photochemical modeling. EPA's guidance recognizes these limitations and provides approaches for considering other analytical evidence to help assess whether attainment of the NAAQS is likely. This process is called a WOE determination. EPA's modeling guidance (updated in 1996,

1999, and 2002) discusses various WOE approaches. EPA's modeling guidance has been further updated in 2005 and 2007 for the 1997 8-hour attainment demonstration procedures to include a WOE analysis as an integral part of any attainment demonstration. This guidance strongly recommends that all attainment demonstrations include supplemental analyses beyond the recommended modeling. These supplemental analyses would provide additional information such as data analyses, and emissions and air quality trends, which would help strengthen the overall conclusion from the photochemical modeling. A WOE analysis is specifically recommended to be included as part of any attainment demonstration SIP where the modeling results predict Future Design Values (FDVs) ranging from 82 to less than 88 ppb (EPA's 2005 and 2007 A.D. guidance documents). EPA's interpretation of the Act to allow a WOE analysis has been upheld. See *1000 Friends of Maryland v. Browner*, 265 F. 3d 216 (4th Cir. 2001) and *BCCA Appeal Group v. EPA*, 355 F.3d 817 (5th Cir. 2003).

Since much of TCEQ's initial work was conducted prior to the 2005 guidance document, the earlier draft 1999 modeling guidance document (EPA-454/R-99-004, May 1999; "DRAFT Guidance on the Use of Models and Other Analyses in Attainment Demonstrations for the 8-Hour Ozone NAAQS") was also used by TCEQ and EPA prior to the October 2005 guidance issuance. There are two main changes compared to EPA's modeling attainment demonstration guidance issued in 1991. First, EPA recommends a modeled attainment test in which model predictions are used in a relative rather than absolute sense. Second, the role of the WOE determination, when used, has been expanded. That is, where the use of WOE was previously considered optional, it is now strongly recommended as an integral part of an attainment demonstration in addition to the modeled attainment test.

TCEQ submitted the DFW attainment demonstration SIP with photochemical modeling and WOE analyses. The results of the photochemical modeling and WOE analyses are discussed below in Subsection B. The projected growth rates and emissions reductions (or increases) for the control measures and other means relied upon in the modeling are discussed in Subsection C.

B. Eight-Hour Attainment Demonstration Modeling and Weight of Evidence.

a. What were the Results of the Photochemical Modeling Attainment Demonstration?

i. What is a Photochemical Grid Model?

Photochemical grid models are the state-of-the-art method for predicting the effectiveness of control strategies in reducing ozone levels. The models use a three-dimensional grid to represent conditions in the area of interest. TCEQ chose to use the Comprehensive Air Model with Extensions (CAMx), Version 4.31 photochemical model for this attainment demonstration SIP. The model is based on well-established treatments of advection, diffusion, deposition, and chemistry. Another important feature is that NO_x emissions from large point sources can be treated with the plume-in-grid sub-model that helps avoid the artificial diffusion that occurs when point source emissions are inserted into a grid volume. The use of the newer version improves the plume dispersion algorithms and adds full NO_x and VOC chemistry in the plumes. TCEQ has used the CAMx model in other SIPs and EPA has approved many SIPs using CAMx based modeling analyses. Part 51 Appendix W indicates that photochemical grid models should be used for ozone SIPs and lists a number of factors to be considered in selecting a photochemical grid model to utilize. EPA has reviewed TCEQ reasons for selecting CAMx and EPA agrees with the choice by TCEQ to utilize CAMx for this SIP.

In this case, TCEQ has developed a grid system that consists of three nested grids. The outer grid stretches from west of Austin to Maine and parts of the Atlantic Ocean to the east, and from parts of southern Canada in the north to the southern tip of Texas and the Gulf of Mexico on the southern edge. The model uses nested grid cells of 36 km on the outer portions, 12 km in East Texas and portions of nearby States and a 4 kilometer grid cell covering the DFW Nonattainment Area. For more information on the modeling domain, see the MOAAD TSD. The model simulates the movement of air and emissions into and out of the three-dimensional grid cells (advection and dispersion); mixes pollutants upward and downward among layers; injects new emissions from sources such as point, area, mobile (both on-road and nonroad), and biogenic into each cell; and uses chemical reaction equations to calculate ozone concentrations based on the concentration of ozone precursors and incoming solar radiation within each cell. Air quality planners choose historical time period(s) (episode(s)) of high ozone levels to apply the model. Running the model requires large amounts of data inputs regarding the emissions and meteorological conditions during an episode.

Modeling to duplicate conditions during an historical time period is referred to as the base case modeling and is used to verify that the model system can predict historical ozone levels with an acceptable degree of accuracy. It requires the development of a base case inventory, which represents the emissions during the time period for the meteorology that is being modeled. These emissions are used for model performance evaluations. Texas modeled a 1999 episode, so the base case emissions and meteorology are for 1999. If the model can adequately replicate the ozone levels in the base case and responds adequately to diagnostic tests, it can then be used to project the response of future ozone levels to proposed emission control strategies.

ii. What Episode did Texas Choose to Model?

Texas chose an historical episode, August 13-22, 1999, that had been previously used in modeling for the Early Action Compact modeling of the Northeast Texas Area. The episode encompasses ten days with 8-hour ozone exceedances every day, except for the first day which is one of the two spin-up days. The first two days are considered spin-up days that are usually not used in the modeling analysis because it ordinarily takes 1-2 days to work out the initial condition biases. Of the eight days (ten days minus the two spin-up days) that have exceedances, all but one day have multiple monitors with exceedances (2-7 of the nine monitors). On average, the eight exceedance days have four monitors exceeding the standard each day. This episode contains a variety of meteorological conditions which resulted in high concentrations of ozone in the area as measured on both a 1-hour and 8-hour basis, and many of the days had conditions similar to the predominant types of meteorological conditions that yield high ozone in the DFW NAA.

We evaluated Texas' episode selection for consistency with our modeling guidance (1991, Draft 1999, 2005, and 2007 versions). Among items that we considered were the ozone levels during the selected period compared to the Design Value³ (DV) at the time; how did the meteorological conditions during the proposed episode match with the conceptual model of ozone exceedances that drive the area's DV; were enough days modeled; and was the time period selected robust enough to represent the area's problem for evaluating future control strategies. EPA's guidance indicates that all of these items should be considered when evaluating available episodes and selecting episodes to be modeled. EPA believes that the episode from August 13-

³ The design value is the 3-year average of the annual fourth highest daily maximum 8-hour average ozone concentration (40 CFR 50, Appendix I).

22, 1999, is an acceptable episode for development of the 8-hour ozone attainment plan. It has a number of meteorological conditions that match the conditions that yield high ozone in the conceptual model for the DFW NAA, and was among the episode periods evaluated with the highest number of ozone exceedances. In selecting episodes, it is advantageous to select episodes with several exceedance days and with multiple monitors exceeding the standard each day when possible. This episode was among the best episodes for the periods evaluated when the selection was being conducted initially, and also had the benefit that significant work was being conducted for this period for the Early Action Compact for the Tyler/Longview/Marshall area of Northeast Texas. See the MOAAD TSD for further discussion and analysis.

iii. How Well did the Model Perform?

Model performance is a term used to describe how well the model predicts the meteorological and ozone levels in an historical episode. EPA has developed various diagnostic, statistical and graphical analyses that TCEQ has performed to evaluate the model's performance to determine if the model is working adequately to test control strategies. TCEQ has done many analyses of both interim model runs and the final base case model run and deemed the model's performance adequate for control strategy development. As described below, we agree with their assessment.

From 2003 to 2005, several iterations of the modeling were performed incorporating various improvements to the meteorological modeling, the 1999 base case emissions inventory, and other model parameters. These iterations totaled over 40 combinations as TCEQ worked to refine the modeling. EPA reviewed these interim modeling steps and provided comments and suggestions. When TCEQ felt the model performance was acceptable, EPA (Region 6 and the

Office of Air Quality Planning and Standards) and TCEQ had a detailed meeting on February 1, 2005 to cover all aspects of the episode selected and model performance (meteorological, emissions, and photochemical). TCEQ shared a compact disc with detailed statistical and graphical analysis of the different modeling (meteorology and photochemical). This data included analysis of meteorological outputs compared to benchmark statistical parameters that TCEQ previously developed as target values that are being used in many areas of the country. TCEQ also shared graphical analyses of the meteorology. TCEQ also shared extensive analyses of the photochemical modeling for several base case modeling runs that included: diagnostic tests with reductions/increases of precursor emissions, time series of 1-hour and 8-hour ozone, EPA 1-hour statistics, EPA 8-hour statistics, ozone spatial plots, quantile-quantile plots, ozone pre-cursor data, and ozone animations.

After extensive review, EPA was satisfied that the meteorological modeling was meeting most of the statistical benchmarks, and was transporting air masses in the appropriate locations for most of the days of the episode. EPA also conducted a thorough review of the model's performance in predicting ozone and ozone pre-cursors and found that performance was within the recommended 1-hour ozone statistics for almost all days and all statistics. We also evaluated the 8-hour statistics, results of diagnostic and sensitivity tests, and multiple graphical analyses and determined that overall the ozone performance was acceptable for Texas to move forward with future year modeling and development of an attainment demonstration. EPA's acceptance of the modeling is documented in a June 6, 2005 letter.

Subsequently, TCEQ made further minor refinements to the modeling which are discussed in the MOAAD TSD. EPA agrees that after these minor refinements, the overall

model performance remains acceptable. The final base case modeling evaluation, Run 46 using CAMx 4.31, further reduced negative bias and reduced the total errors in the modeling system. EPA agrees that the overall model performance (Run 46) is adequate, but notes that even with the refinements, the modeling still tends to have some bias on the higher ozone days. This bias may make future year assessments conservative, i.e., the amount of ozone reduction predicted is likely less than will actually occur, if the modeling is not fully replicating local ozone generation. See the MOAAD TSD for further analysis.

iv. Once the Base Case is Determined to be Acceptable, How do you Use the Modeling for the Attainment Demonstration?

Once the base case modeling is determined to be consistent with EPA's guidance and acceptable for replicating the ozone levels observed in the 1999 episode period, the modeling can be used as the basis for developing the future year modeling. TCEQ then evaluated the base case emission inventory, and made some minor adjustments to the inventory to account for things that would not be expected to occur again or that were not normal (example: inclusion of EGUs that were not operating due to temporary shutdown during the base case period but were expected to be operating in 2009). This emission inventory is called the 1999 baseline emission inventory. The photochemical model is then executed again to obtain a 1999 baseline model projection.

EPA's guidance recommends using 2002 as the baseline inventory year, but there are several possible methodologies available to calculate baseline design values. For example, if a state models episodes from other years it can project (or back-cast) to 2002 to provide a starting point for future year projections. Alternatively, a state may use a baseline year earlier than 2002 for the following reasons: (1) availability of air quality and meteorological data from an

intensive field study, (2) the desire to use meteorological data that may be “more representative” of typical ozone conditions compared to the baseline design value period, and (3) availability of a past modeling analysis in which the model performed well. Texas chose 1999 as the baseline year. There was extensive air quality and meteorological modeling available for the 1999 episode from Early Action Compact Modeling in Northeast Texas; 1999’s meteorology represented typical ozone conditions. Therefore, EPA and TCEQ weighed the pros and cons and concurred, based upon the above-noted reasons, that it was not necessary to attempt to project to a 2002 baseline emission inventory in this specific case.

The baseline emission inventory is also used as the basis, along with other data, to project and estimate the future case emission inventory along with consideration of any state and Federal regulations that result in emission changes from the 1999 period. Since DFW is classified as a moderate NAA, the attainment deadline is as expeditiously as practicable but no later than June 15, 2010. Any emissions reductions must be implemented no later than the beginning of the previous ozone season; in this case, March 1, 2009, which is the beginning of the final full ozone season preceding the attainment date, if the reductions are to support attainment. The meteorological modeling that has been reviewed and determined to be acceptable for the base case is also used for the meteorological conditions in the future year modeling (no changes are made). The future case modeling uses the base case meteorology and estimated 2009 emissions to assess the impact of economic growth in the region and State and Federal control measures that will become effective during the modeling period from 1999 to March 1, 2009. After the State develops a 2009 future baseline emission inventory, photochemical modeling is conducted to get the 2009 baseline ozone levels. The State then begins conducting modeling sensitivities

and modeling assessments of potential additional emission reductions to aid in the planning of a control strategy that will demonstrate attainment.

The 8-hour ozone modeling guidance changed the attainment test to use the modeling analysis in a relative sense instead of an absolute sense as was done in 1-hour ozone demonstrations. To predict ozone levels in the future, we estimate a value that we refer to as the FDV. First, we need to calculate a Base Design Value (BDV). The BDV is calculated for each monitor that was operating in the base period by averaging the three DVs that include the base year (1999); that would be the DV for 1997-1999, 1998-2000, and 1999-2001 to result in a center-weighted BDV.

To estimate the FDV, a value is also calculated for each monitor that is called the Relative Response Factor (RRF) using the baseline and future modeling. The RRF value is calculated by taking the ratio of the sum of the daily highest 8-hour ozone value predicted around a monitor in 2009 and dividing by the sum of the daily highest 8-hour ozone value predicted around the same monitor in the 1999 baseline analysis. "Around the monitor" for DFW modeling (4km grid) is defined as the 7x7 array of grid cells surrounding the monitor (with the monitor in the middle). EPA's guidance indicates that only days that had a baseline value above a threshold concentration (TCEQ used 70 ppb, which is the minimum value indicated by EPA guidance) should be used in the RRF calculations. For each monitor, EPA recommends adding up all the daily maximum 8-hour ozone values (for days that the maximum 8-hour ozone value in the baseline were above the threshold in the area around the monitor) and dividing that sum by the sum of the daily maximum 8-hour ozone values predicted in 2009 around the monitor. This calculation yields the RRF for that monitor. The RRF is then multiplied by the Base Design

Value (BDV) for that monitor to yield the FDV for that monitor. This step is conducted for each monitor. The modeled values for each monitor may be calculated to the hundredths of a ppb which is rounded to get to tenths of a ppb, which is then truncated to an integer (in ppb) at the end of the process (as recommended by EPA's guidance). The truncated values are included in the tables in this notice (Example: Modeled value of 84.94 is rounded to 84.9 and then truncated to 84; Example 2: Modeled value of 84.95 is rounded to 85.0 and then truncated to 85).

v. What Modeling Approaches were Used for this Attainment Demonstration?

TCEQ submitted photochemical modeling labeled Combo 10 in its attainment demonstration SIP. Combo 10 contains the control measures outlined in Section D, including additional control measures with compliance deadlines of March 1, 2010. The 2010 compliance dates apply to certain rich-burn natural gas fired engines for oil and gas compressors in 33 Texas counties, all of which are outside the DFW NNA. Despite the fact that the controls noted above are not required to be implemented until 2010, Combo 10 assumes that all control measures will be in effect by the beginning of the 2009 ozone season. TCEQ assumed that early compliance would occur as a result of incentive grants for early compliance provided by the State Legislature. Texas SB2000 provides an appropriation of \$4 million to compensate operators of the regulated oil and gas compressors who comply with new emission reduction standards early. There is also a large population of emission units in this category and it is also likely that a percentage of these will be controlled before the 2009 ozone season, or before the beginning of the core part of the ozone season. Due to the large number of emission units in this category and the incentive for early compliance, TCEQ believes these units will provide significant reductions by 2009.

A small portion of the point source NO_x Controls in the DFW NAA, that yield about 2.4 tpd of NO_x reductions, also have 2010 compliance dates. TCEQ did not attempt to assess the potential impact of not having these additional point source reductions in place by the beginning of the 2009 ozone season. The 2.4 tpd of NO_x reductions from these sources is less than 10% of the NO_x emission reductions adopted for the DFW NAA. EPA also notes that some of these 2.4 tpd NO_x reductions are in the western part of the DFW NAA and would not directly affect the modeled impact at the monitors with the highest modeled FDVs (Frisco and Denton monitors) for this episode, but would be expected to help reduce ozone impacts at other monitors in Parker and Tarrant counties that have been added to the DFW area monitoring network since 1999.

For a more complete description of the modeling procedures conclusions and EPA's evaluation of these procedures and conclusions, see the MOAAD TSD in the Docket for this action (EPA-RO6-OAR-2007-0524).

vi. What did the Results of TCEQ's Combo 10 Modeling Show?

The results of modeling the final control strategy runs are shown in Table 1. As previously discussed, the State submitted modeling (Combo 10) that took into account all the reductions from adopted regulations, including those with 2010 compliance dates. TCEQ has proposed an alternative RRF calculation method that calculated a daily RRF for each monitor and then averaged the values to yield the RRF that was multiplied by the BDV to yield the FDV. In the following Table 1, we evaluate the model FDV calculations using both EPA's guidance method for RRF calculation and the alternate RRF calculation approach that TCEQ had developed. Details on the two methods are included in the TSD. For most monitors, the alternate FDV calculations make only minor differences. We have calculated the FDVs in the

following tables using the final truncated numbers in accordance with EPA guidance. Since the TCEQ RRF calculation method did not make significant differences in the FDVs and with the truncation to whole numbers, we have used the TCEQ RRFs for the final assessment with consideration of the FDVs using EPA's RRF method. The results of EPA's RRF method are contained in the MOAAD TSD. Table 1 includes the modeling projections prior to evaluating any other modeling runs, any additional model based projections, and any WOE considerations for the Combo 10 modeling run. Table 1 also includes the results from the two methodologies to calculate the FDVs.

Table 1. June 15, 2007 SIP control strategy modeling projections for 2009.

Monitor	BDV 1999	FDV Combo 10	
		EPA	TCEQ
Frisco	100.3	89	88
Dallas HintonC60	92	85	85
Dallas North C63	93	84	84
Dallas Exec C402	88	78	78
Denton	101.5	88	88
Midlothian	92.5	83	83
Arlington	90.5	80	80
Ft Worth C13	98.3	85	85
Ft Worth C17	96	84	84

The first column is the Base DV for the 1999 period that is used with the modeling RRFs for calculating the FDVs. For Combo 10, the analysis shows that 5 of the 9 monitors are projected to be in attainment (at or below 84 ppb); two monitors (Ft. Worth C13 and Dallas Hinton C60) are projected to be very near attainment with 85 ppb; and projections for the other two monitors are 88 ppb for Denton and 88/89 ppb for the Frisco monitor. As shown in Table 1, the FDVs are on the order of 8-12 ppb less than the Base DVs, which is a large reduction in

ozone levels due to existing State and Federal measures and the newly adopted measures.

For a more complete description of the modeling procedures conclusions and EPA's evaluation of these procedures and conclusions, see the MOAAD TSD in the Docket for this action (EPA-RO6-OAR-2007-0524).

In addition to the modeling results, TCEQ has presented other evidence to demonstrate that attainment will be reached. These additional WOE analyses are evaluated in Section 2 below. Since TCEQ's May 30, 2007 submittal, TCEQ has also provided additional information dated April 23, 2008 that supplements the modeling analysis (discussed in part h below) and also the WOE (also discussed in Section 2 below).

vii. Evaluation of Other Modeling Projections without Benefit of Measures with a 2010 Compliance Date.

Due to our concerns that not all control measures relied on in the Combo 10 analysis are required to be implemented prior to the 2009 ozone season, we also reviewed an alternative photochemical modeling analysis. The additional modeling, which we refer to as Photochemical Dispersion Modeling Reanalysis 2009 (PDMR2009), evaluates the ozone levels in 2009 based on the TCEQ control measures with compliance dates of March 1, 2009 or earlier and does not consider the impact from the adopted rules that have compliance dates after March 1, 2009. The adopted SIP included 2.4 tpd of NO_x emission reductions in the DFW NAA with a 2010 compliance date, while the adopted reductions within the DFW NAA with a 2009 compliance date of March 1, 2009 or earlier yield 23.48 tpd of NO_x reductions. The adopted SIP also included 22.4 tpd of NO_x reductions outside the DFW NAA due to the control of rich-burn compressor engines with a compliance date after March 1, 2009. Since these emission

reductions occur outside the DFW NAA, they would not be expected to yield the same amount of ozone benefit as similar reductions in the DFW NAA would yield. The PDMR2009 modeling helps to assess the potential impacts of these 2010 compliance rules.

This evaluation of PDMR2009 sets the lower bound of model predictions for the FDV in 2009 and the Combo 10 run sets the upper bound. This approach is consistent with attempting to consider the bounds of potential benefit from the adopted measures included in the SIP.

Table 2 includes the modeling projections for both the Combo 10 and PDMR2009 modeling runs.

Table 2. June 15, 2007 SIP control strategy modeling projections for 2009.

Monitor	BDV 1999	FDV Combo 10	FDV PDMR 2009
		TCEQ RRF	TCEQ RRF
Frisco	100.3	88	88
Dallas HintonC60	92	85	85
Dallas North C63	93	84	85
Dallas Exec C402	88	78	79
Denton	101.5	88	88
Midlothian	92.5	83	84
Arlington	90.5	80	81
Ft Worth C13	98.3	85	85
Ft Worth C17	96	84	85

For PDMR2009, the analysis shows that 3 of the 9 monitors are projected to be in attainment (at or below 84 ppb); four monitors (Ft. Worth C13, Ft. Worth C17, Dallas North C63, and Dallas Hinton C60) are projected to be very near attainment with 85 ppb; and projections for the other two monitors are 88 ppb for the Denton and Frisco monitors. This analysis indicates a slightly worse air quality picture than the results from the Combo 10 analysis. The FDVs for several monitors were higher, but the actual difference is only a few tenths of a

ppb at most monitors of concern. The largest difference between the PDMR 2009 modeling and the Combo 10 modeling was an increase of 0.3 ppb at the Frisco monitor.

As previously discussed, reductions from rules with a March 2010 compliance date are included in the Combo 10 run. Due to the incentives for early compliance and consideration that some sources will likely be controlled early, we conclude some of the reductions from rules with a March 2010 compliance date will likely be completed early. Therefore, we have evaluated the modeling outputs based on an approach that looks at both the PDMR2009 outputs, which predicts ozone levels that are slightly worse than what actually will occur and Combo 10 outputs which may be somewhat optimistic. For most monitors, the difference between the PDMR2009 and Combo 10 outputs is only a few tenths of a ppb of ozone. For more details see the MOAAD TSD for this notice.

viii. Refinements and Adjustments to Future Year (2009) Emission Inventory and Modeling-Based Projected Changes to the SIP Modeling FDVs.

Texas provided supplemental information to EPA on April 23, 2008 that expands and confirms information in the May 30, 2007 SIP submittal. See TCEQ's April 23, 2008 letter in the docket. The letter addresses the issues discussed below related to the airport emission inventory, DERCs and back-up generators, demonstrating that the projected emissions in these categories will be lower in 2009 than the projections in the May 30, 2007 SIP submittal. To support the adjustment to the DERC projections, Texas also provided a commitment letter on June 13, 2008 to adopt a SIP revision to limit the use of DERCs that is evaluated below and in Section V-D of this notice. This commitment was made by TCEQ in order to strengthen the attainment demonstration.

Regarding airport emissions, TCEQ provided a report performed by Eastern Research Group for Love Field, a Dallas inner city airport, which indicated that emission projections based on more recent data are much lower in 2009 than emission projections relied on in the Combo 10 and PDMR 2009 modeling. The emissions are lower primarily due to changes in market demand post – 9/11/2001 and the accelerated replacement of engines which occurred in order to reduce fuel usage because of the drastic increase in fuel costs over the last few years. Projections at Love Field were also impacted by changes in the Wright Amendment Restrictions, a Federal law restricting flights in and out of the airport that imposed restrictions on the number of gates that could be operated (Public Law No: 109-352). TCEQ and North Central Texas Council of Governments (NCTCOG) have provided EPA with updated information which became available since the May 30, 2007 submittal which refines the 2009 future year emission projections for Love Field and also the DFW International Airport (DFWIA). Both airports agree with their revised projections. With the reduced projections at DFWIA and Love Field, total airport emissions for all airports in the DFW NAA are reduced from 24.05 tpd (the amount that was included in the attainment demonstration modeling submitted May 30, 2007) to a lower emission totals of 14.66 tpd (aircraft and ground support equipment). In other words, the new estimates result in a 9.39 tpd airport emission inventory reduction from the May 30, 2007 SIP modeling estimates for the two airports. We have reviewed the updated information and agree that 14.66 tpd NO_x (a decrease of 9.39 tpd from the May 30, 2007 submittal values) represents a more accurate estimate of the projected emissions from the DFW NAA airports.

Consistent with EPA's guidance, Sections 12 and 16 of "Improving Air Quality with Economic Incentive Programs" (EPA-452/R-01-001, January 2001), TCEQ included in the 2009

modeled projections, all of the Emission Reduction Credits (ERCs) and Discrete Emission Reduction Credits (DERCs) in the bank. EPA guidance calls for emission credits that are being carried in the emissions bank to be included in modeled projections because these emissions will come back in the air when the credits are used. The TCEQ Bank currently holds 20.4 tpd of DERCs. Upon review of the DERC values included in the modeling, TCEQ felt that the inclusion of the entire balance of the DERC bank was overly conservative based on past usage of DERCs. After discussions with EPA, TCEQ committed to adopt and submit as a SIP revision, additional regulations prior to the 2009 ozone season that will limit the usage of DERCs by facilities in the DFW NAA. TCEQ plans to propose a DERC usage limitation such that 17.2 tpd of the 20.4 tpd currently in the 2009 modeling, will not be allowed to be used in 2009. The TCEQ submitted a commitment to EPA to adopt and submit to EPA as a SIP revision, an enforceable mechanism by March 1, 2009 that would limit DERC usage to a maximum daily usage of 3.2 tpd of NO_x DERCs effective March 1, 2009. Texas also committed to adopt and submit as a SIP revision, an enforceable mechanism that would provide a review procedure to ensure that future allowable use of DERCs after January 1, 2010, would not interfere with continued attainment of the 8-hour NAAQS. We have concluded that an enforceable mechanism, as described in more detail elsewhere in this notice, can provide the basis for revising the quantity of DERCs that were modeled in the May 30, 2007 SIP submittal.

In the May 30, 2007 SIP submittal, TCEQ also included requirements on the operation of back-up generators with a March 1, 2009 compliance date that had been estimated as potentially generating 0.9 tpd of NO_x reductions in the DFW NAA. TCEQ quantified and discussed these rules in the WOE section of the SIP rather than including the estimated emission reductions in

their modeling. The April 23, 2008 letter, includes an estimate of the reduction of ozone that would occur based on the 0.9 tpd of NO_x reduction.

In its letter, TCEQ provided estimates of the predicted impact on modeled ozone that would occur due to the changes in emission projections for airports, DERCs and back-up generators. TCEQ based these estimates on sensitivity runs of the model, which showed the model's response to various levels of "across-the-board" reductions for various emissions categories. These runs differ from more refined modeling because emissions reductions are not assigned to the particular grid cell where they are expected to occur.

EPA considers the use of modeling sensitivity runs, based on the adjustments to the Combo 10 modeling and similar sensitivity runs, to estimate the revised modeling FDV projections to be acceptable in these limited circumstances. In this case, the EPA's modeling sensitivity runs using the future control strategies modeling run, indicate the modeling is reacting very linearly over this limited range. Therefore, estimating changes to ozone levels due to limited emission changes to the 2009 emissions inventory will yield results similar to what would be predicted if there were a new refined future control strategies modeling run using a 2009 emissions inventory reflecting the revised emissions for the airport, DERCs, and back-up generators. Additionally, our analysis is that these modeling sensitivity runs are similar in spatial allocation to how these emission changes for the airports, DERCs, and back-up generators would be analyzed in a new future control strategies model run using a revised 2009 emissions inventory. EPA therefore finds the use of modeling sensitivities runs, based on the adjustments to the Combo 10 modeling and similar sensitivity runs, is acceptable in this fact-specific instance, to estimate the revised modeling FDV projections. Therefore, EPA considers these

adjustments to modeled ozone levels to be refinements to the previous modeling (submitted in the May 30, 2007 SIP) that would have been included in TCEQ's original submittal if additional time would have been available to incorporate the changes. EPA has reviewed these three revisions to the emissions inventories and TCEQ's projection of their impact on the future ozone concentration levels and finds that TCEQ provided a reasonable assessment of projected ozone levels. In fact we believe, particularly in the case of the airport emissions adjustment, that if these reductions had been modeled specifically rather than spread across the off road mobile emissions category, there would have been greater ozone reduction benefit because of the location of these emissions when compared to the location of the highest monitors. A more detailed discussion of our analysis is contained in the MOAAD TSD. Relying on these modeling-based estimates presumes that Texas will adopt an enforceable measure that will limit the use of DERCS to 3.2 tpd.

Table 3 lists the estimated level of ozone when the adjustments to airport, DERC and back up generator emissions are considered.

Table 3. Adjusted Modeling Projections.

Monitor	FDV	FDV	DERC Emissions	Airport Emissions	Backup Generators	Total	FDV	FDV
	Combo 10	PDMR 2009	(17.2 tpd Reduced)	(9.39 tpd Reduced)	(0.9 tpd Reduced)	Reduction	Adjusted Combo 10	Adjusted PDMR2009
	TCEQ RRF	TCEQ RRF	DERC ppb	Airport ppb	B.G. ppb	ppb	TCEQ RRF	TCEQ RRF
Frisco	88.7	89.0	-0.39	-0.32	-0.03	-0.74	87	88
Dallas Hinton	85.6	85.8	-0.36	-0.26	-0.02	-0.64	84	85
Dallas North	84.8	85.1	-0.36	-0.28	-0.03	-0.66	84	84
Dallas Exec	78.8	79.0	-0.47	-0.19	-0.02	-0.68	78	78
Denton	88.6	88.8	-0.32	-0.43	-0.04	-0.79	87	88
Midlothian	83.9	84.1	-0.66	-0.09	-0.01	-0.75	83	83
Arlington	80.9	81.0	-0.67	-0.24	-0.02	-0.94	79	80
Ft Worth C13	85.6	85.7	-0.57	-0.34	-0.03	-0.95	84	84
Ft Worth C17	84.8	85.0	-0.37	-0.43	-0.04	-0.85	84	84

With the addition of these new reductions included in the April 23, 2008 letter, Combo 10 projects using TCEQ's RRF that 7 of 9 are in attainment (at or below 84 ppb); and projections for the other two monitors are 87 ppb for the Denton and Frisco monitors. EPA believes it is reasonable to consider the above values as a sufficient representation of outputs of refined future year control strategy runs. Thus EPA considers the modeling values estimated in Table 3 to represent the final attainment demonstration modeling analysis.

ix. What are EPA's Conclusions of the Modeling Demonstration?

Using the TCEQ's RRF method and Combo 10 run with the three refinements, both the Frisco and Denton monitors are at 87 ppb and the rest of the monitors are projected to be

attaining the standard. EPA also considered EPA's RRF method and determined that while the the EPA method gives slightly higher results in some cases, it does not make a significant difference. In addition, EPA concludes that the modeling provided results that are in the range (82 ppb to <88 ppb) where it is recommended other WOE be considered to determine if attainment will be reached.

Although the modeled attainment test is not met at all of the DFW monitors, EPA recognizes that models are approximations of complex phenomena. The modeling analyses used to demonstrate that various emission reduction measures will help to bring the DFW area into attainment of the 1997 8-hour ozone standard, contain many elements that are uncertain (e.g., emission projections, meteorological inputs, model response, simplified chemistry, simplified temporal and spatial allocation of emissions, etc.). These uncertain aspects of the DFW analyses can prevent definitive assessments of future attainment status. The confidence in the accuracy of the quantitative results from a modeled attainment test should be a function of the degree to which the uncertainties in the analysis were minimized. However, while Eulerian air quality models represent the best tools for integrating emissions and meteorological information with atmospheric chemistry and no single additional analysis can replace that, EPA believes that all attainment demonstrations are strengthened by additional analyses that help confirm whether the planned emissions reductions will result in attainment of the standard.

EPA's modeling guidance indicates that when the maximum attainment demonstration modeling projections are within the 82 to less than 88 ppb range, further WOE analyses should be included in the attainment demonstration and evaluated in addition to the modeling projections. EPA's guidance also allows for WOE to be used when the modeled levels are 88

ppb or greater, but notes the further the projected levels are from attainment levels, the more substantial the WOE must be to conclude that the area would reach attainment by the attainment date. EPA's 2005 and 2007 A.D. guidance documents indicate that even though the photochemical modeling demonstration projections do not predict attainment of the standard (the modeled attainment test), assessment of a WOE analysis could yield a determination that the area will attain the standard by its attainment date. The next section will discuss the WOE that has been evaluated for this demonstration and EPA's review of the WOE.

b. What Weight of Evidence Has Been Evaluated?

Both EPA's 2005 and 2007 A.D. guidance documents recommend that in addition to a modeling demonstration, the states include additional analyses, called weight-of-evidence (WOE) when the modeling results in FDVs are greater than 82 ppb. EPA's 2005 and 2007 A.D. guidance documents both discuss additional relevant information that may be considered as WOE. A WOE analysis may provide additional scientific analyses as to whether the proposed control strategy, although not modeling attainment, will likely achieve attainment by the attainment date. The intent of EPA's guidance is to utilize the WOE analysis to consider potential uncertainty in the modeling system and future year projections. Thus, in the DFW case, even though the specific control strategy modeling predicts some monitors to be above the NAAQS, additional information (WOE) may provide a basis to conclude monitored attainment may be achieved. Since the attainment year is just a year away, EPA places greater significance on the WOE, especially consideration of current measured ozone levels and reductions still expected. As models have to make numerous simplifying assumptions and when the system being modeled is very complex, model predictions are not perfect. As a result of some of these

inherent uncertainties, EPA's guidance is to consider other evidence (WOE) to help assess whether attainment of the NAAQS is likely. EPA's guidance indicates that several items should be included in a WOE analyses, including the following: additional modeling, additional reductions not modeled, recent emissions and monitoring trends, known uncertainties in the modeling and/or emission projections, and other pertinent scientific evaluations. Pursuant to EPA's guidance, TCEQ supplemented the control strategy modeling with WOE analyses.

Today we are discussing the more significant components of the WOE that impacted EPA's evaluation of the attainment demonstration. Many other elements are discussed in the MOAAD TSD that had some impact on EPA's evaluation. We are briefly covering the more significant elements in this notice. For EPA's complete evaluation of the WOE considered for this notice, see the MOAAD TSD.

i. What Additional Modeling-Based Evidence Did Texas Provide?

Texas submitted a significant body of information as WOE in the May 30, 2007 submittal. Texas also provided supplemental information and clarifications in a letter to EPA dated April 23, 2008.

1. *Texas Emission Reduction Plan (TERP).*

TERP reductions for previous years was included in a previous SIP revision, the Increment of Progress (IOP) SIP and included in the modeled projections. Texas provided information in its May 30, 2007 submission and the April 23, 2008 letter documenting that additional reductions from the TERP Program (in 2008 and 2009) which were not included in the modeling are projected to occur. The impact of these reductions can be estimated in the WOE analysis.

The additional TERP funding is expected to produce air quality benefits above-and-beyond those modeled for the SIP. The modeling includes reductions expected for TERP through 2007. Not all of the reductions were accounted for and this shortfall must be achieved before additional WOE reductions can be achieved. As additional WOE, TCEQ estimated that 14.2 tpd reductions in NOx emissions in the DFW area could be achieved, if 50 percent of available 2008 funding and 70 percent of the 2009 funding were used for projects in the DFW area. This calculation is based upon funding for the DFW area at \$53 million in FY2008 and \$94 million in FY2009, an average seven-year project life with 250 days/year utilization, an estimated \$6,000 cost per ton for TERP program emissions reductions, and using 2008 funds remaining after the short-fall is met ($\$6000/\text{ton} \times 250 \text{ days/year} \times 7 \text{ years life cycle} = \$10.5 \text{ million for 1 tpd of NOx reductions}$). As of April 2008, requests in 2008 for TERP projects in the DFW area totaled \$94.5 million. Therefore, once an estimated \$39 million of project requests is utilized to fill the previous shortfall, there is an additional \$55.5 million of project requests in the DFW area for further NOx reductions. These project requests will be reviewed by TCEQ to determine whether the projects are cost effective and TCEQ will make determinations about funding of the projects that pass review. Pending TCEQ's review and granting decisions, the surplus DFW area FY2008 new project requests (estimated surplus of \$55.5 million in requests that are estimated to yield 5.25 tpd in NOx reductions) seem to be in line with the calculated project requests needed to achieve a 14.2 tpd reduction in NOx emissions if another \$94 million (estimated to yield 8.95 tpd in NOx reductions) in requests are received by TCEQ in FY2009.

It should be noted that the \$94 million in requests that was received in FY2008 is much larger than any previous annual request in the DFW area.

2. Compressor Engines.

In the April 23, 2008 letter, TCEQ provided supplemental information regarding emissions from stationary, gas-fired engines. During the May 23, 2007, adoption agenda before the TCEQ commissioners for the 30 TAC Chapter 117 rules and DFW 1997 8-hour ozone attainment demonstration SIP, stakeholders commented that the number of stationary, gas-fired engines in the DFW area was likely underestimated in the modeling projections because of the growing exploration and production of natural gas from the Barnett Shale. The commissioners directed the TCEQ's staff to research the issue. TCEQ staff subsequently conducted a survey to re-evaluate the number of stationary, gas-fired engines in the nine-county DFW area. The 2007 TCEQ survey results show there is a much larger fleet of stationary, gas-fired internal combustion engines than estimated in the SIP submittal. Almost all of these engines came into service after the 1999 base year so represent emissions growth. This growth in emissions will be greatly mitigated by the implementation of controls in response to the Chapter 117 rules adopted as part of the May 30, 2007 SIP submission. While mitigated to a large extent, emissions in the model from these sources would be expected to be 3.3 tpd higher than the model projected. Using previously discussed modeling sensitivity runs, we account for this increase in projected emissions and estimate its effect on modeled ozone levels in Table 4.

Table 4 includes the estimates for the amount of ozone reductions for these additional TERP and Compressor Engines WOE emission changes. Table 5 is included below and includes the estimated FDVs with consideration of the two adjustments.

Table 4. Assessment of additional WOE emission reductions and potential ozone reductions.

	EPA Nonroad Sensitivity	TERP	NG Compressor Engines using Nonroad Sensitivity	Total Change
		Using Nonroad Sensitivity		
	tpd reduction	tpd increase	Net tpd	
		-14.2	3.3	-10.9
Monitor	ppb/ton	ppb change	ppb change	Net ppb change
Frisco	-0.03387	-0.4810	0.112	-0.37
Dallas HintonC60	-0.03060	-0.4345	0.101	-0.33
Dallas North C63	-0.02866	-0.4070	0.095	-0.31
Dallas Exec C402	-0.02455	-0.3487	0.081	-0.27
Denton	-0.05343	-0.7587	0.176	-0.58
Midlothian	-0.01332	-0.1891	0.044	-0.15
Arlington	-0.02868	-0.4072	0.095	-0.31
Ft Worth C13	-0.03347	-0.4753	0.110	-0.36
Ft Worth C17	-0.04906	-0.6967	0.162	-0.53

As shown in Table 5, using the TCEQ RRF method for both the Combo 10 and PDMR2009 runs with the three modeling refinements and also these modeling-based WOE adjustments, the Frisco and Denton monitors are 87 ppb and the rest of the monitors are projected to be attaining the standard. Other WOE factors, discussed below, indicate further progress that we believe will lead to attainment of the standard.

Table 5. Modeling-based assessment with some WOE elements included.

Monitor	FDV	FDV	Total Modeling-based WOE Reduction	FDV with WOE Emission Estimates w/ modeling-based ozone adjustments applied to previously Adjusted Modeling Values	
	Adjusted Combo 10	Adjusted PDMR2009	ppb	Adjusted Combo 10 w/WOE	Adjusted PDMR2009 w/WOE
	TCEQ RRF	TCEQ RRF	TCEQ RRF	TCEQ RRF	TCEQ RRF
Frisco	87.9	88.2	-0.37	87	87
Dallas Hinton	84.9	85.2	-0.33	84	84
Dallas North	84.1	84.4	-0.31	83	84
Dallas Exec	78.1	78.3	-0.27	77	78
Denton	87.8	88.0	-0.58	87	87
Midlothian	83.2	83.4	-0.15	83	83
Arlington	79.9	80.1	-0.31	79	79
Ft Worth C13	84.6	84.8	-0.36	84	84
Ft Worth C17	84.0	84.2	-0.53	83	83

ii. Other Non-Modeling WOE from TCEQ.

EPA believes that, with only one year left until attainment, it is important to look at the current air quality and the amount of reductions that are yet to occur to evaluate whether it is realistic that the area can attain by 2009.

The preliminary highest value for the 4th high 8-hour exceedance value monitored at any monitor in the DFW NAA in 2007 was 89 ppb. (The value is considered preliminary because TCEQ has not certified that it has completed the Quality Assurance and Quality Control Checks. A process that will be completed shortly). This is the lowest level that has ever been achieved for the fourth high in this area.

In the May 30, 2007 submittal, TCEQ also provided additional WOE of ozone trends that show the area had monitored attainment for the 1-hour ozone standard (now revoked). The data

indicates emission trends and 8-hour ozone levels have decreased despite large population increases. As included in references in TCEQ's TSD for this SIP revision, TCEQ and others have also provided ozone source apportionment assessments showing that DFW emissions can contribute up to approximately 40% of the ozone exceedance values projected by the model at monitors downwind of DFW on high ozone days, while the episode average of all monitors was 24%. Ozone source apportionment techniques are tools used to estimate the contribution of various sources or source categories to modeled ozone levels. In this case, source apportionment is showing that ozone levels on some days during the episode are much more heavily influenced by emissions within the nonattainment area which are the primary target of the control strategy. The attainment test relies on a relative response factor which is an average value that is based on most of the days of the episode. The response of the RRF to local controls would be expected to be consistent with 24% of the ozone level being driven by local emissions since both the RRF and 24% source apportionment are averaged across the episode. However, on specific days when a monitor is more directly impacted by DFW area emissions (downwind of the core DFW area) the ozone value reflected at the monitor may be 40% due to local DFW NAA emissions. Therefore, the attainment test with the averaging of days with different wind directions is likely under-estimating the benefit of local reductions in the DFW NAA.

TCEQ also submitted WOE components that are further discussed in the TSD including the following: ozone design value trends, ozone variability analysis and trends, model projected RRFs at area monitors that have been installed since the base case period and were not utilized in the modeling, NO_x and VOC monitoring trends, emission trends, NO_x and VOC chemistry limitation analysis, local contribution analyses, and mobile emission sensitivity runs. Details of

these WOE components are included in Chapter 3 of the May 30, 2007 SIP submittal. TCEQ also provided updated data for some of these elements in their April 23, 2008 letter.

Additional quantified WOE emissions reductions (without ozone reductions calculated) include a number of energy efficiency measures (Residential and Commercial Building Codes, municipality purchase of renewable energies, political subdivision projects, electric utility sponsored programs, Federal facilities EE/RE Projects, etc.) that TCEQ has estimated will yield 2.12 tpd NO_x reductions.

iii. EPA WOE analysis.

Since the May 30, 2007 submittal, EPA has worked with TCEQ to quantify emission reductions that will occur between the latest ozone monitoring season (2007) and the attainment year 2009. EPA has generated an estimate of how much reduction in emissions is expected to occur between 2007 and 2009. Our estimate is that an additional 70 tpd of NO_x reductions will occur due to the existing rules. With the inclusion of all of the potential WOE reduction elements (including 14.2 tpd of NO_x reductions from TERP and additional estimated reductions of 35.7 tpd from control of the underestimated compressor engines) the total potential reductions are estimated as 120 tpd of NO_x. Based on an estimated 2007 NO_x emission inventory, these SIP rules (and other State and Federal requirements) are estimated to reduce NO_x emissions 15% from 2007 levels. With inclusion of all the potential WOE elements identified, the amount of reduction of daily NO_x from 2007 levels increases to 26%. These are large expected changes to the DFW NAA NO_x inventory.

Utilizing multiple sensitivity runs conducted by EPA and TCEQ, we have estimated that the additional 15% reductions which occur after the 2007 ozone season could result in a 2.3 ppb

decrease in ozone levels at the controlling monitors (Frisco and Denton). EPA's assessment, including both the SIP and WOE emission reductions estimated to occur after the 2007 ozone season, indicates a 3-4 ppb drop in ozone levels is possible. The 3-4 ppb drop is a rough estimate that could be larger (greater than 4 ppb) and that value would yield a value of 84 ppb or lower to indicate attainment.

The monitored attainment test is monitor specific and in the future the highest monitor that is used to determine attainment (using 2007-2009 data) may not be the one that recorded a high value of 89 ppb in 2007. Only 2 of the 20 monitors in the DFW area monitored 4th high 8-hour values of 89 ppb. The 4th high 8-hour ozone levels monitored at the other 18 monitors was: 88 ppb at one monitor, 87 ppb at one monitor and the rest were 84 ppb or below. If the monitor used for the 2009 attainment test is one of the monitors that recorded a value less than 89 ppb (18 of the 20 monitors), then a 3-4 ppb drop from the 4th high value recorded in 2007 would indicate attainment with a value of 84 ppb or lower. With the emission reductions to occur after 2007, we could expect a 4th high value for the DFW area of approximately 84-85 ppb or lower. Based on this analysis, it is not unreasonable to conclude that attainment in 2009 is possible considering the recent downward monitoring trend (2006-2007) and the preliminary 2007 monitoring values of 89 ppb value.

This simplistic analysis alone does not conclusively prove that the area will attain the standard by 2009, but EPA believes that the most recent preliminary monitoring values from 2007, coupled with the estimated impact of the additional reductions, estimated ozone decreases (estimated as 3-4 ppb), are consistent with reaching attainment by 2009.

1. EPA Meteorological Adjusted Trends Analysis.

EPA performed a draft meteorological adjusted trends analysis in October 2007 for many areas in the eastern half of the United States. Meteorological adjusted trends analyses attempt to remove the variability in ozone levels due to differing meteorology and adjust the ozone values to the average meteorology level. These analyses are called met adjusted design values and can be used to indicate whether nonattainment areas are closer to (or farther from) attainment than their actual most recent design values would otherwise indicate. The technique and estimated values should not be used in an absolute sense, but rather as a directional assessment tool.

EPA performed a meteorological adjusted analysis for select DFW monitors with higher DVs for the last 10 years of data (where available). The most recent DFW NAA DV (based on preliminary monitoring data for 2007) is 95 ppb (2005-2007). EPA's meteorological adjusted trends analysis yields a value of 91.7 ppb for the 2005-2007 period. Thus, the analysis indicates that the 2005-2007 period was worse than normal meteorology. So if average meteorology occurs in the future, the DV may potentially drop on the order of 3 ppb without consideration of additional emission reductions. The met adjusted trends analysis also included an assessment of the years around the 1999 base period of the modeling. The assessment of the base period indicated that the meteorology was worse than normal, and when this is taken into account, the highest Base DVs would be about 0.8 ppb lower. If the meteorological adjusted Base DV is used for the modeling projection, the 2009 modeling values would be approximately 0.8 ppb less, thus the 2009 modeling would be closer to attainment. If this 0.8 ppb level decrease is used for the Frisco and Denton monitors, the future modeling and WOE projection would also drop. The resultant estimates would be that Combo 10 would yield 86 ppb at the Denton and Frisco

monitors, and for the PDMR2009 modeling the value would be 87 ppb at Frisco and 86 ppb at Denton monitor.

iv. Other WOE Items from Texas Not Currently Quantified: Additional Programs/Reductions.

These are additional items in TCEQ's WOE analysis that are not easily quantifiable and are difficult to estimate expected ozone decreases. These elements can still add to the overall WOE analysis but may not warrant as much emphasis as more refined technical analyses.

1. AirCheckTexas.

The AirCheckTexas (ACT) program provides funds to individuals as an incentive to retire older, more polluting vehicles or aid in the repair of vehicle's emission control systems. TCEQ included discussion of the ACT program in the WOE section in their May 30, 2007 submittal, but did not include a benefit due to the ACT program in the modeling.

The May 30, 2007 submittal also states that the Texas Legislature was considering additional funding for the ACT - Drive a Clean Machine program. During the 80th Legislative Session, Senate Bill 12 was passed and subsequently signed by the Governor on June 15, 2007. The ACT program for the DFW area was funded at \$21,348,583 each for fiscal years 2008 and 2009. Currently the program funding has been increased to approximately \$20 million/year for two years in DFW NAA. The Legislature significantly increased the amount paid for replacement of vehicles older than 10 years old (or vehicles that have failed emission testing and can't be reasonably fixed) to \$3,000 for a new/recent model year vehicle and \$3500 for a hybrid vehicle. Promotion of this program has been unprecedented and recently the State and local agencies have received and processed applications for the \$20 million allotted to DFW area this

year, well in advance of the State fiscal year end date of August 31st.

The North Central Texas Council of Governments (NCTCOG) is the local entity implementing the program and processing applications. Since the SB 12 enhanced program started on December 12, 2007, there has been high interest and 15,092 applications submitted. Again, outreach by TCEQ, NCTCOG, local business leaders, and local governments have been unprecedented, and recently the NCTCOG indicated that there were 6,986 vouchers issued by April 4, 2008. With the level of voucher issuance and usage, it is likely the program will result in emission reductions greater than considered in the WOE portion of the May 30, 2007 SIP submittal.

Other unquantified WOE emissions reductions include Luminant's (formerly TXU) announcement that they are going to spend \$1 billion to yield emission reductions at some of their plants in East and North Central Texas. Luminant has initially indicated that their plans include installing SCR at the Martin Lake plant, SNCR at Monticello and Big Brown plants and improve their Low NOx burners at one of the Monticello units. We sent a letter to Luminant asking for clarification on what NOx controls may be in place by the 2009 DFW ozone season, and are currently waiting for a response from Luminant. If we receive a response from Luminant, we will include it in the docket for review. These facilities are to the East and Southeast of the DFW area, and are often upwind of DFW during ozone events. Reductions at these plants will help lower background ozone and pre-cursor entering DFW area on many ozone conducive days and would be expected to yield reductions in ozone levels at the DFW area monitors on many ozone conducive days.

2. Local Quantified and Unquantified Measures.

Other unquantified measures include Dallas Sustainable Skylines Initiative, Smartway, Intelligent Transportation System, Truck Lane Restriction, LED Traffic Signal replacement, Blue Skyways Collaborative, Parking Cash-out Program, Roadway Peak Period Pricing, Clean School Bus Program, \$4 million incentive for early NG engine control, etc. These programs are not included in the VMEP program and therefore are not being double-counted.

Through the actions of citizens and local governments, an approach to purchase cement that is produced with less NOx emissions is being considered by local cities. Currently three of the largest cities (Dallas, Ft. Worth, and Arlington) have passed city ordinances addressing the purchase of green cement. These ordinances may yield an additional 1 tpd of NOx reductions, but this estimate is not certain at this time. We expect additional reductions will be achieved and that the location of the reductions would be beneficial to reducing the area's ozone levels.

Local city and county officials have increased their enforcement of Inspection and Maintenance (I&M) rules by performing site inspections. In certain cases, officials discovered fraudulent transactions, including inspection sticker counterfeiting. The enforcement initiatives by local governments will result in additional emission reductions from mobile sources in the DFW area. Some of these benefits are already considered in the modeling, but these efforts will yield additional actual reductions between 2007 and 2009.

c. Is the 8-Hour Attainment Demonstration Approvable?

EPA is proposing that, taken in balance, the available modeling, evidence, analyses, adopted control strategies (including rules with 2010 compliance dates), the DERCs condition, monitoring data, and additional information, support that the DFW area will reach attainment of

the 1997 8-hour ozone standard by its attainment date. In making this determination, we have considered supplemental information not available at the time the attainment modeling was performed by TCEQ, including evidence that NO_x emissions reductions will occur that are in addition to the measures adopted and quantified in the May 30, 2007 SIP submittal.

We have considered modeling using two emission reduction scenarios (Combo 10 and PDMR2009), recognizing that the actual emission control level would be somewhere in between.

We have also considered the impact of additional measures and reductions documented in the April 23, 2008 letter. With these adjustments, the modeling is showing significant reductions of 7-13 ppb in ozone from the base period, but is still slightly short of attainment. The modeling predicts values greater than 84 ppb at two of the nine monitors, but we believe the WOE assists in bridging the gap to attainment.

We also considered that the model's under-prediction of high ozone levels may be biasing the model predictions, and therefore potentially underestimating the ozone reduction that could occur by the emission reductions achieved by local and regional rules and additional WOE elements. We also have considered the impact of meteorological adjustments to the design value projection which would further indicate the future projections may be too high. Finally, we have recognized emission reduction efforts that have not been quantified and included in the modeling or model based WOE estimates.

EPA is also considering non-modeling evidence. One factor that EPA believes is of particular importance is the total NO_x reductions expected in the DFW NAA from 2007 to 2009, which are expected to decrease ozone levels from the 89 ppb fourth high maximum monitored in 2007 to levels consistent with attainment. We have confidence that ozone levels will improve

because NOx emissions are projected to decrease by 26% in the time period 2007-2009. Finally, EPA has considered the most recent ambient data which indicates that the area is on a track that is consistent with achieving attainment of the 8-hour standard by 2009.

Taking these factors together, we believe the modeling, including all the WOE measures, is consistent with attainment.

C. Control Measures Relied upon by the State in the Control Strategy Modeling

Section 172 of the Act provides the general requirements for nonattainment plans.

Section 172(c)(6) and section 110 require SIPs to include enforceable emissions limitations, and such other control measures, means or techniques as well as schedules and timetables for compliance, as may be necessary to provide for attainment by the applicable attainment date.

The DFW attainment demonstration SIP is mainly directed at reductions of NOx since the modeling shows that NOx reductions will be most effective in bringing the area into attainment of the standard, but the SIP includes VOC emissions reductions as well. The modeling includes Federal, State and local measures. The attainment demonstration modeling also relies on Regional measures applied in east and central Texas and measures applied in the Houston (HG) and Beaumont (BPA) ozone nonattainment areas. The State adopted controls to reduce NOx emissions from mobile sources; ICI Sources; EGFs; Minor Sources; Cement Kilns; and East Texas Combustion Sources. Today's action proposes approval of emissions reductions from two mobile source strategies not previously adopted into the SIP. These strategies are the new VMEP and the new TCMs included in the May 30, 2007 SIP submittal. In separate actions, we are finalizing approval of the April 9, 2003 Alcoa Federal Consent Decree, the Energy Efficiencies

Program, and the May 13, 2005, NOx rules, and we are proposing to approve the NOx rules for ICI Sources; EGFs; Minor Sources; Cement Kilns; and East Texas Combustion Sources. These actions will assist the area in meeting the 8-hour ozone standard and are relied upon in the control strategy modeling.

The following is the identification of the control measures reflected in the 2009 inventory for the May 30, 2007 revision Future Control Strategy Case modeling run. In addition, we identify which of the State and local controls are addressed in this proposed action and which will be addressed in separate rulemaking actions.

Table 6. Federal Measures Reflected in the DFW 2009 Inventory

Federal Tier 1 Federal Motor Vehicle Control Program (FMVCP)
Federal Tier 2 FMVCP
Federal 2007 Heavy Duty Diesel FMVCP standards
Federal National Low Emission Vehicle Program (NLEV)
Federal Tier I and Tier II Locomotive NOx standards
Federal New Non-road Spark Ignition Engines rule
Federal Heavy Duty Non-road Diesel Engines rule
Federal Tier 1, 2, and 3 Non-road Diesel Engines rule
Federal Small Non-road Spark Ignition Engines rule
Federal Large Non-road Spark Ignition Engines and Recreational Marine rule
Non-road RFG – Federal/state opt in – the 4 core counties

We believe that the State correctly projected the growth rates and emissions reductions for sources subject to these Federal measures.

Table 7. State Measures Reflected in the DFW 2009 Inventory

Measures	Status
DFW gas-fired engine rule	EPA is taking action in a separate rule
DFW non-EGUs -- banked ERCs and DERs for VOC and NOx emissions	Approved September 6, 2006 (71 FR 52703)
DFW EGUs	EPA is taking action in a separate rule
DFW non-EGUs	EPA is taking action in a separate rule
Auxiliary steam boilers in the 5 counties	EPA is taking action in a separate rule
Stationary gas turbines in the 5 counties	EPA is taking action in a separate rule
DFW Major Source Rule	EPA is taking action in a separate rule
DFW Minor Source Rule	EPA is taking action in a separate rule
Stage I Program, expanded from the 4 core to all 9 counties	Approved January 19, 2006 (71 FR 3009)
Surface Coating Rules, expanded from the 4 core to all 9 counties	Approved January 19, 2006 (71 FR 3009)
Inspection/Maintenance (I/M) Program, expanded from the 4 core to all 9 counties	Approved November 14, 2001 (66 FR 57261)
Anti-tampering Rule	Approved July 1, 1998 (63 FR 35839)
RFG in the 4 core counties	Approved October 8, 1992 (57 FR 46316)
VOC Rules, expanded from the 4 core to all 9 counties, adopted by TCEQ on 11/15/06	EPA is taking action in a separate rule
Portable Fuel Container Rule	Approved February 10, 2005 (70 FR 7041)
Reid Vapor Pressure Rule	Approved April 26, 2001 (66 FR 20927)

We believe that the State correctly projected the growth rates and emissions reductions for sources subject to these State measures.

Table 8. Local Measures Reflected in the DFW 2009 Inventory

Measures	Status
VMEP	Proposed for approval in this action
TERP	Program already approved; SIP credits proposed for approval in this action
TCMs	Proposed for approval in this action
Energy Efficiencies Program (EEP)	EPA is taking action in a separate rule
Speed Limits	Approved October 11, 2005 (70 FR 58978)

We believe that the State correctly projected the growth rates and emissions reductions for sources subject to these local measures.

Table 9. Texas Regional Measures Reflected in the DFW 2009 Inventory

Measures	Status
Agreed Orders for Alcoa and Texas Eastman	Approved October 26, 2000 (65 FR 64148)
East Texas Chapter 117 NOx requirements	Approved March 16, 2001 (66 FR 15195)
East Texas Combustion Rule	EPA is taking action in a separate rule
April 9, 2003 Alcoa Federal Consent Decree	EPA is taking action in a separate rule
TxLED (includes locomotives)	Approved November 14, 2001 (66 FR 57196)
Portable Fuel Container Rule (34 counties)	Approved February 10, 2005 (70 FR 7041)
Stage I	Approved December 20, 2000 (65 FR 79745)
Lower RVP	Approved April 26, 2001 (66 FR 20927)
Cement kiln rules	EPA taking action in a separate rule

We believe that the State correctly projected the growth rates and emissions reductions for sources subject to these Regional measures.

Table 10. Houston (HG) and Beaumont (BPA) Ozone Nonattainment Area Measures Reflected in the DFW 2009 Inventory

Measures	Status
Chapter 117 NOx requirements for HG	Approved November 14, 2001 (66 FR 57230)
Chapter 117 NOx requirements for BPA	Approved 26, 2000 (65 FR 64158); September 9, 2000 (65 FR 53172); and March 3, 2000 (65 FR 11468)
HG MECT rule for HG EGUs	Approved September 6, 2006 (71 FR 52664)
HG non-EGUs – banked ERCs and DERCs for VOC and NOx emissions and the MECT NOx cap	Approved September 6, 2006 (71 FR 52664)
HG highly-reactive VOC cap (HRVOC) rule	Approved September 6, 2006 (71 FR 52659)
BPA non-EGUs - banked ERCs and DERCs for VOC and NOx emissions	Approved March 16, 2001 (66 FR 15195)
Agreed Orders for Premcor, Exxon Chemical, and Motiva in the BPA Ozone SIP	Approved April 12, 2005 (70 FR 18995)

We believe that the State correctly projected the growth rates and emissions reductions for sources subject to these measures in the HG and BPA ozone nonattainment areas.

D. Local Measures Relied upon in the Control Strategy Modeling

Today's action proposes approval of two new emission reductions from local strategies not previously adopted into the SIP. These strategies are the VMEP and TCMs. These controls should assist the area in meeting the 8-hour ozone standard. Approval of the relied-upon control measures must be finalized before EPA takes final action approving the attainment demonstration SIP.

a. Voluntary Mobile Source Emission Reduction Programs.

A voluntary mobile source emissions reductions program (VMEP) is an overall control strategy that attempts to complement existing regulatory programs through voluntary, non-regulatory changes in local transportation activities or changes in in-use vehicle and engine composition. Authority for our approval of the VMEP is primarily grounded in section 110(a)(2) of the Act, as well as sections 182(g)(4)(A) and 108. Section 110(a)(2) establishes that a SIP must include "enforceable emissions limits and other control measures, means or techniques . . . as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter."

In interpreting 110(a)(2) of the Act, EPA issued a guidance document entitled, "Guidance on Incorporating Voluntary Mobile Source Emission Reduction Programs in State Implementation Plans (SIPs)," Memorandum from Richard D. Wilson, Acting Assistant Administrator for Air and Radiation, dated October 24, 1997, which allows for SIP credit for voluntary measures. The Fifth Circuit Court of Appeals upheld, as a reasonable interpretation of the Act, EPA's VMEP policy and allowed the State to consider estimated emissions reductions from a VMEP in the Houston area 1-hour ozone attainment demonstration. See *BCCA Appeal*

Group v. EPA, 355 F.3d 817, 825 (5th Cir. 2003).

The EPA's VMEP Guidance provides a detailed framework for states to obtain SIP emissions reduction credit for such voluntary emissions reductions. EPA guidance allows VMEP to provide a maximum of 3% of the total future year emissions reductions required to attain the appropriate NAAQS. In addition, states must identify and describe the voluntary measures in a VMEP and include supportable projections of emissions reductions associated with the measures. The state must also make an enforceable commitment to monitor, assess, and report on the implementation and emissions effects of the VMEPs, as well as to remedy timely any shortfall in emissions reductions that do not meet the projected levels.

The EPA guidance sets forth specific minimum criteria for approval of VMEPs into the SIP. The criteria specify that VMEP emissions reductions be quantifiable, surplus, enforceable, permanent, and adequately supported. The state must promptly assess and backfill any shortfall pursuant to enforceable commitments in the SIP in the event that the projected emission reductions are not achieved. In addition, VMEPs must be consistent with attainment of the standard and with the RFP requirements and must not interfere with other requirements of the Act.

The NCTCOG, as the regional metropolitan transportation planning agency for the DFW area, has committed to implement the projects and/or programs outlined in the DFW VMEP submittal. The estimated benefits listed are calculated for the year 2009. The NCTCOG will be responsible for monitoring and reporting the emissions reductions to the TCEQ. The NCTCOG, through TCEQ, will cover any VMEP shortfall (of the total 2.63 tpd of NO_x committed) by supplementing additional Transportation Emission Reduction Measures (TERMs). The program

areas that may be used to remedy a shortfall are traffic signal improvements; intelligent transportation systems (ITS); and/or freeway and/or arterial bottleneck removal. Texas submitted adequate program descriptions that project emissions reductions attributable to each specific voluntary program and included the basis for the quantified emissions reductions. The DFW VMEP will be implemented in each of the nine counties within the DFW area.

NCTCOG identified seven voluntary programs that will aid in the improvement of the DFW area's air quality, as described below. Table 11 lists the programs and projected credits:

Table 11. Voluntary Mobile Emission Reduction Programs and Credits Claimed

Program Type	2009 NO _x Benefits	2009 VOC Benefits
Clean Vehicle Program	0.24	0.05
Employee Trip Reduction	0.43	0.28
Locally Enforced Idling Restriction	0.62	0.02
Diesel Freight Idling Reduction Program	0.33	0.01
SmartWay Transport Demonstration Project	0.00	0.00
Public Agency Policy for Construction Equipment	0.06	0.01
Aviation Efficiencies	0.95	0.24
Total Benefits	2.63	0.61

As stated above, the State commits to evaluating each program to validate estimated credits, to evaluating and reporting on the program implementation and results, and to promptly remedy any credit shortfall. The State also commits to additional TERMS that can be substituted for any shortfall in credit from the estimated credits for VMEP. These include traffic signal improvements, ITS; and/or freeway and/or arterial bottleneck removal.

EPA's analysis of all the VMEP measures shows that each creditable measure is

quantifiable. All VMEP measures must be in place by March 1, 2009, in order to be relied on for purposes of attainment by June 15, 2010. The emissions benefits for the measures are calculated for 2009 and are permanent as the NCTCOG is responsible to monitor, assess, report on future emissions reductions from the measures and remedy any shortfall. The reductions are surplus by not being substitutes for mandatory, required emissions reductions and are not being counted in any other control strategy. The SIP with voluntary measures is enforceable because the State has committed to fill any shortfall in credit, thus any enforcement will be against the State. Each measure is adequately supported by personnel and program resources for implementation. The State's goal is 2.63 tpd of NOx benefit from the VMEP. Our detailed evaluation of the State's VMEP is in the TSD.

The DFW VMEP meets the criteria for credit in the SIP. The State has shown that the credits are quantifiable, surplus, enforceable, permanent, adequately supported, and consistent with the SIP and the Act. We propose to approve the VMEP into the DFW SIP and agree with the projected NOx emissions reductions of 2.63 tpd and the projected VOC emissions reductions of 0.61 tpd from the VMEP.

b. Transportation Control Measures (TCMs).

TCMs are transportation related projects or activities designed to reduce on-road mobile source emissions. Section 108 of the Act outlines allowable types of TCMs. Federal regulations at 40 CFR 93.101 define a TCM as any measure that is specifically identified and committed to in the applicable implementation plan that is either one of the types listed in section 108 of the Act, or any other measure for the purposes of reducing emissions or concentrations of air

pollutants from transportation sources by reducing vehicle use or changing traffic flow or congestion conditions.

Nonattainment areas may submit TCMs as air quality control measures into the SIP. TCMs used as an emissions reductions control strategy must be specific and enforceable as required by the Act and EPA guidance. TCMs in the SIP must include an identification of each project, location, length of each project (if applicable), a brief project description, implementation date, and emissions reductions for NO_x and VOC. (See “Transportation Control Measures: State Implementation Plan Guidance,” September 1990 (EPA 450/2-89-020)).

The process for TCM selection and inclusion in the SIP is based on consideration of all potential measures specified in section 108 of the Act and other emerging transportation control measures that may be reasonably available for implementation and used for emissions reductions. The TCMs identified through this process and included in the SIP are contained and funded in the region’s metropolitan transportation plan and Transportation Improvement Program. This ensures that the TCMs were properly adopted, funded and received appropriate approval. Inclusion of TCMs in the SIP also shows evidence of a specific schedule to plan, implement and enforce the measures. EPA approved the Texas TCM rule as a revision to the SIP on December 5, 2002 (67 FR 72379).

The NCTCOG identified in Appendix F of the SIP submittal TCMs for use as a control strategy for attainment of the ozone NAAQS. Appendix F of the submittal lists seven categories of TCMs: bicycle-pedestrian projects; grade separation projects; high-occupancy vehicle/managed lane projects; intersection improvement projects; park and ride projects; rail transit projects; and vanpool projects. The TCMs have been, or will be, implemented in the nine-

county DFW area. By the start of the 2009 ozone season, the TCMs should reduce NOx emissions in the DFW area by 1.53 tpd and VOC emissions by 1.61 tpd.

The State has shown that the DFW TCMs meet the requirements of the Act and applicable EPA guidance. The list of TCMs provided in Appendix F of the State's submittal provides identification of each project, location, length of each project (if applicable), a brief project description, completion/implementation date, and emissions reductions for NOx and VOCs. EPA's detailed evaluation of the approvability of the State's TCMs can be found in the TSD to this action. EPA agrees that the implementation of TCMs will reduce NOx emissions in the DFW area by 1.53 tpd and VOC emissions by 1.61 tpd. We therefore propose to approve the State's TCMs into the DFW SIP.

c. Measures Discussed in the April 23, 2008 Letter from TCEQ

Texas provided a letter on April 23, 2008 supplementing the information in the May 2007 SIP. Below we discuss two of the issues raised in the letter (TERP and DERCS) in detail as these have significantly impacted our review of the modeling and weight of evidence as discussed in Section V-B.

i. Texas Emission Reduction Plan (TERP).

TERP is a discretionary economic incentive program (EIP) providing economic incentives to reduce emissions. Although TERP is composed of several different components, the part of the plan that EPA approved into the Texas SIP is the diesel emission reduction program. See 66 FR 57160 (November 14, 2001). The approved TERP program is a grant program, unique to Texas, that provides funds through TCEQ in a variety of categories, including emissions reduction incentive grants, rebate grants (including grants for small businesses), and

heavy and light duty motor vehicle purchase or lease programs, all with the goal of improving air quality in Texas. Examples of TERP programs include assisting small businesses in purchasing lower-emission diesel vehicles, helping school districts to reduce emissions from school buses, and providing funds to support research and development of pollution-reducing technology. TERP is available to all public and private fleet operators that operate qualifying equipment in any of the ozone nonattainment counties within the State, including the nine that comprise the DFW area.

State rules that govern TCEQ administration of TERP were approved into the SIP on August 19, 2005, at 70 FR 48647. The State's previous methodologies for determining emissions reductions from this type of program have been found acceptable by EPA.

Texas twice submitted TERP estimated emission reductions within the DFW area for approval into the DFW SIP. The first submission, on May 13, 2005, has not previously been approved into the SIP as SIP credit, but DFW has received air quality benefits from the emissions reductions achieved. This first plan submitted calculations based upon legislative funding that projected NO_x emissions reductions of 22.2 tpd from TERP, which would be achieved by June 15, 2007. To date however, the State has shown that only 18.45 tpd of the calculated 22.2 tpd NO_x emissions reductions have occurred, leaving a shortfall of 3.75 tpd.⁴ As explained below, this shortfall of 3.75 tpd TERP SIP credit will be addressed and corrected by March 1, 2009.

The second plan, submitted on April 23, 2008, projected NO_x emissions reductions of 14.2 tpd from TERP, which would be achieved by March 1, 2009. The amount of TERP credit allocated to DFW is predicated on the funding formula set up by the Texas Legislature. For the 2008/2009 biennium, the Texas Legislature fully funded TERP in the amount of \$297,144,243.

TCEQ will award these TERP grants based on program criteria⁵ and it is possible to project NOx emissions reductions to occur by March 1, 2009, by using an estimated funding allotment for the DFW area. For example, if 50% of the available 2008 funds and 70% of the 2009 funds are used for projects in DFW, the 3.75 tpd shortfall noted above will be corrected, and an additional 14.2 tpd reduction in NOx emissions can be expected.⁶

The emissions reductions projected for the 2008/2009 TERP are quantifiable, as they are projected to reduce NOx by 14.2 tpd by March 1, 2009.⁷ This measure is surplus, as it will be used to fund projects that are not otherwise required under the Act or the Federally-approved SIP.

The measure is permanent, because the average project life extends beyond the period in which it is used in the applicable SIP demonstration. TERP is fully funded by the Texas Legislature and has a history of adequate personnel and resources to implement the program. The TCEQ is obligated to monitor, assess and report on the implementation of TERP to the Texas Legislature.

Annual reports document, by area, the total number of tons reduced, tons reduced per year, average cost per ton, grant recipients and type of project funded. During the first grant cycle for 2008, which spanned January through April, TCEQ received applications for the DFW area requesting a total of approximately \$94.5 million, which exceeds the 2008 target projected in the

4 The shortfall was the result of an error in calculations.

5 Rather than allocating funds among a subset of eligible (nonattainment) counties, the State will allocate based on the cost effectiveness of each project.

6 FY08 TERP funds total approximately \$146 million and nearly \$40 million went to rebate grants, a 3rd party grant and unfunded FY07 applications, leaving approximately \$106 million for FY08. As of May 22, 2008, the DFW area implemented TERP projects totaling 18.45 tpd, but the May 13, 2005 submission projected 22.2 tpd (22.2 - 18.45 = 3.75). Assuming \$6000/ton, 250 days/yr and 7 yr project life, it will cost approx \$39,375,000 to correct the May 13, 2005 submission TERP deficiency (6000 x 250 x 7) x 3.75 = 39,375,000. The applications submitted to TCEQ for projects in DFW for FY08 were approximately \$94.5 million. Subtract the May 13, 2005 submission shortfall (\$94,500,000 - \$39,375,000) and we are left with approximately \$55,125,000. Divide by the (6000 x 250 x 7) to estimate tons reduced by projects for the applications submitted (\$55,125,000/10,500,00 = 5.25 tpd for the FY08 applications. Of the projected 14.2 tpd: 14.2 - 5.25 = 8.95 tpd, (6000 x 250 x 7) x 8.95 = \$93,975,000. Thus, the DFW goal for project applications for FY09 is approximately \$93,975,000.

7 TCEQ cannot award funds for the FY2009 applications prior to September 1, 2008, but the grant application

April 23, 2008 supplemental letter (see the docket) and is unprecedented for the DFW area.

Projected reductions are calculated based on “cost per ton” of previous projects. The cost cited by the TCEQ and used in this estimation is \$6,000/ton. Historically, TERP has provided NOx reductions in DFW with costs averaging less than \$4500/ton, and the most recent average costs are under \$4000/ton. We have reviewed the information submitted to us (including TCEQ’s April 2, 2008 TERP summary), and we agree with the State’s cost per ton analysis. We believe that the assumptions used to project emissions reductions from the TERP are conservative, and reasonable for achieving improvements in air quality.

Projects funded by TERP in the DFW area will reduce NOx emissions by March 1, 2009, and will contribute toward attainment of the 8-hour ozone NAAQS by the area’s attainment date. We are proposing to approve that the TERP program will achieve NOx emissions reductions of 22.2 tpd and 14.2 tpd, based on the May 13, 2005 and the April 23, 2008 submittals combined.

ii. Discrete Emission Credits (DECs).

A DEC represents one ton of certified emissions reductions generated over a discrete time period. DEC’s can be generated by discrete reductions in criteria pollutants, with the exception of lead, from stationary, area or mobile sources statewide. When a stationary or area source generates a DEC it is known as a discrete emission reduction credit (DERC); when a mobile source generates a DEC it is known as a mobile discrete emission reduction credit (MDERC). The use of the term “DERC” collectively refers to DERCs and MDERCs unless specifically stated as only applying to stationary DEC’s. Once certified by the TCEQ, a DERC can either be banked for future use or used by a source for a variety of uses, including to exceed allowable permit limits, and to meet SIP requirements under 30 TAC Chapters 114, 115, and 117. The

process could begin prior to that date.

authority to generate and use DERCs within Texas is found at 30 TAC Chapter 101, Subchapter H, Division 4 – Discrete Emission Credit Banking and Trading (the DERC rule). EPA granted final conditional approval of the Texas DERC rule on September 6, 2006 (71 FR 52703).⁸

Since the use of DERCs will increase emissions in an area, the DFW attainment demonstration must account for the possibility that all DERCs will be used in the nonattainment area (See section 12.5(d) of EPA Guidance entitled “Improving Air Quality with Economic Incentive Programs,” EPA-452/R-01-001, January 2001 (Economic Incentive Program (EIP) Guidance)). The TCEQ Emissions Bank currently has 20.4 tpd of DFW NO_x DERCs. The DFW attainment demonstration photochemical modeling accounted for the possibility that all 20.4 tpd credits would be used in the attainment year. Section 16.15 of EPA’s EIP Guidance provides that States may use an alternative to predicting that all DERCs will be used in the attainment year by establishing an enforceable mechanism to restrict the use of banked emission reductions to ensure attainment goals. TCEQ determined that restricting the use of DERCs to no more than 3.2 tpd would provide for attainment and be consistent with the flexibility of the DERC program. In a letter dated April 23, 2008, TCEQ provided economic and photochemical sensitivity analyses supportive of this enforceable mechanism.

Our proposed approval of the 8-hour DFW SIP is conditioned on the TCEQ submitting a complete SIP revision that provides a 3.2 tpd restriction on the amount of DERCs available for use in DFW beginning March 1, 2009. The SIP revision may provide that the amount of DERCs available for use beginning January 1, 2010, could increase above 3.2 tpd if the revision provides an enforceable mechanism and a justification that the increase is consistent with attainment and

⁸ TCEQ submitted revisions to the DERC rule as a SIP revision on October 24, 2006. The revisions included the changes to address our conditional approval and other revisions identified in Texas Senate Bill 784. EPA is

maintenance of the 1997 8-hour ozone standard. In a letter dated June 13, 2008, TCEQ committed to adopting these conditions. Specifically, the TCEQ committed to submitting a SIP revision for the DERC rule that adopts the necessary enforceable mechanism no later than March 1, 2009. If Texas intends to allow for more than 3.2 tpd of DERCs to be used beginning January 1, 2010, then the SIP revision must also provide appropriate limits on the use of DERCs and a detailed justification explaining how the future adjustments to the allowed DERC usage will be consistent with continued attainment of the 8-hour ozone standard. The justification must provide sufficient detail such that the public can be assured that attainment will continue to be projected in future years. The justification and methodology for any increase in allowable DERC usage must be fully identified in the TCEQ rulemaking and SIP submittal process.

The SIP revision submitted by March 1, 2009, must adequately provide for continued attainment, and include the justification and/or methodology used by TCEQ to increase the amount of DERCs allowed for use in DFW starting in calendar year 2010. The justification provided by TCEQ must satisfy section 110(l) of the Act and demonstrate that the increase will not interfere with attainment or any other applicable measure of the Act. The analysis to satisfy section 110(l) will need to address both quantity and spatial allocation impacts of increased DERC usage on ozone levels.

We will also consider whether TCEQ restricted allowable DERC usage to 3.2 tpd consistent with the attainment demonstration for the year 2009. The DERC rule enables the TCEQ Executive Director (ED) to approve Notice of Intent to Use Forms up to 90 days prior to the use period. Therefore, it is possible that the ED could approve the use of DERCs for a time period including March 1, 2009 and any time thereafter, before the 3.2 tpd restriction has been

currently evaluating whether the SIP revision satisfies the conditional approval commitments.

adopted by the TCEQ and submitted as a SIP revision. At the time EPA takes final action on the proposed conditional approval, EPA will review all Notice of Intent to Use Forms that have been approved for use in 2009 to ensure that the total amount of DERCS approved for use beginning on March 1, 2009 does not exceed 3.2 tpd.

E. Reasonably Available Control Measures (RACM).

The RACM requirement applies to all nonattainment areas that are required to submit an attainment demonstration. Section 172(c)(1) of the Act requires SIPs to provide for the implementation of all RACM as expeditiously as practicable and for attainment of the standard. EPA interpreted the RACM requirements of 172(c)(1) in the General Preamble to the Act's 1990 Amendments (April 16, 1992, 57 FR 13498) as imposing a duty on States to consider all available control measures and to adopt and implement such measures as are reasonably available for implementation in the particular nonattainment area. EPA also issued a memorandum reaffirming its position on this topic, "Guidance on the Reasonably Available Control Measures (RACM) Requirement and Attainment Demonstration Submissions for Ozone Nonattainment Areas," John S. Seitz, Director, Office of Air Quality Planning and Standards, dated November 30, 1999. In addition, measures available for implementation in the nonattainment area that could not be implemented on a schedule that would advance the attainment date in the area would not be considered by EPA as reasonable to require for implementation. EPA indicated that a State could reject certain measures as not reasonably available for various reasons related to local conditions. A state could include area-specific reasons for rejecting a measure as RACM, such as the measure would not advance the attainment

date, or was not technologically and economically feasible. Although EPA encourages areas to implement available RACM measures as potentially cost-effective methods to achieve emissions reductions in the short term, EPA does not believe that section 172(c)(1) requires implementation of potential RACM measures that either require costly implementation efforts or produce relatively small emissions reductions that will not be sufficient to allow the area to achieve attainment in advance of full implementation of all other required measures.

The TCEQ provided the DFW RACM analysis in Appendices K, L and M of the SIP submittal. Texas evaluated control strategies for NO_x and VOC emissions, from area, point and mobile (on-road and non-road) sources. The candidate strategies were identified by reviewing documents published by multi-state air planning organizations, EPA documents, and proposed and approved control strategies for nonattainment areas in other states (see list in the TSD). As discussed in Chapters 2 and 3 of the SIP submittal, sensitivity analyses and the photochemical modeling indicate that DFW ozone is more responsive to NO_x reductions than VOC reductions. Based upon the analyses and modeling, only large reductions of VOC emissions, over 100 tpd, would advance the attainment date in DFW. We were unable to identify any additional available evaluated measures that cumulatively would provide 100 tpd in VOC emissions reductions and thus, advance the attainment date for the DFW area. Many measures to reduce VOCs are already in place, through state and Federal mobile source programs and rules to reformulate solvents, including the recently published Federal rules for Architectural and Industrial Coatings (73 FR 15604, March 24, 2008), which Texas estimates could reduce VOC emissions in the DFW area by 12.5 tpd. On November 15, 2006, TCEQ extended the VOC RACT requirements to include all nine counties in the DFW area; we are acting on these measures in a separate rulemaking,

though in Section VI we are evaluating whether these rules implement RACT. Our analysis showed that the State already is controlling the significant VOC stationary and mobile sources to RACM levels in the specific DFW area. For more detail, see the TSD.

The majority of NOx emissions in the DFW area come from mobile sources and industrial processes; emissions of NOx have been reduced to a large extent with controls on EGUs and improved mobile source programs. Our evaluation of Texas' modeling analyses found that NOx reductions of at least 40 tpd would be needed to advance the attainment date by one year. This is because at least 40 tpd of reductions will occur in the last year of the plan. We were unable to identify any additional evaluated measures that cumulatively would provide 40 tpd in NOx emissions reductions and thus, potentially advance the attainment date for the DFW area. Many NOx control measures are already in place in the nine counties and in the eastern half of Texas. Texas extended the NOx RACT requirements to include all of the nine counties. Texas adopted new NOx control measures for ICI Sources (brick, ceramic and lime kilns; glass melting furnaces, etc); EGFs; Cement Kilns; and Stationary Internal Combustion (IC) Engines (gas-fired, diesel and dual-fuel) in the nine counties. Texas also adopted new NOx control measures for East Texas Combustion Sources located outside of the DFW area.

We also reviewed whether there were any additional available evaluated strategies to reduce NOx emissions from mobile sources. Our analysis showed that the State SIP has in place TCMs, VMEP, TERP, ACT and a motor vehicle I/M program. Several of the measures on the State's list are already covered under the TCMs, VMEP, TERP and ACT programs and several other measures are being implemented by various cities within the DFW area. Our analysis showed that the State is controlling the significant NOx stationary and mobile sources to RACM

levels.

The State estimated that NOx emissions reductions of approximately 23 tpd from point sources and approximately 20 tpd from fleet turnover will be in place in the DFW area by March 1, 2009. Given the control strategies already in place for the DFW area, any additional available measures would not advance attainment. Moreover, we note that in order to advance attainment by a year (i.e., by June 15, 2009), the State would have had to implement any additional control measures needed for attainment by the beginning of the 2008 ozone season, which has already passed. Thus, at this time, it would be impossible to implement additional controls that would advance attainment. EPA has reviewed the RACM analysis provided in the SIP submittal for the DFW area and believes that the State has included sufficient documentation concerning the rejection of certain available measures as RACM for the DFW area.

We propose that any other available evaluated measures are not reasonably available for the DFW area, because they are either economically and/or technically infeasible, or would not produce emissions reductions sufficient to advance the attainment date in the DFW area and, therefore, should not be considered RACM. For more information, see the TSD.

F. Failure-to-Attain Contingency Measures Plan.

Section 172(c)(9) of the Act requires nonattainment SIPs to provide for a contingency plan that will take effect without further action by the State or EPA if an area fails to attain the standard by the applicable date. While the Act does not specify the type of measures or quantity of emissions reductions required, EPA provided guidance on contingency plans in the General Preamble (57 FR 13498, 13510). See the TSD for a list of applicable guidance documents.

EPA interprets sections 172 and 182 of the Act to require States with moderate or above ozone nonattainment areas to include contingency measures to implement additional emission reductions of 3% of the adjusted base year inventory in the year following the year in which the failure has been identified. EPA based the 3% recommendation in the General Preamble on the fact that moderate and above areas are generally required through the ROP/RFP requirements to achieve an average of 3% reduction per year until they attain the NAAQS. The state must specify the type of contingency measures, the quantity of emissions reductions, and show that the measures can be implemented with no further rulemaking and minimal further action by the state.

For the failure-to-attain 1997 8-hour ozone contingency measures plan, Texas identified contingency measures that were adopted for the 1-hour ozone standard but never implemented. The contingency measures include State VOC rules approved by EPA in the Texas SIP for Offset Lithographic Printing at 30 TAC 115.449(c) (approved April 6, 2000, 65 FR 18003, revised July 16, 2001, 66 FR 36917), Degassing or Cleaning of Stationary, Marine, and Transport Vessels at section 115.549(b) (approved January 26, 1999, 64 FR 03841, revised February 27, 2008, 73 FR 10380) and Petroleum Dry Cleaning at section 115.559(a) (approved January 26, 1999, 64 FR 03841, revised February 27, 2008, 73 FR 10383). Our review of the May 30, 2007 SIP revision indicates that the failure-to-attain 1997 8-hour ozone contingency measures plan does not identify sufficient measures to achieve additional emissions reductions of 3% of the emissions in the adjusted 1999 base year emissions inventory, as required by our interpretation of the Act (see EPA's General Preamble at 57 FR 13498, 13510). Rather, the identified controls would only achieve 0.35% reduction.

Texas provided a commitment letter, which identifies contingency measures that the State will recommend for adoption through rulemaking and has committed to submit to EPA no later than March 1, 2009 as a SIP revision (see letter of June 13, 2008, in the docket) adopted rules that could achieve the additional reduction, providing a total of 3%, for the failure-to-attain contingency measure plan. The commitment letter states that Texas will adopt and submit no later than March 1, 2009 to EPA as a SIP revision, subject to the SIP public participation requirements and commission approval, a revised failure-to-attain 1997 8-hour ozone contingency measures plan that would include the Federal Motor Vehicle Control programs (FMVCP) occurring after the 2009 ozone season, in addition to the already-identified VOC rules described above. The FMVCP requires controls on both on- and non-road motor vehicles, providing emissions reductions as the fleet is replaced with newer vehicles (turns over). Texas' April 23, 2008 letter estimates projected emissions reductions attributed to this 2009-2010 fleet turnover from mobile sources occurring after the 2009 ozone season to be approximately 20.78 tpd of NO_x and 4.86 tpd of VOCs. The emissions inventory from this attainment demonstration SIP submittal, which uses 1999 as the base year, estimates emissions from anthropogenic sources are 754.56 tpd NO_x and 520.08 tpd VOC. Texas projects the 2009-2010 fleet turnover reductions alone will provide a 2.75% reduction of NO_x and a 0.93% reduction of VOC from the 1999 base year emissions. Texas also estimates that the contingency measures identified in the May 30, 2007 submittal provide a cumulative total of 1.8 tpd VOC reductions.

We have reviewed the May 30, 2007, SIP revision and the State's commitment and determined that the VOC and fleet turnover control measures identified are specific and that the VOC measures are enforceable because they are approved into the SIP and will become effective

if the area fails to attain the standard by the applicable date. We have determined that the quantity of emissions reductions exceeds 3% of the 1999 base year emissions inventory based upon Texas' estimate that the 2009-2010 fleet turnover reductions will provide a 2.75% reduction of NOx and a 0.93% reduction of VOC from the 1999 inventory. We agree with the State's projected emissions reductions. We believe Federal measures already scheduled for implementation and not relied upon in the attainment demonstration are appropriate contingency measures (Phase 2 Rule, 70 FR 71612, 71651).

Therefore, we are proposing that the contingency measures identified in the SIP submittal and in the State's commitment letter would meet Federal requirements for a 1997 8-hour ozone failure-to-attain contingency measures plan. We are proposing to approve the 1997 8-hour ozone failure-to-attain contingency measures plan for the DFW area, contingent upon the State's adoption of and submittal to EPA, of a new failure-to-attain contingency measures plan that includes the above-described VOC rules and the additional described control measure, fleet turnover from mobile sources after the 2009 ozone season. If Texas submits a revised failure-to-attain 1997 8-hour ozone contingency measures plan that includes the specifically identified measures, i.e., the VOC rules and fleet turnover after 2009 from mobile sources, we will move forward with a final full approval of the 1997 8-hour ozone failure-to-attain contingency measure SIP for the DFW area. Any comments concerning whether these four measures are sufficient to meet the failure-to-attain contingency measure requirement should be raised at this time. EPA does not plan to provide an additional opportunity for comment unless the State modifies these measures or submits a failure-to-attain contingency measures plan relying on other measures. Because the failure-to-attain contingency measure SIP is a necessary component of the

attainment demonstration, if Texas fails to submit such a SIP revision, we cannot move forward with a final conditional approval action on the DFW 1997 8-hour ozone attainment demonstration SIP, as we have also proposed in this notice.

G. Attainment Motor Vehicle Emission Budgets (MVEBs).

The 1997 8-hour ozone attainment demonstration SIP must include MVEBs for transportation conformity purposes. Conformity to a SIP means that transportation activities will not produce new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS. It is a process required by section 176(c) of the Act for ensuring that the effects of emissions from all on-road sources are consistent with attainment of the standard. EPA's transportation conformity rules at 40 CFR 93 require that transportation plans and related projects result in emissions that do not exceed the MVEB established in the SIP. The attainment year established in the DFW 1997 8-hour ozone attainment demonstration SIP is the calendar year of the final ozone season for determining attainment, which is 2009. See 40 CFR 93.118(b).

The attainment MVEB is the level of total allowable on-road emissions established by the control strategy implementation plan. Ozone attainment demonstrations must include the estimates of motor vehicle VOC and NO_x emissions that are consistent with attainment, which then act as a budget or ceiling for the purposes of determining whether transportation plans, programs, and projects conform to the attainment demonstration SIP. In this case, the attainment MVEBs set the maximum level of on-road emissions that can be produced in 2009, when considered with emissions from all other sources, which demonstrate attainment of the 1997 8-hour ozone NAAQS.

The 2009 attainment MVEBs established by this plan and that the EPA is proposing to incorporate into the DFW SIP are listed in Table 12:

Table 12. 2009 DFW Attainment Motor Vehicle Emissions Budgets (tpd)

Pollutant	2009
NOx	186.81
VOC	99.09

We found the 2009 attainment MVEBs (also termed transportation conformity budgets) “adequate” and on June 28, 2007, the availability of these budgets was posted on EPA’s web site for the purpose of soliciting public comments. The comment period closed on July 30, 2007, and we received no comments. On March 21, 2008, we published the Notice of Adequacy Determination for these attainment MVEBs (73 FR 15152). Once determined adequate, these attainment MVEBs must be used in future DFW transportation conformity determinations.

The attainment budget represents the on-road mobile source emissions that have been modeled for the attainment demonstration. The budget reflects all of the on-road control measures in that demonstration. We believe that the MVEBs are consistent with all applicable SIP requirements and thus are proposing to approve adoption of the 2009 attainment MVEBs into the DFW 1997 8-hour ozone attainment demonstration SIP. All future transportation improvement programs, projects and plans for the DFW area will need to show conformity to the budgets in this plan.

H. Section 110(l) Analysis.

Section 110(l) of the Act precludes EPA from approving a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and RFP (as

defined in section 171), or any other applicable requirement of the Act. EPA interprets section 110(l) to allow substitution of a control measure in the SIP with a different control measure if the new measure will accomplish new and contemporaneous emissions reductions to offset the loss of the control measure being removed from the SIP. We also ensure that air quality will not degrade and that progress toward attainment will continue as EPA promulgates revised ozone standards.

As of 2006, the DFW area is monitoring attainment of the 1-hour ozone standard (now revoked. See Phase I Rule, 69 FR 23951). Measures from the 2000 1-hour SIP have been approved into the SIP and remain enforceable, with one exception. The Texas Legislature caused the statewide residential water heater emission standards to be relaxed in 2005 due to the inability of water heater manufacturers to supply units compliant with the rule. Therefore, the more stringent rule was never implemented. TCEQ requested that this measure be revised in the SIP and substituted with new and contemporaneous reductions of NO_x emissions from the TERP program that were in excess of those required by the April 27, 2005 DFW 5% IOP SIP. EPA agrees with the State rationale. EPA and the State projected NO_x reductions of 0.5 tpd from the State's residential water heater rule in the DFW area. The reductions from the TERP program in the DFW 5% IOP SIP were projected to provide 22.2 tpd in NO_x emissions reductions, or an excess of 4.23 tpd over the 5% IOP. The actual NO_x emissions reductions achieved however, were 18.45 tpd ($22.2 - 18.45 = 3.75$ tpd). Even with this change in the projected emissions reductions of NO_x in the IOP Plan, however, the projected NO_x reductions used to make up for the revision of the residential water heater rule are nearly met ($4.23 - 3.75 = 0.48$). And, per the discussion in Section III-C above, the shortfall of 0.02 tpd needed to make up for the revised

residential water heater rule is projected to occur.

In summary, the State adopted the water heater rule for the purpose of contributing to attainment of the 1-hour NAAQS. The emission standards in the rule were made less stringent due to technical infeasibility. The DFW area has monitored attainment of the 1-hour NAAQS. TCEQ substituted new and contemporaneous reductions of NO_x emissions from the TERP program. In addition, Texas has demonstrated attainment of the 1997 8-hour NAAQS using the revised water heater rule. We therefore are proposing to find that the revised State rule for residential water heaters meets section 110(l) of the Act for the DFW area.

VI. Reasonably Available Control Technology (RACT).

Sections 172(c)(1) and 182 of the Act require areas that are classified as moderate or above for ozone nonattainment to adopt Reasonably Available Control Technology (RACT) requirements for sources that are subject to Control Techniques Guidelines (CTGs) issued by EPA and for "major sources" of VOC and NO_x, which are ozone precursors. See 42 U.S.C. sections 7502 (c)(1) and 7511a (b) and (f). RACT is defined as 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 FR 53762, September 17, 1979). A CTG provides information on the available controls for a source category and provides a "presumptive norm" RACT. In this action, EPA is addressing RACT for VOCs in the DFW area for the 1997 8-hour ozone standard, and for the 1-hour standard; RACT for NO_x in DFW will be addressed in a separate rulemaking.

EPA published the 8-hour ozone designations and the Phase 1 Rule for implementing the

8-hour ozone standard and the designations for the 8-hour ozone standard on April 30, 2004 (69 FR 23858 and 69 FR 23951, respectively). At the time of designation, DFW was a nonattainment area for the 1-hour ozone standard and had two outstanding 1-hour ozone obligations: (1) the area did not have an approved 1-hour ozone attainment demonstration; and (2) the area did not have approved RACT requirements for VOC emissions (VOC RACT). All other 1-hour requirements were approved. For additional information, see the TSD.

According to EPA's Phase 2 Rule (70 FR 71612, November 29, 2005), areas classified as moderate nonattainment or higher must submit a demonstration, as a revision to the SIP, that their current rules fulfill 1997 8-hour ozone RACT requirements for all CTG categories and all major non-CTG sources. Since DFW is classified as moderate for the 1997 8-hour ozone standard, for purposes of meeting the 8-hour RACT requirement, the DFW area must demonstrate RACT level controls for sources covered by a CTG document, and for each major non-CTG source (100 tpy or greater potential to emit). The Phase 2 Rule, section IV.G states, in part, that where a RACT SIP is required, State SIPs implementing the 8-hour standard generally must assure that RACT is met, either through a certification that previously required RACT controls represent RACT for 8-hour implementation purposes or through a new RACT determination. The RACT SIP submitted by TCEQ provides an analysis which demonstrates how the DFW area meets RACT requirements for the 1997 8-hour ozone NAAQS. See the TSD for more information about the State's VOC RACT analysis for DFW.

In addition, the Phase 1 Rule provides that 1-hour ozone nonattainment areas are required to adopt and implement "applicable requirements" according to the area's classification under the 1-hour ozone standard (see 40 CFR 51.905(a)(i)). The DFW area was still classified as a serious

nonattainment area at the time of the 8-hour designation and an outstanding “applicable requirement” for the DFW area is VOC RACT. In the four core counties, which comprised the 1-hour ozone nonattainment areas, Texas previously adopted rules to address RACT requirements for all source categories covered by EPA CTGs, and to address major sources at the moderate area major source threshold of 100 tpy. The EPA approved these rules as meeting VOC RACT for a moderate 1-hour ozone nonattainment area (60 FR 12438). The reclassification of the area from moderate to serious for the 1-hour ozone standard, on February 18, 1998 (63 FR 8128), required Texas to ensure that RACT was in place on non-CTG sources down to 50 tpy. Texas submitted a SIP to address this requirement and we proposed to approve the SIP submission as meeting the 1-hour ozone serious area VOC RACT requirements for the DFW 1-hour ozone nonattainment area on January 18, 2001 (66 FR 4756). Although we received no comments on that proposal, we never took final action.

We are re-opening the comment period on that proposed action for 1-hour ozone serious area RACT requirements, and intend to take final action on it in the same rulemaking where we finalize action on the VOC RACT 1997 8-hour ozone proposal. If these proposed actions are finalized, the DFW area will have fulfilled all of its outstanding 1-hour ozone VOC RACT obligations, and met the 1997 8-hour ozone VOC RACT requirements.

The State’s submittal for the DFW area for meeting the 1997 8-hour ozone RACT requirement included, among other things, the following two components:

- (a) A list of all CTG or ACT source categories which matched those categories with one or more corresponding State rules which implements RACT and the affected sources in the nine counties,⁹ and
- (b) An analysis of RACT for all major sources in the nine counties that are not covered by a CTG or ACT and how these are controlled to meet RACT.

Appendices to the SIP submittal identified the sources and the currently applicable controls, which EPA had previously approved as meeting RACT for the 1-hour standard, and included an analysis of whether additional RACT controls were required for both CTG and non-CTG sources.

To ensure RACT was in place for all major sources, the State first searched its permitting database to identify all sources that emit or have the potential to emit at least 50 tpy of VOC in the DFW 8-hour ozone nonattainment area. The State then provided a list of each major source in a source category covered by a CTG/ACT and the State VOC RACT Rule applicable to such major sources. The State analyzed whether the existing CTG/ACT VOC RACT rules should be more stringent. Second, the State listed potential major sources in source categories possibly not covered by a CTG/ACT, and the State provided further technical analysis for these.

The State's RACT SIP analysis was available for public comment prior to adoption by the State. EPA evaluated the following elements of TCEQ's VOC RACT SIP submittal for the DFW Area:

- State Rules Addressing VOC RACT Requirements for Sources Covered by a CTG/ACT.

⁹ An earlier VOC-related Texas rulemaking was adopted on November 15, 2006, and submitted to EPA on December 13, 2006, as a SIP revision, which extended VOC control requirements to facilities located in Ellis, Johnson, Kaufman, Parker, and Rockwall counties. This rulemaking subjected affected VOC sources in the five counties mentioned above, to the same emissions limitation, control, monitoring, testing, recordkeeping, and reporting requirements in effect in the four core counties. As a result of this action, which EPA is proposing to approve in a separate action, these new VOC control requirements will be consistent for all nine counties in the DFW area. Approval of VOC RACT for the DFW area is contingent upon final approval of this related rulemaking, which

- Potential Major VOC Emissions Sources possibly not covered by a CTG/ACT.

A list of documents used to support our review and evaluation is available in the TSD.

The State's submittal included a table of all of the CTG and ACT documents that have been issued by EPA and the corresponding State Rules, contained at 30 TAC 115, which establish RACT rules for the sources identified in each CTG or ACT. For two of the VOC source categories (shipbuilding and rubber tire manufacturing), TCEQ provided a negative declaration certifying that there are no sources of VOCs for those categories in the DFW area. Texas concluded that all other CTG sources currently have RACT-level controls.

Since RACT can change over time as new technology becomes available or the cost of existing technology decreases, it is important that states review new technologies. As clarified in EPA's Phase 2 Rule, "States and other interested parties should consider available information that may supplement the CTG and ACT documents" (70 FR at 71655). In developing this submittal, TCEQ reviewed new technologies and current control technologies and methodologies implemented as RACT in other ozone nonattainment areas. TCEQ found that Texas' VOC RACT rules for CTG/ACT covered sources are consistent with or more stringent than the current control technologies and methodologies implemented in other ozone nonattainment areas, which were determined to fulfill RACT requirements. EPA agrees that the VOC controls in place for DFW meet RACT. Please see the TSD for additional information and analysis.

As previously discussed, as part of addressing moderate area 1-hour ozone requirements, EPA approved the Texas VOC rules implementing RACT for all required CTG or ACT categories in the four core counties and for major sources emitting 100 tpy or more VOC. The State extended the previously approved moderate provisions to the five new nonattainment counties,

extends VOC controls from the four core counties to the five additional counties.

added as part of the DFW 1997 8-hour ozone nonattainment area. Additionally, the State had adopted for the four core counties, which comprised the 1-hour nonattainment area, and we had proposed to approve RACT rules for all sources emitting 50 tpy or more VOC as part of addressing the 1-hour serious area requirements.

For the CTG/ACT categories, based on EPA's review of the State submittal, we conclude that the VOC controls in place meet RACT. EPA finds that a negative declaration for two categories (shipbuilding and rubber tire manufacturing) in the DFW area is appropriate. Based on (1) this analysis, and (2) final approval of the rule extending the CTG VOC controls throughout the 9-county DFW area (see footnote 9), EPA believes the DFW area has met all the applicable requirements to have VOC RACT rules for all CTG sources.

The State's submittal also included a list of all potential major sources of VOC emissions within source categories possibly not covered by a CTG (or ACT) in the DFW area, together with a demonstration of how each source was determined to fulfill RACT requirements. Given its classification as a moderate ozone nonattainment area, TCEQ was required to ensure RACT is in place for all sources that emit or have the potential to emit at least 100 tpy (section 182(d) of the Act). TCEQ looked at sources with a potential to emit as low as 50 tpy of VOC to ensure RACT was in place for major sources not covered by a CTG or ACT. The TCEQ's analysis shows how each major source meets VOC RACT based on currently applicable controls and why no additional RACT controls should be required.

The State identified 36 potentially major sources of VOC emissions in the DFW area, based on the 2002 emissions inventory. Of these 36 potential sources, 20 were determined by TCEQ to be covered by rules that meet RACT, and one was shut down in 2004 (please see the

TSD). Based upon further analysis of the remaining 15 sources, the State determined that three of the sources were not major sources. Their allowable emissions are less than 100 tpy and therefore are not subject to the RACT requirements; these are two asphalt roofing companies and a brick kiln.

Eleven of the 15 sources are major sources, but fall within a source category covered by the State's VOC RACT rules. One of the 11 sources, Rock-Tenn Corporation, is subject to the State's VOC RACT paper coating rule. The other 10 sources are subject to the State's VOC RACT vent gas rule: Dartco, Chaparral Steel, Hensley Industries, Johns Manville International, Owens-Corning Waxahachie, Exide, Ex-Tex LaPorte LP, TXU Generation Co, Midlothian Energy, and Holcim. The only comment the State received regarding the need for additional VOC RACT controls was that a thermal oxidizer should be used to control VOC emissions from the cement kiln. However, a cost analysis of the use of thermal oxidizers shows the cost to be beyond RACT. Detailed cost information is available in the TSD. The TCEQ's analysis shows that no additional RACT controls are required.

The remaining source out of the original 15 was determined to be major and not within a source category controlled by the State's VOC RACT rules: a beverage alcohol production facility (Miller Brewing). Most of this facility's VOC emissions are fugitive emissions due to product loss in the packaging area. In its RACT determination for Miller Brewing Co, Texas stated, "VOC emissions are controlled per BACT in NSR Permit No. 3133. Additional control for RACT is not economically feasible" (TCEQ Appendix J). These types of sources have an economic incentive to operate efficiently, in order to reduce leakage of product, with the result in minimization of VOC emissions. Therefore, EPA is proposing to find that this beverage alcohol

production facility meets RACT.

EPA is proposing to find that the DFW 1997 8-hour ozone nonattainment area SIP meets the VOC RACT requirements based on current applicable rules for all sources addressed by a CTG and all major non-CTG sources. EPA proposes to approve the State's submittals demonstrating that the DFW area meets the VOC RACT requirements for the 1-hour ozone standard and the 1997 8-hour ozone standard.

VII. Proposed Action.

We propose to conditionally approve the 1997 8-hour ozone attainment demonstration SIP revision for the DFW 1997 8-hour ozone nonattainment area, submitted by the State on May 30, 2007, and supplemented on April 23, 2008. Our proposed approval of the 8-hour DFW SIP is conditioned on Texas adopting and submitting to EPA prior to March 2009, a complete SIP revision to limit the use of DERCS, beginning March 1, 2009. Our proposed conditional approval is contingent upon Texas submitting the failure-to-attain contingency measures plan SIP as specified in this proposal prior to the time EPA takes final action on the attainment demonstration SIP. We are proposing to find that all RACM for VOC and NO_x have been implemented in the DFW area. We found the attainment MVEBs to be adequate on March 21, 2008 (73 FR 15152) and propose to approve the 2009 attainment MVEBs into the DFW SIP. We are proposing to approve into the DFW SIP the VMEP and TCMs submitted on May 30, 2007. We cannot finalize conditional approval of the DFW 1997 8-hour ozone attainment demonstration SIP unless and until (1) the State meets the contingency regarding the failure-to-attain contingency measure requirement as specified in this proposal, and (2) we have approved

the DFW RFP Plan and all of the control strategies relied upon in the attainment demonstration.

The control strategies are specifically listed below:

- a. The DFW area's RFP plan, associated MVEBs, and RFP contingency measures;
- b. The April 9, 2003, Alcoa Federal Consent Decree;
- c. The rich burn gas-fired engine rule in the 33 counties east of DFW;
- d. The DFW major source rule;
- e. The DFW minor source rule;
- f. The DFW gas-fired engine rule;
- g. The DFW EGUs rule;
- h. The DFW non-EGUs rule;
- i. The Auxiliary steam boilers in the 5 counties;
- j. The Stationary gas turbines rule in the 5 counties;
- k. The VOC Rules adopted on 11/15/06 by TCEQ;
- l. The DFW Energy Efficiencies Program;
- m. The Cement kiln rules;
- n. The finding that DFW is meeting RACM;
- o. The VMEP;
- p. The TCMs; and
- q. The failure-to-attain Contingency Measures Plan, revised as specifically described today.
- r. An enforceable mechanism to limit the use of DERs, as specifically described today.

We are taking action on a number of the items listed above in separate Federal Register actions.

We are proposing to approve that VOC rules implemented in all nine counties meet the RACT requirements. These rules will result in emissions reductions needed to help the DFW area attain the 8-hour NAAQS for ozone.

EPA is proposing to approve and conditionally approve these various plans in accordance with section 110 and part D of the Act and EPA's regulations.

VIII. Statutory and Executive Order Reviews.

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely proposes to approve state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);

- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference,
Intergovernmental relations, Nitrogen dioxides, Ozone, Reporting and recordkeeping
requirements, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: JUL 01 2008,

A handwritten signature in black ink, appearing to read "Daniel J. Sullivan", is written over a horizontal line.

Regional Administrator,
Region 6