

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: Final rule; conditional approval and full approval.

SUMMARY: The EPA is conditionally approving the Dallas/Fort Worth (DFW) 1997 8-hour ozone State Implementation Plan (SIP) revisions submitted on May 30, 2007 and November 7, 2008, as supplemented on April 23, 2008. This final conditional approval action is for the attainment demonstration SIP, which includes the 2009 attainment Motor Vehicle Emissions Budgets (MVEBs), the Reasonably Available Control Measures (RACM) demonstration, and the failure-to-attain contingency measures plan. The approval is conditioned upon Texas adopting and submitting to EPA prior to March 1, 2009, a complete SIP revision to limit the use of Discrete Emission Reduction Credits (DERCs), beginning in March 2009. If the State meets its commitment to submit the DERC SIP revision, EPA will undertake additional rulemaking action on the approvability of the DERC SIP revision and, if EPA approves that SIP revision, the conditional approval of the attainment demonstration will be converted to a full approval at that time.

We are fully approving two local control measures relied upon in the attainment demonstration, the Voluntary Mobile Source Emission Reduction Plan (VMEP) and

Transportation Control Measures (TCMs). We are also fully approving the DFW area SIP as meeting the Reasonably Available Control Technology (RACT) requirement for volatile organic compounds (VOCs) for both the 1-hour and 1997 8-hour ozone standards. These actions will result in emissions reductions in the DFW 8-hour ozone nonattainment area and meet section 110 and part D of the Act and EPA's regulations.

DATE: This final rule is effective on **[Insert date 30 days from date of publication in the Federal Register]**.

ADDRESSES: EPA has established a docket for this action under Docket No. EPA-R06-OAR-2007-0524. All documents in the docket are listed on the *www.regulations.gov* website.

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, is not placed on the Internet and will be publicly available only in hard copy form.

Publicly available docket materials are available either electronically through *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 or Mr. Bill Deese at 214-665-7253 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.

Table of Contents

- I. Background
- II. What Action is EPA Taking?
 - A. What is EPA Conditionally Approving in this Action?
 - B. What is EPA Fully Approving in this Action?
- III. What Happens if the State Fails to Meet the Condition?
- IV. What Other Elements Must Be Approved to Allow this Final Conditional Approval of the Attainment Demonstration SIP?
- V. Comments

- A. What Comments did EPA Receive on the July 14, 2008 Rulemaking for DFW?
 - B. General Comments
 - C. Comments on Texas Emissions Reduction Plan (TERP)
 - D. Comments on Photochemical Modeling, Weight of Evidence Analyses, and Assessment of Demonstration of Attainment
 - E. Comments on Discrete Emission Reduction Credits (DERCs)
 - F. Comments on Reasonably Available Control Measures (RACM)
 - G. Comments on the Failure-to-Attain Contingency Measures Plan
 - H. Comments on the Attainment Motor Vehicle Emission Budgets (MVEBs)
 - I. Comments on the Voluntary Mobile Source Emission Reduction Program (VMEP)
- VI. Final Action
- VII. Statutory and Executive Order Reviews

I. Background

On July 14, 2008, 73 FR 40203, EPA proposed conditional approval of the DFW area's 1997 8-hour ozone attainment demonstration SIP revision, including the attainment MVEBs, RACM demonstration, and failure-to-attain contingency measures plan. We proposed to fully approve two local control measures relied upon in the attainment demonstration – the VMEP and TCMs. We also proposed to fully approve the DFW area SIP as meeting the RACT requirement for VOCs for both the 1-hour ozone standard and the 1997 8-hour ozone standard.

The proposed approval of the attainment demonstration SIP is conditioned upon Texas adopting and submitting to EPA 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. If Texas meets the commitment to submit the DERC SIP revision, EPA will undertake rulemaking to determine whether to approve the revision and, if approved, EPA would convert the conditional approval of the attainment demonstration to a full approval.

We also proposed that final conditional approval of the attainment demonstration SIP was contingent upon Texas submitting to EPA a complete and approvable SIP revision for the attainment demonstration SIP's failure-to-attain contingency measures plan that meets section 172(c)(9) of the Act. EPA specifically identified in the proposal the elements such submission must contain. The failure-to-attain contingency measures plan was submitted to EPA on November 7, 2008, and we have determined that the plan is consistent with the elements established in our proposed rule (73 FR 40203) and meets section 172(c)(9) of the Act. Because the State submitted a complete failure-to-attain contingency measures 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, EPA can proceed with a final conditional approval. (See page 40205, third column, of the proposed action.)

Our July 14, 2008, proposal provides a detailed description of the revisions and the rationale for EPA's proposed actions, together with a discussion of the opportunity to comment.

The public comment period for these actions closed on August 13, 2008. See the Technical Support Documents (TSDs) and our proposed rulemaking at 73 FR 40203 for more information.

II. What Action is EPA Taking?

A. What is EPA Conditionally Approving in this Action?

EPA is conditionally approving the DFW 1997 8-hour ozone attainment demonstration SIP and, as part of this attainment demonstration SIP, the 2009 attainment MVEBs, RACM demonstration, and failure-to-attain contingency measures plan, submitted to EPA on May 30, 2007 and November 7, 2008, as supplemented on April 23, 2008.

Our conditional approval is based on our determination that, the modeling and weight-of-evidence show that the DFW area will attain the 8-hour ozone standard by its attainment date, as a result of the control strategies relied upon in this plan. In making this determination, we have considered the comments that we have received on our proposal. We have also considered the air quality monitoring information gathered since the proposal, the impact of the Clean Air Interstate rule (CAIR) vacatur, and the progress in implementing control measures. As the area approaches the attainment date, recent monitoring data becomes more important as an indicator of potential success. The preliminary data from 2008 shows 18 of the 20 monitors had fourth highs at 84 ppb or below and only two monitors were slightly above attainment levels at 85 ppb. With more emissions reductions to occur before the beginning of the 2009 attainment year ozone season, we believe these data provide strong support that the area will attain the standard by its attainment date of June 2010.

As described in the proposed rule, the condition that must be met for EPA to fully approve the attainment demonstration is that the TCEQ must adopt and submit to EPA a

complete SIP revision by March 1, 2009, that includes an enforceable mechanism 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 maintenance of the 1997 8-hour ozone standard. In a letter dated June 13, 2008, TCEQ committed to meeting this condition (the letter is in the docket for this rulemaking).

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 EPA and 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 by demonstrating 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.

B. What is EPA Fully Approving in this Action?

EPA is fully approving two local control measures relied upon in the attainment demonstration: the VMEP and TCMs. We are also fully approving the DFW area SIP as meeting the RACT requirement for VOCs for both the 1-hour ozone standard and the 1997 8-hour ozone standard.

III. What Happens if the State Fails to Meet the Condition?

If Texas fails to adopt and submit to the EPA a complete DERC SIP revision by March 1, 2009, EPA will issue a letter to the State converting the conditional approval of the 1997 8-hour ozone DFW attainment demonstration SIP to 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 announcing 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 proposed the DERC SIP revision for public review on August 6, 2008 and the comment period closed September 12, 2008; final adoption of the revision was on December 10, 2008, in order to meet the condition to submit a complete DERC SIP revision to EPA by March 1, 2009, and implement the DERC SIP revision by March 1, 2009. As described in the proposed rule (73 FR 40203), if the State adopts and submits to EPA by March 1, 2009, a complete DERC SIP revision, and EPA determines through rulemaking that the submitted DERC SIP revision is approvable, we will simultaneously convert the conditional approval of the attainment demonstration SIP to a full approval. If EPA cannot fully approve the SIP revision concerning

the use of DERCs in the DFW area, EPA will undertake rulemaking to disapprove the submitted DERC SIP revision and to convert the conditional approval of the attainment demonstration SIP for the DFW area to a disapproval. In such case, the 18-month clock for sanctions and the 2-year clock for a FIP would start on the effective date of final disapproval.

Today's final conditional approval of the attainment demonstration SIP remains in effect until EPA either determines that the State has not submitted a complete DERC SIP revision by March 1, 2009 or EPA completes rulemaking action either approving or disapproving a complete submitted DERC SIP submission and simultaneous with action on the DERC SIP submission takes final action to convert the conditional approval to a full approval or disapproval of the attainment demonstration.

IV. What Other Elements Must be Approved to Allow this Final Conditional Approval of the Attainment Demonstration SIP?

In our proposal, we discussed the elements that must be approved if we are to finalize the conditional approval of the attainment demonstration. In order to finalize conditional approval of the DFW 1997 8-hour ozone attainment demonstration SIP, EPA must fully approve all of the control measures relied upon in the attainment demonstration and the DFW RFP Plan with the RFP MVEBs and RFP contingency measures. We approved the DFW RFP Plan with the RFP MVEBs and RFP contingency measures on October 7, 2008 at 73 FR 58475.

The State committed to submit a rule restricting DERC usage by March 1, 2009. In addition, EPA reviewed all DERC Notice of Intent to Use Forms that the TCEQ Executive Director approved as of November 30 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.

Table 1 below lists the status of EPA action on the control measures relied upon in the attainment demonstration. The Table documents that, as of this final action, all control measures and reductions relied upon to demonstrate attainment have been reviewed and approved by EPA in this or other Federal Register Actions.

Table 1. Status of EPA Required Action on Control Strategies before Finalizing Conditional Approval of the Attainment Demonstration SIP

Measure	Status
The April 9, 2003 Alcoa Federal Consent Decree	Approved August 15, 2008 (73 FR 47835)
The DFW Energy Efficiency Measures Program	Approved August 15, 2008 (73 FR 47835)
NOx rules for IC engines in DFW	Approved August 15, 2008 (73 FR 47835)
2002 Base Year Emissions Inventory	Approved August 15, 2008 (73 FR 47835)
The VOC rules adopted by Texas on 11/15/06	Approved July 17, 2008 (73 FR 40972)
1-hour attainment determination	Approved October 16, 2008 (73 FR 61357)
East Texas Combustion Sources (i.e., the rich burn gas-fired engine rule in the 33 counties east of DFW)	Approved December 3, 2008 (73 FR 73562)
The DFW major source rule	Approved December 3, 2008 (73 FR 73562)
The DFW minor source rule	Approved December 3, 2008 (73 FR 73562)
The DFW gas-fired engine rule	Approved December 3, 2008 (73 FR 73562)
The DFW EGUs rule	Approved December 3, 2008 (73 FR 73562)
The DFW non-EGUs rule	Approved December 3, 2008 (73 FR 73562)
The Auxiliary steam boilers rule in the 5 counties	Approved December 3, 2008 (73 FR 73562)
The Stationary gas turbines rule in the 5 counties	Approved December 3, 2008 (73 FR 73562)
The Cement kiln rules	Approved simultaneously in today's Federal Register
The VMEP and its emission reductions	Approved in this rulemaking
The TCMs and the associated emission reductions	Approved in this rulemaking
The TERP emission reductions	Approved in this rulemaking as submitted in the DFW 5% IOP Plan and the DFW 1997 8-hour ozone attainment demonstration SIP

V. Comments

A. What Comments did EPA Receive on the July 14, 2008 Proposed Rulemaking for

DFW?

We received 26 comment letters on the proposed rulemaking. These comments are available for review in the docket for this rulemaking. The comment letters came from the following sources:

1. August 6, 2008 letter from Linda Koop, City of Dallas Councilmember, District 11, Chair of the Transportation and Environment Committee.
2. August 12, 2008 letter from Ramon Alvarez, PhD, for Environmental Defense Fund.
3. August 12, 2008 letter from Bill Cox, citizen.
4. August 12, 2008 letter from Margaret DeMoss, public health consultant and citizen.
5. August 12, 2008 letter from Ed Soph, citizen.
6. August 12, 2008 letter from Bob Fusinato, citizen.
7. August 12, 2008 letter from Ramsey Sprague, citizen.
8. August 13, 2008 letter from Jon Mamula, citizen.
9. August 13, 2008 letter from Kerrie Kimberling, citizen.
10. August 13, 2008 letter from Cindy Crutch, citizen.
11. August 13, 2008 letter from Becky Bornhorst, clean air advocate.
12. August 13, 2008 letter from Barbara Downey, citizen.
13. August 13, 2008 letter from Ricky Pearce, Ryan Whaley Coldiron Shandy PC, for Holcim LP.
14. August 13, 2008 letter from Neil Carman, for Sierra Club, Lone Star Chapter.
15. August 13, 2008 letter from Gina Hall, citizen.
16. August 13, 2008 letter from Molly Rooke, citizen.
17. August 13, 2008 letter from Marc Chytilo, for Downwinders At Risk and the Lone Star Chapter of the Sierra Club.
18. August 13, 2008 letter from April Johnson, citizen.
19. August 13, 2008 letter from Wendi Hammond, for KIDS 4 Clean Air and Clean Air Institute of Texas.
20. August 13, 2008 letter from Willem and Paula Noteboom, citizens.
21. August 13, 2008 letter from Susan Waskey, citizen.
22. August 13, 2008 letter from Matthew Kuryla, Baker and Botts for the BCCA Appeal Group.
23. August 13, 2008 letter from Matthew Kuryla, Baker and Botts for the 8-Hour Ozone SIP Coalition.
24. August 13, 2008 letter from Lon Burnham, State Representative, District 90, Fort Worth, Texas.
25. August 14, 2008 letter from Anna Albers, citizen.
26. August 14, 2008 letter from Sandra Soria, citizen.

B. General Comments

Comment: Several commenters urge EPA to finalize conditional approval of the attainment demonstration SIP. One supports EPA's proposed rule, recognizes the efforts of the local community, and lists some of the clean air initiatives implemented by the City of Dallas.

Response: We appreciate the support expressed in these comment letters. We applaud the actions taken by the local community and commend the local leaders and implementation staff; their work has and will continue to assist the area in reducing NO_x and VOCs, the precursors for ambient ozone pollution. EPA encourages local governments to continue to be involved in these and future local emissions reductions programs.

Comment: Two commenters disagree with EPA's position taken in the proposal that because the DFW area has an attainment deadline of June 15, 2010, air quality monitoring data for the years 2007, 2008, and 2009 would be used to make an attainment determination. Rather, using the years 2008, 2009, and 2010 would be most consistent with the Act's requirements for attainment determination. They note that the Act mandates the attainment determination be made within 6 months after the attainment date, including any extensions thereof, and be based on the area's design value as of the attainment date. Although the Phase 1 Rule defines the "attainment year ozone season" as the ozone season immediately preceding the attainment date, they contend that that regulatory definition can be read as requiring controls timely for attainment in the attainment year, as required by the statute. They do not see the definition as relevant to the timing or content of an attainment determination. EPA's regulations do not specify that the attainment determination is to be conducted using data from the years prior to the attainment date, without considering data from the ozone season that includes the attainment date. They believe such a determination would be inconsistent with the statutory directive that

the attainment determination be “based on the area’s design value (as of the attainment date).”

Response: As an initial matter, EPA set forth its interpretation on this issue in the preambles to the proposed and final Phase 1 Rule. See 68 FR 32802, at 32817 (June 2, 2003) (In “determining whether an area actually attains the NAAQS at the time of the attainment date, EPA would use the ambient air quality data for the three ozone seasons prior to the attainment date. As an example, if the effective date of the nonattainment designations is May 15, 2004, the maximum attainment date for an area classified marginal would be May 15, 2007. In this example, EPA would consider the 8-hour ozone data for the three previous ozone seasons— 2004, 2005 and 2006.”); 69 FR 23951, at 23989 (Apr. 30, 2004) (noting that the ozone seasons from 2007, 2008 and 2009 would be considered for an attainment date in May 2010). However, as noted by the commenter, the statute clearly specifies that a determination of attainment must be “based on the area’s design value (as of the attainment date). The attainment date for the DFW area is June 15, 2010 and the design value “as of the attainment date” must be determined using the last three full years of ozone data, i.e., 2007, 2008 and 2009. We see no argument that the design value “as of the attainment date” could be determined based on air quality data that would not represent a complete ozone season and thus be incomplete as of June 15, 2010.

Comment: We received many comment letters stating that the plan does not reflect recommendations made by the North Texas Clean Air Steering Committee.

Response: We agree that the plan submitted by the State does not reflect all of these recommendations. The resolutions were submitted to the State and addressed by the TCEQ in the SIP package adopted on May 23, 2007, which is in the docket for this rulemaking. The U. S. Supreme Court has consistently held that under the Act, initial and primary responsibility for deciding what emissions reductions will be required from which sources is left to the discretion

of the States. *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457 (2001); *Train v. NRDC*, 421 U.S. 60 (1975). The State has discretion under the Act to determine the emissions reductions measures to be included in its attainment demonstration and exercised this authority for this plan. The State's role is to determine which particular emissions reductions measures are appropriate for the nonattainment area in order to comply with the requirements of the Act. As a matter of law, EPA is required to approve a SIP revision if it meets the Act's requirements, regardless of the State's choices. It is not EPA's role to rule out the State's choice of components of its SIP submittal so long as the plan is adequate to meet the standards mandated by EPA. See *Train* at 79-80 and *Union Electric v. EPA*, 427 U.S. 246 (1976). The EPA's role in reviewing SIP submittals is to approve state choices, if they meet the criteria of the Act. EPA disapproves a SIP submittal only if it fails to meet the statutory requirements. *Seabrook v. Costle*, 659 F.2d 1349 (5th Cir. 1981). Federal inquiry into the reasonableness of state action is not allowed under the Act (*see, Union Electric Co. v. EPA*, 427 U.S. 246, 255-266 (1976); 42 U.S.C. 7410(a)(2)). As provided in the analyses accompanying this rulemaking, we have explained why we believe the submitted plan meets the requirements of the CAA.

Comment: Many commenters claimed that the SIP sanctions ozone pollution levels above the 1997 standard yet this standard has been determined not to be protective of human health by the EPA and is being replaced.

Response: The Act contemplates the possibility that scientific advances would require amending the ozone NAAQS. As such, Section 109(d)(1) of the Act *requires* EPA to review the ozone standard every five years based on the current science, and make any revisions that are appropriate in light of the current science. Today's actions are being taken in the context of the

ozone standard that was promulgated on July 18, 1997, based on the best available scientific evidence at the time.

The 2008 revised 8-hour ozone standard does not replace the requirements for ozone nonattainment areas to meet the 1997 8-hour ozone standard by their applicable attainment date. The measures implemented in this attainment demonstration SIP will assist the DFW area in progressing toward the 2008 revised 8-hour ozone standard, ensuring progress continues during the time between the designations for the 2008 standard and the submission date for the associated SIP revisions. These measures cannot be removed from the SIP. *South Coast Air Quality Management Dist. v. EPA*, 472 F.3d 882 (D.C. Cir. 2006).

Comment: A commenter stated that TCEQ approved a permit revision allowing TXI cement kilns in Ellis County to burn tires as fuel, questioned whether the change would result in a decrease in NOx emissions, and expressed concerns about other pollutants, which result from tire burning. TXI said there would be NOx reductions but they based this by comparing kilns that were not similar to the ones TXI would use. TCEQ allows TXI to self-report, but the checks on the reporting are poor, and TXI also knows when the inspectors are coming.

Response: Each cement plant in Ellis County must comply with both its permits' limits and the State's revised chapter 117 rules for cement kilns relied upon in the DFW attainment demonstration, whichever is stricter. In a related rulemaking in today's Federal Register, EPA is concurrently approving the revised chapter 117 rules for cement kilns. The revised cement kiln rules establish a NOx source cap for each of the three cement plants in Ellis County. We disagree that there will be no decreases in NOx emissions. The revised NOx rules for cement kilns should result in at least 9.7 tpd of reduction in NOx emissions for the DFW area regardless of the fuel used including tires. We note also that all of the cement plants are required to operate

continuous emissions monitors for NOx that must meet rigorous quality assurance and quality control criteria. Because these stack monitors must operate continuously, compliance does not rely solely on periodic inspections. As a consequence, EPA is confident that compliance with the NOx limits in these rules will be well monitored.

The commenter's concerns regarding increases of other pollutants besides NOx, TXI's reliance upon non-similar kilns to claim NOx reductions, self-reporting, and TCEQ's inspection program are not pertinent to today's action; the issue in this action is whether the State has shown that the DFW area will attain the 1997 standard by June 15, 2010.

Comment: The public is disadvantaged by "conditional approval" comment periods. Comments concerning the adequacy of Texas' plan depend upon how Texas fulfills the requisite conditions, but the public will not know this information until sometime in the future after the current comment period has passed. After Texas adopts and submits its final plans concerning DERCs and the other "conditions" to EPA, EPA should allow additional public comment regarding the adequacy of the DFW SIP attainment demonstration.

Response: Congress provided for conditional approval as a type of SIP processing. The Congress added section 110(k)(4) to the Act in the 1990 amendments to codify the EPA's authority to conditionally approve SIPs. Section 110(k)(4) provides that EPA may conditionally approve a plan based on a commitment from the State to adopt specific enforceable measures by a date certain, but not later than one year after the date of the final conditional approval action. In this case, if the State submits by March 1, 2009 (the date certain), a complete DERC SIP revision submittal (the specific enforceable measures), EPA must reevaluate the approvability of the DFW attainment demonstration SIP, as revised by this DERC SIP revision submittal. EPA will perform such an evaluation through notice-and-comment rulemaking and the public will

have another opportunity to comment upon the adequacy of the DFW plan as affected by the DERC changes.

Comment: A number of commenters are concerned that cities within the DFW nonattainment area continue to be given more time to attain the standard instead of requiring them to clean the air now. If the State had met its responsibilities to submit a timely and approvable 1-hour attainment demonstration SIP, then this SIP would be incrementally stronger and have been submitted and implemented sooner. There is a contention that Texas has not submitted a complete approvable attainment demonstration SIP for the DFW area for over thirty years. Moreover, monitoring began in the early 1970's and the DFW area has never attained the 84 parts per billion (ppb) standard and remains years from doing so.

Response: The lack of approvability of past SIP submittals for the DFW area is not relevant to the requirement for an area to submit a 1997 8-hour ozone attainment demonstration. The State submitted this SIP revision on May 30, 2007, fifteen days before the June 15, 2007 required submission date. The State was on schedule to submit this SIP revision even earlier, but received requests from several stakeholders for an expanded timeline that would allow for a more robust stakeholder discussion and development of additional technical support.¹

This 8-hour ozone attainment demonstration was submitted on time and deemed complete by operation of law (40 CFR 51, Appendix V). Moreover, the attainment date for the 1997 8-hour ozone standard for the DFW area is June 15, 2010. The State has not requested additional time for the area to attain this standard, nor has additional time been granted. EPA is finding today that the control measures relied upon in this plan, in combination with Federal Measures, and building on measures already approved in the SIP will ensure that the DFW area

¹ See the Settlement Agreement and letters dated March 22, 2006, March 24, 2006 and April 6, 2006 in the docket for this rulemaking.

attains the 1997 8-hour ozone standard by the applicable attainment date of June 15, 2010.

While past efforts to comply with CAA requirements have not been without flaws, we note that there have been extensive efforts and significant progress made over the years in the fast growing DFW area. These past efforts have built the foundation for the plan being approved today. They include the 15% Rate of Progress (ROP) plan, the post-1996 ROP plan, the MVEBs, and the extensive control measures adopted by the State and approved by EPA into the Texas SIP for the DFW area to meet the 1-hour ozone standard. The control measures in these approved plans included among other things: reformulated gasoline, enhanced I/M, and controls on power plants locally and in the Central and East Texas Region.

Moreover, we note that the area is continuing to look for further ways to address ozone levels and may submit additional revisions to the SIP in the future. Three of the largest cities (Arlington, Dallas and Fort Worth) have passed ordinances addressing the purchase of green cement, which may yield an additional 1 tpd of NO_x reductions; and local city and county officials have increased their enforcement of Inspection and Maintenance rules by performing site inspections, which will yield additional reductions through 2009.

The measures discussed above have resulted in significant improvements in air quality. The DFW area now is meeting the 1-hour standard and has made significant progress toward meeting the 1997 8-hour ozone standard. As a moderate nonattainment area, the attainment date for the DFW area is June 15, 2010 and we believe the area will meet the attainment date.

Comment: The plan should require more mass transit and industry to install the latest in air pollution reduction equipment. Airplane engines and related equipment should be less polluting.

Response: As explained in an earlier response, the CAA places responsibility on the

State to determine the mix of controls that will bring an area into attainment with a particular standard and EPA is delegated to reviewing whether the State's plan will meet the statutory attainment requirement. Therefore, EPA does not have the authority to require the State of Texas to submit a plan for the DFW area that requires more mass transit or imposes the latest in pollution control equipment on industry.

We note, however, the expansion of mass transit is ongoing in the DFW area and can be viewed at www.DART.org. Appendix H of the DFW SIP submittal identifies emission reduction measures for airplanes and related equipment, which are part of the Voluntary Mobile Source Emission Reduction Program (VMEP) we are approving today. These include: additional electrification of ground support equipment; gate electrification to eliminate use of aircraft auxiliary power units; ground tugs for pushback to minimize use of reverse thrust from main aircraft engines; de-peaking of airline flight schedules; and implementation of airport surface detection equipment to improve efficiency during taxi. Furthermore, the local community has implemented clean air initiatives that include: outreach for the TERP and AirCheckTexas programs; reducing environmental impacts by purchasing hybrids and alternative fueled vehicles when possible; purchasing 40% of their electric power from renewable resources; green building policies; development of sustainability policies; developing purchasing policies for cleaner cement; and passing an ordinance prohibiting vehicles over 14,000 pounds from idling for more than 5 minutes.

In addition to the measures in Appendix H, TCEQ submitted a Supplement with more accurate and updated data for Love Field and the DFW International Airport, including data on activities and fleet mix. There were more new aircraft engines and the related equipment was less polluting than previously recognized. This information is provided in the docket for this

rulemaking.

C. Comments on the Texas Emissions Reduction Plan (TERP)

Comment: Commenters express significant concerns about whether the projected emissions reductions from TERP will occur, as predicted. They believe that the projections are overly optimistic. They provide the following reasons for their concern about the projections being too optimistic: 1. Actual TERP reductions have not met previous projected reductions, and the methodology for calculating the projected TERP reductions may not take into account that in the future, there will be fewer emissions reductions per dollar spent (cost-effectiveness assumption). 2. Although it is clear that TERP emissions reductions occur, there does not seem to be a satisfactory way to confirm the projected reductions will actually occur or not. 3. EPA relies upon the State's assumption that 70% of TERP funds will be used in the DFW area, but since there is no mechanism for ensuring the specified percentage of funding will be met, the projections are not enforceable; the projections should not be relied upon in the attainment demonstration; the 70% assumption should be reduced; and the SIP should include a contingency component to address a potential shortfall.

Response: We agree that for the Increment of Progress SIP revision, the amount of actual TERP reductions was less than the projections. Because of this experience, we worked with the State to revise the methodology for estimating emission reductions in this attainment demonstration SIP. The revised methodology uses assumptions that are more conservative. Specifically, the average project life was increased by 40% and the cost effectiveness was reduced by slightly more than 51%. The formula now relies upon the following assumptions: \$6000/ton, 250 days/yr operation and a 7-year project life. Using these revised assumptions, the

TERP emission reduction projections relied upon in the demonstration modeling and the WOE are greatly reduced. Increasing the project life has the effect of reducing the emission reductions assumed in any given year. The cut in the revised cost-effectiveness assumption is intended to address, among other things, the commenters' concerns about there being fewer reductions per dollar spent each succeeding year.

For comparison, on January 26, 2007, the cost effectiveness of TERP projects completed in DFW averaged \$3730.24/ton; by September 23, 2007, DFW projects averaged \$3743.59/ton; and by April 2, 2008, DFW projects averaged \$3959/ton. California's experience with the Carl Moyer program² has achieved emissions reductions at an average cost of \$3900/ton through October 2006. We believe the revised cost effectiveness of \$6000/ton provides room for the increase in cost/ton that we are seeing in the DFW area.

In its May 2007 SIP revision, TCEQ indicated as a weight of evidence (WOE) measure that additional TERP reductions were possible if additional monies were appropriated by the legislature for the 2008/2009 legislature. House Bill 1 signed by the Governor on July 15, 2007, appropriated to TCEQ, TERP funds of \$297,144,243 for fiscal years (FYs) 2008/2009. In the April 23, 2008 submittal, relying upon these additional appropriated monies, TCEQ projected that the TERP could potentially achieve an additional 14.2 tpd of NO_x emissions reductions. Since these emissions reductions were not available early enough to include as control measures in the modeling, their impact on the DFW area's air quality was instead predicted by EPA, using sensitivity modeling runs, to estimate the ppb change on the monitors in the modeling-based weight of evidence (WOE) analysis.

To achieve the projected additional 14.2 tpd of NO_x emissions reductions from TERP,

² The Carl Moyer Program 2006 Status Report is in the docket for this rulemaking and can be viewed at http://www.arb.ca.gov/msprog/moyer/status/2006status_report.pdf.

using the revised TERP methodology, the Texas legislature needed to appropriate to the TCEQ, sufficient FY2008 and FY2009³ TERP funds for the TCEQ to allocate a total of \$149,100,000⁴ to the DFW area for TERP Emission Reduction Incentive Grant (ERIG) projects; this amount does not include the funds required to achieve the IOP shortfall.⁵ TCEQ received a sufficient amount of TERP monies to have available \$188,475,000 to achieve the IOP SIP shortfall (\$39,375,000) and achieve an additional 14.2 tpd (\$149,100,000) in 2008 and 2009.

In the April 2008 submittal, the TCEQ posited that it could achieve the additional 14.2 tpd of TERP NO_x reductions by spending in the DFW area 50% of the FY2008 TERP funds and 70% of the FY2009 TERP funds. Whether funds are spent in exactly these percentages each year however, is not the issue; the essential point is that TCEQ enters into TERP grant contracts worth at least \$149,100,000 in the DFW area for projects to achieve 14.2 tpd in calendar years 2008 and early 2009.

TCEQ roughly split in half for each fiscal year, the \$297,144,243 appropriated TERP funds - \$148,572,121.50. Of this \$148,572,121.50 “split,” TCEQ used approximately \$40 million for other TERP programs, including rebate grants and FY2007 unfunded TERP applications, including the IOP SIP shortfall. EPA notes that the IOP shortfall has now been met. Considering the factors meant that TCEQ had approximately \$106,000,000 FY2008 TERP monies for the FY2008 to achieve additional reductions beyond those considered in the May 2007 SIP submission through ERIG projects in TERP-eligible counties. Applications submitted to TCEQ during the FY2008 round of project applications totaled approximately \$94.5 million for the DFW area. Of these applications however, it appears from the draft September Report

3 The TCEQ fiscal year runs from September 1 through August 31.

4 Using the revised SIP credit methodology, each ton costs $(6000 \times 250 \times 7) = \$10,500,000$. Therefore, $14.2 \times 10,500,000 = \$149,100,000$.

5 Using the revised SIP credit methodology: $3.75 \text{ tpd} \times \$10,500,000 = \$39,375,000$ to correct the IOP SIP shortfall.

that \$51,532,511.79 have been selected for funding.⁶

As a result, to achieve the 14.2 tpd projection, TCEQ needs to enter into FY2009 TERP grant contracts worth \$97,567,488.21 ($\$149,100,000 - 51,532,511.79 = \$97,567,488.21$). In summary, after accounting for the tpd of TERP NOx emissions reductions obtained by the FY2008 grant contracts, to obtain the remaining tpd of TERP NOx emissions reductions to achieve a total of 14.2 tpd as projected as part of the WOE, the TCEQ would need to enter into TERP grant contracts with DFW-area applicants worth \$149,100,000 for projects to be completed as early as possible in calendar 2009. Due to a number of factors, including Hurricane Ike, the TCEQ will begin its first round of requests for funding from FY2009 TERP grant monies in December 2008. For more information concerning the timing of FY2009 TERP projects due to Hurricane Ike, please see the Supplemental TSD dated December 2008.

TERP has safeguards to ensure that when funds are provided to grantees, they must achieve the associated reductions. Grantees are required to track usage and report to the TCEQ every six months; they must meet the reporting requirements delineated in their specific grant contract. TERP is enforceable against the grant recipient. Over the activity life of each TERP grant-funded activity, the grant recipient commits the generated emissions reductions to the SIP. The recipient is responsible for achieving the annual and total NOx emissions reductions within the eligible areas as defined in the contract. Recipients will be required to return all or a pro rata share of the grant funds to the TCEQ if the emissions reductions are not achieved.

EPA continues to carefully review the biennial reports that TCEQ is required to submit to the Legislature pursuant to Texas Health and Safety Code, 386.057 and 386.116(d). The draft

⁶ Per the TERP Biennial Report to the Texas Legislature December 2008 draft, dated September 22, 2008. This draft was prepared using data from mid-summer. The final report, due in December 2008, will incorporate all of the contracts awarded or pending to date. See the docket for this rulemaking.

September TERP Biennial Report to the Texas Legislature indicates that 488 projects have been selected for funding in the DFW area, totaling \$51,532,511.79 to reduce an estimated 3.72 tpd in NOx emissions beyond what was included in the May 2007 modeling. Based upon the draft September Report, the average cost/ton for these projects increased to \$6710.13, versus the revised methodology of \$6000/ton. At this rate, to achieve the 14.2 tpd in NOx emissions reductions, the TCEQ must be able to allocate at least \$123 million⁷ to the DFW area for TERP projects early in calendar 2009. As this report is in draft, these numbers are subject to change but it now seems likely that approximately 70% of these TERP emission reductions will occur before the core ozone season of 2009. We have evaluated the impact of this change on the attainment demonstration modeling and WOE; this evaluation is in Subsection D, below.

In summary, EPA believes that the TERP program is achieving significant reductions in NOx. Consistent with its experience in implementing the program, the State has adjusted its assumptions used in projecting emission reductions to be more conservative. EPA believes these revised assumptions begin to address many of the commenters concerns. Although delays in opening the request for applications mean the reductions based on FY2009 funds will be delayed, many reductions can still occur before the peak of the ozone season. Achieving the 14.2 tpd of reductions from TERP will require substantial continued efforts. See also Subsection D below, in particular the last Response, Comment MC-15.

D. Comments on Photochemical Modeling, Weight of Evidence Analyses, and Assessment of Demonstration of Attainment

EPA received a number of comments about the photochemical modeling, the Weight of Evidence Analyses, and our proposed determination that the area would attain the standard by its

⁷ $(6710.13 \times 250 \times 7) = \$11,742,727.50 \times 10.4786 = \$123,047,344.38$

attainment date of June 15, 2010. EPA has reviewed all the comments on these topics and provided responses below.

The discussion below summarizes our evaluation of the modeling and evidence, the comments we received, and other factors such as the State's progress in implementing control strategies, and recent air quality trends. EPA believes that as the attainment date becomes closer, measured air quality and planned additional emission reductions become more important as a predictive tool (compared to modeling) and the monitoring data should be given additional weight, more so than in situations where the attainment date is still years away. In 2008, the preliminary data shows 18 of the 20 monitors have measured attainment levels with fourth high 8-hour values of 84 ppb or less. The remaining two monitors were only slightly higher than an attainment level measuring fourth high values of 85 ppb. EPA believes additional significant reductions in emissions will occur before the 2009 ozone season such that the area can attain the standard based on 2007-2009 ambient data or at least qualify for a 1-year extension of the attainment date by having each monitor's 4th high ozone concentration in 2009 below 85 ppb.

We evaluated many factors in our WOE evaluation. These items included reductions not included in the modeling based projections (energy efficiencies), unquantifiable measures (AirCheckTexas, Dallas Sustainable Skyline Initiative, etc.), meteorological analyses of severity of ozone seasons (both the base period and recent years including 2007), most recent monitoring in 2007 (a 4th high of 89 ppb at two monitors and the other 18 monitors had 4th high values of 87 ppb or less), the court's vacatur of CAIR, progress in implementing the TERP program, and progress in implementing the early compliance incentive on natural gas compressor engines outside the DFW area. EPA has also considered preliminary 2008 ozone monitoring data (4th high values of 85 ppb at two monitors and at the other 18 monitors the value was 84 ppb or less)

and whether that data supports a trend toward attainment for the area. We considered that over half of the NO_x estimated emissions reductions between 2007 and 2009 that are estimated to yield a 3-4 ppb drop in ozone levels in the DFW area, are slated to occur between the 2008 ozone season and the 2009 ozone season. We also expect further ozone reductions in 2009 and beyond.

After consideration of all of these analyses, EPA has determined that the State has demonstrated that the DFW nonattainment area will attain the 1997 8-hour ozone standard by its attainment date.

Comment (MC-1): A commenter states that the WOE analysis underestimates the impact of emission increases from facilities outside the DFW nonattainment area, upon the DFW area. This underestimate occurs because the TCEQ issues PSD permits to facilities outside the DFW area that will affect the ozone concentration level in the DFW area and says they should address these ozone impacts in the DFW attainment demonstration SIP. The commenter does not believe that this DFW attainment demonstration accounts for the impacts from these sources that have been and will be permitted outside of the DFW area. There also appears to be no correlation or tracking of these permitted emission increases in relation to the projected point source emissions inventories in this DFW attainment demonstration.

Response (MC-1): The Texas SIP at Section 166.160 (a) (which incorporates 40 CFR 52.21(k) by reference) requires a new source or modification subject to PSD to demonstrate that emissions from the facility will not cause or contribute to a violation of any NAAQS. The Texas PSD SIP permitting program also provides for an opportunity for notice and comment, as well as state court judicial review, of each permitting action.

EPA disagrees with the commenter that this SIP revision does not account for the impact of potential emissions increases. In this final action on the DFW attainment demonstration, we

reviewed the analysis to insure that sources impacting the DFW nonattainment area were included in the baseline and future case modeling demonstrations. EPA's modeling guidance ("Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM2.5, and Regional Haze", EPA -454/B-07-002, April 2007; and earlier modeling guidance) and emission inventory guidance ("Emissions Inventory Guidance for Implementation of Ozone and Particulate Matter National Ambient Air Quality Standards (NAAQS) and Regional Haze Regulations", EPA-454/R-05-001, August, 2005, updated November 2005) indicate that a combination of specific projections and general growth estimates should be utilized to attempt to obtain a best estimate for the future year inventory. Future case emissions must be projected to account for growth and control throughout the modeling domain, which includes states outside of Texas and the attainment areas of Texas (including the new proposed sources raised by the commenter). EPA's guidance has been that new permitted sources, including likely to be permitted sources based on applications that have been received when the future year EI is being generated, should be included in the future year modeling if they are expected to be emitting in the future attainment year. As a practical matter, the focus has usually been to include expected new very large sources (such as electric generating units (EGUs)) and use economic based growth factors to account for growth in emissions from other industrial source categories. Overall, EPA's guidance is to provide the best estimate of the future year emission inventory given the limitations with estimating emissions several years in the future. Texas' emission projections to the future years are very detailed and the methods utilized are discussed in the MOAAD TSD and in TCEQ's DFW SIP submittal, including Appendix B. In nonattainment areas, major new sources are required to obtain offsets larger than the proposed source so there is a net decrease in emissions, so no growth is estimated for

these sources in nonattainment areas. Therefore, within Texas the only areas that point source growth is estimated is in the areas that are in attainment and our discussion will briefly explain the methodology for future year estimates of major point sources in attainment areas of Texas.

For existing EGUs in Texas, the State used 2005 continuous emission monitoring data and assumed that there would be no emissions changes. Texas projected increases in emissions because of new EGUs that were expected to be emitting in 2009 (these were included in Table 2-8 of Appendix B of TCEQ's submittal). For all other industrial point source emissions (non-EGUs) in Texas' attainment areas, TCEQ started with the 1999 reported emission inventory and projected growth in point source emissions using point source growth projections derived from the Emissions Growth Analysis System version 4.0 (EGAS 4.0), an EPA-approved methodology. It is worth noting that the EGAS system for projecting emissions tends to overstate future emissions since the system relies principally on economic growth for the projections, and does not include reductions from regulatory or permit controls.

In conclusion, we have reviewed the methodologies that TCEQ utilized to grow EGUs and non-EGUs outside of the DFW area and conclude that the 2009 level emissions of these sources have been appropriately estimated using acceptable methods and contrary to the commenter's concerns the attainment demonstration appropriately accounts for the potential for new source growth by 2009.

Comment (MC-2): Commenters state that ozone exceedances continue to occur in the DFW area and show there still is a serious problem. Specifically, 14 exceedances have been measured at eight of the monitors through August 12, 2008 and eight of which are 90 to 99 ppb. The commenter concluded that this 2008 monitoring data does not seem to support the WOE.

Response (MC-2): EPA has reviewed the ozone monitoring data through November 1,

2008 in response to this comment. While a number of exceedances of the 1997 8-hour ozone standard occurred during the 2008 ozone season by August 12, 2008, it is very important to note that the standard is a statistically based standard. The statistical nature of the standard allows each monitor to have up to 3 days with exceedance levels at each monitor (with potentially multiple 8-hour exceedances for each of the three days) and all the monitors in the area could still have a 4th high value less than 85 ppb (attainment level). The standard is an average of the daily 4th high value at a monitor for each year of a consecutive 3-year period. Therefore, it is even possible to have a 4th high value for one or even two years at a specific monitor be above the standard, but the 3-year average value to be below 85 ppb and thus, in attainment.⁸ Furthermore, each monitor in the area could have up to 3 exceedances at each monitor on differing days. Given 20 monitors in the DFW area, a total of 60 exceedances could theoretically occur in the DFW area with all 4th high values at each monitor still less than 85 ppb. This is a theoretical worse-case situation but this demonstrates that having several exceedances does not automatically yield a nonattainment determination.

Since the standard is statistically based, the relevant metric to examine for determining compliance with the NAAQS is the annual 4th high values at each monitor. We therefore evaluated the recent 4th high values for the DFW area 8-Hour Ozone Season (March 1 – October 31 for the 85 ppb standard). The 4th high monitoring data from 2008 indicates that the area is near attainment levels (2008 monitoring data is preliminary and awaiting QA/QC9). The 2008 preliminary data shows the DFW area had 4th high values of 85 ppb at two monitors and at the other 18 monitors the value was 84 ppb or less. The 2008 preliminary data indicates the 2006-

⁸ For example, if the 4th high value for each of three years was as follows: 2006 – 87 ppb; 2007 – 85 ppb; 2008 – 81 ppb, the average over the three year period would be 84 ppb, which is below the level of the standard.

⁹ 2008 preliminary monitoring data is from EPA's AQS and AirNow databases and has to undergo final Quality Assurance and Quality Control.

2008 DV is 91 ppb (down from 95 ppb using 2005-2007 data). For the monitor that has the highest average 2007 and 2008 4th high values and is likely to be the controlling monitor (or one of the highest monitors) for determining if the area reaches attainment based on 2007-2009 data, the monitor's DV for the 2007-2009 period would have to be less than 85 ppb. For this to occur the monitor (Denton monitor) would have to have a 4th high value of 82 ppb or less to reach attainment in 2009. It is important to note that this monitor had a preliminary 4th high value in 2008 of only 84 ppb.

In comparison with ozone monitoring levels in 2007, the preliminary 2008 monitoring data is lower than the 2007 data. Contrary to the commenters concerns, EPA believes that the 2008 preliminary data is consistent with achieving attainment, especially considering that much of the DFW SIP reductions are still to occur and another year of fleet turnover will happen. EPA also believes that even if the area does not attain the standard based on 2007-2009 data, it is very likely to qualify for a one year extension under sections 172(a)(2)(C) and 181(a)(5) of the Act (*see* 40 CFR 51.907) by having fourth high at 84 ppb or below at every monitor.

Comment (MC-3): Commenters believe that we should impose a 2009 mid-course review (MCR) obligation upon the State, triggered by exceedances at the monitors or a violation of the standard in 2009.

Response (MC-3): There is no MCR requirement at this time for the 8-hour ozone SIP. In our Phase 2 Implementation Rule, we provided that we would assess the need for MCR for areas with an attainment date beyond 6 years after the effective date of the area's designation (Final Rule To Implement the 8-Hour Ozone National Ambient Air Quality Standard, Phase 2 (70 FR 71612, 71629). The attainment date for DFW is June 15, 2010, which is not more than 6 years beyond the effective date of the area's designation. A mid-course review is for the purpose

of assessing whether an area is on-track for attainment and would typically be performed several years before the attainment year. This is because a MCR performed several years before the attainment year would give the area sufficient time to make corrections to the plan if it was not performing as anticipated. A review as suggested by the commenter would not be “mid-course” because it would be performed in the middle of the attainment year ozone season. At that point in time, there would be no steps that the DFW area could take to move the area back on track to achieve attainment by the required date.

Comment (MC-4): Commenters stated that in the DFW area, there are two monitors critical to the attainment demonstration, one in Frisco and one in Denton. The commenters, relying upon a February 22, 2006 Memorandum from ENVIRON, state that there is no measurable impact on these two critical monitors from the TCEQ’s chosen controls for the Ellis County cement plants. The commenters contend that TCEQ has not performed any analysis showing that the chosen level of controls on the Ellis County cement plants would assist the DFW area into coming into compliance with the ozone standard.

Response (MC-4): As noted in a previous response, the Act gives the State the primary authority to determine the mix of control measures necessary to demonstrate attainment. One of the measures that TCEQ selected in support of its attainment demonstration is controls at cement plants in Ellis County. EPA evaluated the plan, as a whole, and agrees that the State has demonstrated that the area will attain the standard by its attainment date. Thus, EPA does not have authority to second-guess the mix of controls selected by the State and, in this case, its decision to further control the cement kilns in Ellis County.

Although we cannot second-guess the controls selected by the State, we note that we agree with TCEQ that cement kiln NO_x reductions are an important element of the reductions

necessary to bring the entire DFW area into attainment and the reductions are expected to reduce high ozone levels and the frequency of ozone exceedances in the DFW area. The record for this action includes the information that was evaluated by the State and EPA and that supports the conclusion that additional NO_x controls on cement kilns are a critical component to reducing ozone exceedance levels in the DFW area so that the area can timely attain the 1997 8-hour ozone standard. It is clear from evaluating the SIP, its reports and appendices that TCEQ has performed numerous analyses concerning the impact of the cement kilns NO_x and VOC emissions on the ozone concentrations levels of the DFW area. Moreover, contrary to the commenters' assertion, the chosen strategy has an impact on the Frisco and Denton monitors, as well as a significant benefit to the western portion of the nonattainment area, especially in Tarrant County. For further details, see the TCEQ's Response to Comments document, the MOAAD TSD, and the Supplemental TSD.

For the other comments specific to the cement kiln NO_x rule itself, not the attainment demonstration SIP, we provide the comments and our responses in our final rule for the Control of Emissions of Nitrogen Oxides from Cement Kilns, concurrently published in today's Federal Register.

Comment (MC-5): The commenter asserted that EPA should not accept TCEQ's revised Relative Response Factor (RRF) calculation.¹⁰ The commenter indicated that contrary to the proposal, a 1 ppb difference between EPA's RRF guidance and TCEQ's revised RRF is significant. The commenter referred to 73 FR 40211, stating that TCEQ RRF calculation did not make significant differences in the future design values (FDVs) with truncation. The commenter

¹⁰ The RRF is used to calculate the change in model projected values between the basecase and future case modeling projections and determine if modeling is projecting attainment in the future. For further explanations of both the EPA guidance method for calculating RRFs and TCEQ's RRF calculation method see Section 4.11 of the MOAAD TSD.

wrote that TCEQ's methodology is merely a paper exercise to obtain additional emission credits, and EPA should not approve of such tactics.

Response (MC-5): We recognize the TCEQ's method of projecting the future design value differs from the method provided for in EPA's guidance. EPA's guidance for projecting the future design value is not a legally binding substantive rule. Therefore, other methods of design value projections may be evaluated on a case-by-case basis and used to determine whether an area will meet the standard. Whatever method is used for a specific demonstration – either that from EPA's Guidance or another method – is subject to comment during the State and EPA public participation processes and all substantive concerns about the method would be addressed in responding to any comments.

TCEQ shared their RRF method with EPA during their SIP development process. EPA reviewed the alternate RRF method at the time and indicated to TCEQ that we would utilize both EPA's method and TCEQ's method and weigh the results in our review of the modeling projections. We have continued to follow this approach in our review of this SIP. For details on how both the TCEQ and EPA RRF methods are calculated and results from the two methods, please see the MOAAD TSD starting in Chapter 4.

In this specific case, TCEQ's method yields projected values that when compared to values with EPA's method are more conservative at some monitors and less conservative at other monitors. EPA does not consider the TCEQ RRF method to be superior to EPA's method, just a different way to perform the calculation and yield another set of projected results to consider in our review. We do not believe that either method is biased towards a particular result. As described below, and documented in our MOAAD TSD for this action, we have reviewed projections using both RRF techniques. Both the TCEQ projection and the EPA projection are

consistent with the conclusion that the area will meet the standard in 2009.

The results for both RRF (EPA and TCEQ) methods are contained in tables of the MOAAD TSD that have FDV projections, including Tables in Chapter 6 (the Summary Chapter). EPA reviewed the FDVs for all modeling based projections using both RRF techniques and for most monitors, the TCEQ RRF based FDV calculations make minor differences of only one or two tenths of a ppb (compared to EPA's RRF method) and generally do not change the final modeling projected value. Specifically, for the nine monitors that are assessed, the difference between the two RRF techniques ranges from minus 0.22 ppb to +0.19 ppb for 8 of the 9 monitors and is +0.59 ppb for the other monitor. See Table 5 of the proposal notice. As the final step of calculating modeling projections, EPA guidance recommends truncating the tenths digit and only reporting integer ppb values to match with the monitored attainment demonstration procedures that truncate to integer ppb levels. Due to this truncation procedure, modeling projection changes of a few tenths do not generally impact the final FDV value. There were a few cases where the different RRF methods yielded a 1 ppb difference in the final FDV value due to this truncation process (for the Midlothian monitor's data, the different RRF methods yield modeling values of 82.83 ppb and 83.05 ppb and truncation yields final FDVs of 82 ppb and 83 ppb).

We continue to believe that the difference in the results of these two techniques is small overall. As discussed in another response below, we considered the results of both RRF methods (including the few times that the truncated FDV differed by 1 ppb) and determined that both the TCEQ projection and the EPA projection are consistent with the conclusion that the area will meet the standard in 2009.

Comment (MC-6): The commenter indicated it is unclear whether the Photochemical

Dispersion Modeling Reanalysis 2009 (PDMR 2009) evaluation uses TCEQ's revised RRF or EPA's guidance. The commenter indicated that it appears as though it uses only TCEQ's RRF and the public should be afforded an opportunity to know the PDMR 2009 FDV under EPA's guidance. The commenter asserted that considering that even with the more lenient TCEQ revised RRF, the modeling still projects a worse air quality picture, and thus the EPA guidance projection will most likely be even worse. The commenter indicated that without this information, the public is unable to meaningfully review and comment not only on the overall demonstration, but also on whether using the TCEQ revised RRF is even proper.

Response (MC-6): There were five tables that included modeling projections in the proposal notice. Tables 2, 3, and 5 had projections for the PDMR 2009 modeling scenario and were marked as TCEQ RRF in the FDV columns. The proposal notice included calculations of modeling projections using both the TCEQ's RRF method and the RRF method from EPA's guidance for the modeling run Combo 10 in Table 1. In referring to values in Table 1 of the proposal notice, EPA stated on page 40211 "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." From that point forward in the proposal notice, EPA did not include the results from EPA's RRF method in the Federal Register notice. Tables 2, 3, and 5, including the analyses of PDMR 2009 only include the TCEQ RRFs as the commenter indicates. This was done to try to minimize confusion in the notice. EPA did note in the proposed notice that the results from the EPA RRF method are contained in the MOAAD TSD. The results for both RRF (EPA and TCEQ) methods were contained in tables of the MOAAD TSD that had Future Design Value

projections, including Tables in Chapter 6 (the Summary Chapter). EPA reviewed the FDVs for all modeling based projections using both RRF techniques. Examination of the modeling results, which include some WOE adjustments contained in Table 6-3 of the MOAAD TSD, reveals that the TCEQ RRF based FDV calculation makes only minor differences of only one or two tenths of a ppb (compared to EPA's RRF method) for most monitors and did not change the final modeling projected value except for one monitor.

Comment (MC-7): A commenter asserted that full credit for the NO_x reductions from gas compressors in 33 East Texas counties seems overly optimistic. The commenter indicated that their understanding is that owners or operators of compressor engines requested a small portion of the \$4 million in incentives. The commenter remains skeptical that the full reductions assumed in Combo 10 will be achieved by 2009. The commenter asserted that the attainment modeling thus overstates the ozone reductions from the control strategy and indicated that EPA should consider this effect as part of the Weight of Evidence analysis, and should give more weight to the PDMR 2009.

Several commenters indicated that the 2.4 tpd of NO_x reductions from point sources in the DFW area that have 2010 compliance dates are not likely to be in place by the beginning of the 2009 ozone season. These commenters also indicated that EPA assumes too much by relying on the predictions that early compliance will occur for certain control measures with 2010 implementation dates. They claim that because of this reliance, the attainment modeling overstates the ozone reductions from the control strategy. The commenters indicated that EPA should consider this effect as part of the WOE analysis, and should give more weight to the PDMR 2009. Furthermore, a commenter wrote that if any control measure emission reduction will not be enforceable until after the 2009 compliance date, then those emission reductions

cannot be used to justify EPA's approval.

Response (MC-7): Combo 10 modeling run was the official attainment demonstration modeling run submitted by TCEQ to EPA in the SIP revision submittal. Because of our concerns stemming from the inclusion of reductions from measures with 2010 compliance dates, it was not the only modeling run considered by EPA in our evaluation of whether the DFW area would attain the standard by the deadline. There was another modeling run available in the TCEQ's public record on its proposed action for EPA to review; in the proposal and TSDs, we label this additional modeling scenario the PDMR 2009. We evaluated this PDMR 2009 modeling run as a worst-case projection of the 2009 modeling picture because it did not project any reductions from the rules with 2010 compliance dates. For example, it did not include the 2.4 tpd of NO_x reductions projected from the major and minor Point Source rules in the DFW area and any projected reductions from the East Texas Compressor Engines rules that have 2010 compliance dates. Thus, PDMR 2009 provides an upper boundary of projected ozone FDVs in the attainment year.

The Texas legislature made available to compressor engine owner and operators \$4 million to assist in early compliance. As the commenter points out, however, the full \$4 million was not requested by owners and operators of compressor engines. Since some requests were made, some early compliance should occur, but the commenter is correct that the level of reductions in East Texas by the 2009 ozone season is probably closer to the PDMR 2009 emission reduction level than the Combo 10 emission reduction level. As a result of this information, EPA is putting more weight on the PDMR 2009 results than on Combo 10.

We have evaluated the modeling outputs based on an approach that looks at the PDMR 2009 outputs, which predict ozone levels that are slightly worse than what is likely to occur, as

well as the Combo 10 outputs, which predict ozone levels that are more optimistic. This evaluation of PDMR 2009 sets the upper bound of model predictions for the FDV in 2009 and the Combo 10 run sets the lower bound. In making our determination that the State had demonstrated that the DFW area would attain the 1997 ozone NAAQS by its attainment date, we consider the TCEQ's official attainment demonstration modeling run (Combo 10), the results from the PDMR 2009 modeling, and information that some early compliance would occur by the 2009 ozone season as well as other weight of evidence analyses. The model projections in Table 6.3 of the MOAAD TSD give the non-truncated values for the final modeling with some WOE adjustments for both the modeling runs and both RRF techniques. The difference between the PDMR 2009 and the Combo 10 run for each monitor is 0.30 ppb or less when using either the TCEQ or EPA RRF technique. EPA's modeling guidance recommends the truncation of the decimal places and reporting of only integer values for the final modeling based projection values. When the truncation is done to the MOAAD TSD Table 6.3 values (Modeling-based assessment with some WOE elements included), the results are identical for both the PDMR 2009 and the Combo 10 modeling runs. Using the EPA RRF procedure, both runs result with 7 monitors attaining, one monitor at 87 ppb, and one monitor at 88 ppb. Using the TCEQ RRF procedure, both runs result with 7 monitors attaining, one monitor at 87 ppb, and one monitor at 88 ppb.

We have considered both the PDMR 2009 and Combo 10 modeling results and put less weight on the Combo 10 projections because of concerns over the inclusion of measures with 2010 compliance dates. As discussed above, however, when EPA's procedures for projecting the future design value are followed, there is little difference in the results particularly if one considers that a small amount of early compliance will occur. Therefore, as further discussed in

response to other comments, the combination of the Modeling projections and other WOE elements were considered and support the conclusion that the area will attain by the area's attainment date.

Comment (MC-8): The commenter indicated that TCEQ intends to reduce the amount of DERC values included in the modeling because using the entire balance of the DERC bank is “overly conservative based on past usage of DERCs.” The commenter asserted that DFW’s past air quality violations occurred under scenarios of less DERC usage. The commenter concluded that this belies a Weight of Evidence (WOE) “trend” of improving air quality because in the future projection nothing is really changing from the past when violations occurred.

Response (MC-8): DERCs are banked emission credits generated by reducing emissions beyond required levels that sources can use to exceed certain emission limits on a temporary basis. EPA guidance discusses why emission credits that are being carried in an emissions bank ought to be included in modeled projections. It can be important because these banked emissions come back in to the air if the banked credits are used. As a result, if these banked emissions are not accounted for in the future projections, the modeling would under-predict future ozone levels if some or all of the banked credits are used. EPA guidance advises a conservative approach in which all banked emissions are included in the modeled future projections. This conservative approach assumes that the entire bank would be depleted during the attainment year. The TCEQ Bank held 20.4 tpd of NOx DERCs when TCEQ reviewed the level of credits in the bank and included the banked DERCs in their future year modeling. After finalizing the future year modeling, TCEQ reevaluated the inclusion of all of the banked DERCs in the future projections. TCEQ believed that the inclusion of the entire balance of the DERC bank was overly conservative based on past usage of DERCs. They wished to include 3.2 tpd, rather than 20.4

tpd, of banked DERCs in the future projections. As discussed previously, Texas committed to adopt a restriction on DERC usage to ensure that no more than 3.2 tpd of banked DERCs will be used in 2009 and as a result preventing 17.2 tpd of potential emissions growth. This approval is conditioned on TCEQ's adoption and submittal of a complete SIP revision. Consequently, in order for EPA to fully approve the SIP, the State will need to have an enforceable rule in place that would not allow 17.2 tpd of the 20.4 tpd banked DERCs currently modeled in the state's 2009 Combo 10 and PDMR 2009 modeling, to be used beginning March 1, 2009.

The modeling submitted May 30, 2007 did include 20.4 tpd of banked DERCs in the 2009 future projections. Relying upon the State's commitment to revise the DERC rule to limit the use of banked credits to 3.2 tpd in 2009, it is appropriate to reduce the 2009 future modeling projections to 3.2 tpd in 2009. (For the calendar years after 2009, there will be an enforceable mechanism to equate to the limit of 3.2 tpd.) EPA therefore adjusted the modeling projections in Table 3 of the proposal (also included in the MOAAD TSD) to assess the impacts of the revised future projections. This was done to provide a modeling projection that reflected the inclusion of banked DERCs of 3.2 tpd in 2009. This approach is consistent with what would have been projected if TCEQ had redone the SIP modeling with 3.2 tpd for the banked DERCs instead of the 20.4 tpd that was included in the Combo 10 and PDMR 2009 modeling. EPA then used the revised 2009 modeling projections in conjunction with other modeling based analysis and WOE considerations in our review of the entire attainment demonstration.

The commenter is correct in the assessment that DERCs have not been used in the past and past air quality exceedances did not include any impact from DERC usage (since DERCs have not been used in the DFW area). Now, with the commitment to adopt a restriction on DERC use, it is not appropriate to continue with the assumption that all of the DERCs in the

bank will be used in the attainment year in the future year modeling.

Because DERC use did not impact past exceedances (again because DERCs have not been used in the past), EPA did not consider the banked DERCs 2009 usage restriction, as part of our emissions and ambient trends analysis that we performed in our WOE evaluation; rather, it is only in the modeling where it was considered. Consistent with the commenters concerns, EPA was careful in our WOE evaluations and review to not consider the revised 2009-banked DERCs usage restriction in our emission trends analysis and monitoring trends analysis. For example in Table 5-11 of the MOAAD TSD, estimating the actual emission reductions between 2007 and 2009, EPA did not include any reductions due to the restriction on DERC usage. Therefore, EPA believes that we have appropriately considered the revised banked DERCs tpd usage restriction in adjusting assumptions about possible future emissions growth in the modeling but consistent with the commenter's concerns, we have not considered it in evaluating emissions and monitoring trends (analysis included in the WOE analysis). For a full discussion of DERCs and conditional approval, see the DERCs comments section below.

Comment (MC-9): The commenter indicated that EPA's reliance upon the low 2007 monitor readings is misplaced since extremely unusual weather, rain and low temperatures, dominated the 2007 DFW ozone season. The commenter continued that the first 100+ ° F temperature day was not reached until late August. The commenter concluded that EPA should not give TCEQ credit for something achieved only by the grace of God.

Response (MC-9): We rely on the 2007 monitored air quality levels as part of our Weight of Evidence analysis. We investigated the 2007 meteorology to determine how it compared with the DFW normal ozone season meteorology. To help account for all the different variables that impact the frequency of ozone we utilized a Meteorological Adjusted Trends

analysis that was done by EPA personnel at Office of Air Quality Planning and Standards (OAQPS) for the DFW area to assess the ozone conduciveness of the 2007 ozone season. OAQPS's analysis utilizes temperature and precipitation data in addition to several other factors. The results of this analysis were included in our proposal, and indicated that overall 2007 was near the normal meteorology for DFW's ozone season. See Chapter 5, section 5.15 and Chapter 6, section 6.3 in the MOAAD TSD.

The commenter asserts that the 2007 ozone season was biased low due to the influence of more rain than normal and less 100° F days than normal. EPA reviewed monthly meteorological National Climactic Data Center 2007 data for DFW International Airport (for the DFW ozone season months of March 1 – October 31). We evaluated average monthly temperature, monthly average maximum temperature, and monthly precipitation. Looking at this temperature information and precipitation data, EPA's assessment is that, while for several months the precipitation was above average, the ozone season and the core ozone months (June – September) were near normal overall. For more information, see the Supplemental TSD. Ozone formation is affected by a number of meteorological parameters and just looking at these three parameters does not give a complete evaluation of the ozone conduciveness of the 2007 ozone season.

The commenter was concerned that the meteorology was unusually nonconductive for generation of ozone exceedances in 2007. In light of this, EPA also reviewed ozone exceedance data for 2007, and found that the first exceedance occurred April 28th, and a number of exceedance days occurred starting in late-July (7/24) and the last exceedance occurred on October 4th. In all, there were 12 days with exceedances at one or more monitors in the DFW area in 2007. This is below the long-term normal trend of approximately 30 exceedance days per

year. The limitation of just evaluating the number of exceedance days to determine if meteorology was normal or below normal is that exceedance days are a combination of meteorology and emissions. Emissions decreases due to fleet turnover among other things could also explain part/or all of a lower than normal number of exceedance days in 2007.

Finally, we note that one reason we evaluate attainment of a NAAQS based on three years of data is that use of several years tends to mitigate any unusual meteorology that occurs during a specific year. The year 2007 is the first of the three years of data (2007-2009) that will be used for determining if the DFW area reaches attainment in 2009. The 2007 4th high maximums were all in the 80s ppb range or less for monitors that are typically near the area's design value. This is significantly lower than other recent years. Meteorological Trends analysis indicates that 2007 was closer to normal than 2005 and 2006. Therefore, the 2007 data is important from both a trends perspective as well as being the first of three years utilized in determining if the area reaches attainment in 2009.

Comment (MC-10): The commenter indicated the DFW emissions inventory has gaps and that EPA knows that there are hundreds of industrial sources involved in the gas well drilling and gas pipeline operations that were not modeled by the TCEQ and which TCEQ assumed to be insignificant. The commenter asserted that without modeling these significant sources of NOx emissions, the attainment demonstration may be in greater jeopardy than EPA or TCEQ admits.

Response (MC-10): The TCEQ projected the future emissions inventory for the industrial sources involved in the gas well drilling and gas pipeline operations with the most recent information available at the time of the emissions inventory development. Photochemical modeling is a very complex process and the emissions from natural gas production in the DFW area were rapidly changing during the last two years of modeling and SIP development and

continue to do so. Improving emission estimates and projections is one of the elements of photochemical modeling that always requires an agency to balance the need to incorporate new information with the time available to complete the photochemical modeling tool for SIP development, and still meet the submittal deadline.

TCEQ's basecase and future year (2009) SIP modeling did include estimates for emissions from industrial sources involved in gas well drilling and pipeline operations. During the commissioners meeting when the TCEQ adopted the DFW attainment demonstration SIP in May 2007, there were industry comments indicating emission estimates from natural gas compressor engines should be higher than were in the current modeling. Although the commissioners moved forward to adopt and timely submit the DFW 8-Hour Ozone attainment demonstration SIP, they also directed TCEQ staff to research the accuracy of the emissions inventories for these sources that were relied on in the attainment demonstration modeling. TCEQ staff subsequently conducted an additional survey to re-evaluate the number of stationary, gas-fired engines and other NO_x emission sources that are common at natural gas production and gathering (P&G) facilities, in the nine-county DFW area. TCEQ provided that information to EPA as supplemental WOE in a letter dated April 23, 2008, which EPA has considered in its decision on whether to approve the attainment demonstration SIP. Details of this survey, the results, and explanation of how this information was utilized in EPA's review were included in the proposal package (Proposal FRN, MOAAD TSD, etc.).

The survey collected data on existing NO_x sources and expected additional installations by 2009 so that a comparison to estimated levels in the 2009 SIP modeling could be conducted. The survey also collected data on when the NO_x emitting sources were installed. The survey indicated that P&G operations grew much more rapidly than projected in the SIP. Based on the

survey results, TCEQ concluded that the majority of emissions growth would come from the increase in compressor engines and not from other facets of P&G operations. TCEQ therefore provided new estimates for the compressor engines' emissions growth.

The survey indicated that almost all of the rapid growth that created the underestimation of additional engines and other related NO_x sources from natural gas P&G emission sources had occurred after the 1999 base year. Fortunately, TCEQ put in place regulations that will control rich and lean burn natural gas fired compressor engines in the DFW area. TCEQ also controlled some engines involved with drilling operations in the Increment of Progress SIP.

From the modeling perspective, using the new survey's results, the underestimation in the growth of emissions is greatly mitigated by TCEQ's implementation of NO_x controls on emission sources in this industry group in Chapter 117 rules adopted as part of the May 30, 2007 SIP submission. While mitigated to a large extent, the new survey data indicate that emissions in the demonstration modeling, i.e., the 2009 Combo 10 modeling, from these natural gas P&G sources would add 3.3 tpd based on our analysis of the TCEQ survey data. Using modeling sensitivity runs, we accounted for this approximate increase of 3.3 tpd in the projected emissions inventory, and we were able to estimate the effect on the modeled ozone levels. See Table 4 in the proposal. In considering the underestimation from a 'real world' standpoint, it is important to note that due to TCEQ's adopted regulations, a much larger amount of actual reductions of NO_x emissions (estimated as 35.7 tpd) will occur between 2007 and 2009 from the regulations on compressor engines and these extra reductions will help reduce DFW area ozone levels.

While these emissions were not fully accounted for in the initial photochemical modeling, TCEQ had developed the emission inventory for this industry group consistent with EPA's guidance. EPA appreciates the additional survey information that TCEQ provided and,

EPA considered the emissions in reviewing the attainment demonstration and found that TCEQ's revised emission estimates were acceptable. This information was clearly presented as part of the proposed rulemaking action and the commenter has not identified any substantive flaws with that analysis.

Comment (MC-11): The commenter indicated that the emissions inventory appears flawed, in part from the observation that the latest VOC area source emissions inventory was unaffected despite the substantial revisions to the gas drilling/compressor engine count, as reflected in revised NOx area source inventory revisions. The commenter further indicated that VOC emissions from the engine stacks, and fugitive emissions from the piping and valves that connect the engines, appear not to have been incorporated into the emissions inventory, and more importantly, not to have been considered in the photochemical modeling. The commenter asserted that the absence of these emissions in the revised inventory placed additional doubt on to the accuracy of the photochemical modeling to predict ozone levels in the western part of the nonattainment area.

Response (MC-11): The commenter is correct that the VOCs from P&G facilities in the DFW area may be underestimated, since the number of P&G facilities and related NOx sources had a large underestimation. As provided above, there are inherent uncertainties with emissions inventories. Unlike the NOx emission discussed previously, however, the VOC emissions from natural gas production are largely compounds that are not significantly reactive in the formation of ozone. EPA defines "Volatile Organic Compounds" (VOCs) per 40 CFR Part 51.100(s) (as amended through January 18, 2007) and specifically lists Methane and Ethane as organic compounds that have been determined to have negligible photochemical reactivity. Methane and ethane are typically 85-90% or more of the compounds present in natural gas from gas wells so

emissions from natural gas production would be expected to have a small impact on ozone production. In addition, modeling sensitivity analyses have shown that large reductions in all VOC emissions in the DFW area result in only very small changes in the area's ozone concentration level. Therefore, an underestimation of P&G VOC emissions would not change the Combo 10 and PDMR 2009 modeling projections significantly. See Section 4.2 of ENVIRON's "Ozone Benefits in DFW from Emission Controls in the 2009 and 2012 Future Years," September 2006, included as a reference to Chapter 2 of the TCEQ TSD.

TCEQ did not collect data on VOC sources in the 2007 survey that they conducted of natural gas P&G facilities in the DFW area. TCEQ focused on NO_x emission sources in their survey since numerous photochemical modeling analyses had shown that elevated ozone levels in the DFW area were much more sensitive to changes in NO_x emissions than VOC emissions. For these same reasons, EPA does not believe that uncertainty in the natural gas P&G VOC emissions would result in a significant change in modeling projections or change our conclusion that the DFW area will attain the 1997 ozone standard by its attainment date.

Comment (MC-12): The commenter indicated that the Base Case Monitoring Data is skewed because it relies on the 1999 episode and, focusing on the Frisco Monitor, misrepresents the greater and more current problems associated with monitoring data from monitoring stations to the northwest and west. The commenter continued that the use of this 10-year old base case set results in under-emphasis of the effect of the numerous sources, including the Ellis County cement kilns, Barnett Shale natural gas and oil drilling, and EGU's to the south of the metroplex which often have their plume carried in southeasterly winds into Tarrant County. The commenter asserted that the 1999 data set is flawed due to the unusual meteorological conditions as well as its overall lack of representativeness and that Texas must be directed to develop

additional base case data sets for SIP planning efforts.

Response (MC-12): EPA does not agree with the commenters' assertions for several reasons. As discussed in Section 2.3 of EPA's MOAAD TSD, EPA reviewed this 1999 episode and found it to be acceptable and representative of the combination of meteorology and emissions that generate ozone exceedance levels near the DV of the area at the time episodes were being selected for development of this SIP. The 2009 modeling projections evaluate ozone levels at all the monitors in the DFW area and, for this episode, both the Denton and Frisco monitors had the highest FDVs; therefore, the emphasis was not just on the Frisco monitor as the commenter asserts.

Photochemical grid modeling takes several years to develop and thus, at the time of submittal of a SIP, the episodes are typically several years old. Selection of episodes to model for SIP planning is a balance of finding historical periods with several days of exceedances that are representative of the conditions that generate ozone near the design value for the area and developing acceptable base case modeling in time to allow for a timely submittal of an attainment demonstration. At the time that TCEQ proposed the DFW attainment demonstration SIP in December 2006, the episode was just over 7 years old, not 10 years old as the commenter indicated.

Chapter 2 of the MOAAD TSD included sections that detailed EPA's guidance on episode selection, how the episode was originally chosen and further discussion and review that occurred in 2005 about the adequacy of this episode and the potential benefits of other episodes. The DFW area monitors that have been DV monitors or had values near the area's DV for the period 1999-2005 (the period that was reviewed for potential episodes was 1998-2004) indicates that all of these monitors have been either north of the DFW area (Frisco monitor) or in the

northwest sector (Tarrant and Denton Counties monitors). EPA has done a detailed review of both TCEQ's analyses and EPA's analyses of the conceptual model for high ozone in DFW and what monitors are the DV monitors. In years when light winds are more predominantly from the south, the northern monitors (Denton and Frisco) are the DV monitors. Other years, the winds and frequency of light winds are predominantly from the southeast, resulting in the Tarrant and Denton Counties monitors becoming the DV monitors. The location of the DFW area's DV monitor depends on the distribution of the frequency of wind directions during ozone conducive meteorology, but it is consistently on the downwind side of the DFW area. In fact, assuming the preliminary monitoring data through October 31, 2008 does not change, the Denton monitor will be the DV monitor for the 2006-2008 period. Preliminary data also indicate that the Denton monitor may be the DV monitor for the period 2007-2009 (based on 2007 and 2008 monitoring data). Approximately 70% of the local NOx emissions that lead to high ozone levels are emitted from mobile (On-Road and Nonroad emission sources) and the highest ozone levels typically occur downwind of the core DFW emissions area. Figures 3 & 5 of TCEQ's Appendix B of their SIP submittal illustrate the distribution of NOx emissions from On-Road and Nonroad emissions. Modeling, monitoring, and aircraft flights confirm that the highest levels of ozone occur downwind of the core DFW emissions area. As discussed above, the Frisco and Denton monitors are often downwind of the core DFW emissions area. Therefore, EPA does not agree that this episode, the control strategy, and the SIP overall, is biased by the Frisco monitor being one of the highest ozone monitors in the base year.

The commenter asserted that using the 1999 episode results in under-emphasis of the effect of the numerous sources, including the Ellis County cement kilns, Barnett Shale natural gas and oil drilling, and EGU's to the south of the DFW metroplex which often have their plume

carried in southeasterly winds into Tarrant County. As discussed elsewhere in this response and in EPA's MOAAD TSD, EPA conducted a thorough review of EPA's episode selection guidance, conceptual model for high ozone events in DFW, and episodes available for modeling at the time of episode selection and EPA determined that this episode was appropriate and acceptable. EPA does not recommend episode selection be based on trying to target specific industry/emission sources but should weigh a number of factors in selecting episodes for photochemical grid modeling to be utilized for SIP development as was done in this situation.

Afternoon wind from the southeast is one of the more prevalent wind directions for high ozone in the DFW area. In TCEQ's conceptual model description for high ozone events in the DFW area, morning winds out of the south or southwest often occur and then transition to out of the southeast or east in the afternoon. Therefore, the sources mentioned can impact the Denton and Frisco monitors for some of the hours of the day (that contribute to a high 8-hour ozone value). This episode has two days with winds from the southeast in the afternoon (8/17 and 8/22). August 17th had winds out of the southwest in the morning that transitioned to winds out of the southeast in the afternoon. Forward wind trajectories for the 17th indicate the emissions from the Ellis County cement kilns were carried over the Frisco and Denton monitors. On the 17th, it is also likely that emissions from the other sources mentioned would also be carried over the Denton and potentially Frisco monitors. Even on days that the winds do not take emissions from these sources over the Frisco and Denton monitors, the modeling still utilizes these emissions (and changes in these emissions) in projecting ozone levels in the modeling domain. Among modeling analyses that can be impacted by emission reductions at these sources are changes in ozone exceedance metrics, such as number of grid cell 8-hour ozone exceedances predicted and other metrics that consider the level of exceedances predicted for each grid cell.

In summary, EPA has reviewed the episode and determined that the episode is representative of the conditions most often associated with high eight-hour ozone in the DFW area.

Comment (MC-13): Commenters indicated that the future case attainment demonstration modeling included NO_x reductions from Phase I Clean Air Interstate Rule (CAIR) controls for EGUs outside of Texas. Commenters indicated that since these reductions are now unlikely to occur, at least on the original timeframe, the anticipated ozone air quality benefits will be reduced. Commenters asserted that EPA should consider this effect on the modeling and the WOE analysis.

Response (MC-13): The EPA has considered the impact of a CAIR vacatur and determined that even an immediate vacatur of CAIR would not change our conclusion that the modeling and weight of evidence show that the DFW area will attain the 1997 8-hour ozone standard by the deadline. The principal reasons for this conclusion are: 1) Chapter 117 rules in the Texas SIP implemented in the entire eastern half of Texas are equivalent to the Phase I rules of CAIR; 2) evaluation of controls already installed in the nearest States impacted by CAIR, Arkansas and Louisiana, show that significant reductions will still be implemented; 3) many of the more distant states impacted by the CAIR vacatur are also subject to the NO_x SIP call so much of CAIR Phase I NO_x reductions will remain in place; and 4) available modeling shows that loss of CAIR only has a small impact on the DFW area..

Texas implemented NO_x controls on EGUs in the entire eastern half of Texas that are approved into the Texas SIP, are enforceable, and are equivalent to reductions from CAIR Phase I for East Texas EGUs. The rules can be found in Texas Administrative Code Title 30 Part 1 Chapter 117 Subchapter E Division 1 (117.3000 – 117.3056). Therefore, the level of NO_x

reductions from EGUs within the entire eastern half of Texas for the 2009 period is not related to the status of the CAIR rules. With regard to EGU emissions in the western half of Texas, EPA has concluded that emissions from these sources would rarely be transported to the DFW area during periods of high ozone in DFW. Thus, any changes in emissions from Texas EGUs related to a vacatur of CAIR are not expected to impact DFW ozone exceedance levels prior to the attainment date.

In fact, the main change in emissions in the DFW photochemical modeling domain due to a CAIR vacatur is for CAIR states that were not part of the NO_x SIP call and were outside of Texas. Of these states, Louisiana and Arkansas are the closest upwind states to DFW and would be expected to have the largest potential impact on ozone level changes in DFW due to the CAIR vacatur. We have reviewed EPA's Clean Air Market's Division National Electric Energy Data System database (July 2008 version) that tracks equipment that has been installed to meet the CAIR requirements for the EGUs in these two states. Our evaluation of controls installed at facilities in Arkansas and Louisiana considered whether installed controls were integral to operation of the unit (example: Low NO_x Burners), or if the controls could be shut-off (Example: Over-fire Air) or potentially bypassed (SCR). We have also conferred with Louisiana and Arkansas Departments of Environmental Quality in an attempt to confirm the information in the database.

Our analysis of Louisiana major EGU's indicates that most controls are based on Over-Fire Air or SCR (based on discussions with LDEQ (September/October 2008)). However, the Dolette Hills is the closest large Louisiana coal-fired EGU that is outside Texas and has the highest potential to impact DFW area ozone levels of any coal-fired EGU outside of Texas. It is often upwind of the DFW area when the DFW area has elevated ozone levels. Low NO_x burners

and Over-Fire air have been installed at the Dolette Hills unit to reduce NOx emissions. In the absence of CAIR, it is possible that the utilization of Over-Fire air could cease, but the Low NOx burners are integral to the boiler operation and cannot be bypassed. Therefore, even if the Over-Fire Air were not operated there would still be permanent large NOx reductions on the order of 2000 to 3000 tpy of NOx (based on Discussions with LDEQ) compared to 4000 to 5000 tpy of NOx with Over-Fire Air and Low NOx Burners.

Our analysis of EGUs in Arkansas indicates that for the coal-fired EGU's, most are being controlled with Over-Fire Air, but one 523 MW unit is being controlled with Low NOx burners that has been installed and should remain installed. For the gas-fired EGUs, most are being controlled with Dry Low NOx burners in combination with SCR. The Low NOx Burners are integral to the operation. The SCR, however, conceivably could be turned off. Dry Low NOx burners can achieve up to a 30% reduction by themselves so significant reductions will still occur.

Therefore, even with a vacatur of CAIR, significant reductions will still occur in Arkansas and Louisiana including at the closest, up wind plant, Dolette Hills. As for the reductions in other States impacted by a CAIR vacatur, many of these States were part of the NOx SIP call. The NOx SIP call reduction requirements remain in place. States affected by the NOx SIP call include: Alabama, Connecticut, Delaware, Georgia, Illinois, Indiana, Kentucky, Maryland, Maine, Michigan, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia and the District of Columbia. While some states' rules implementing the NOx Budget Trading Program (established by the NOx SIP call) have a sunset provision in anticipation of being replaced by the CAIR ozone-season trading program, EPA expects the majority of controls to remain in place.

EPA has asked States with sunset provisions to move quickly to address this concern.

We believe that it is reasonable to consider that the reductions identified above will occur because the previously installed controls are integral to the operation of the EGUs and are not likely to be bypassed or circumvented or are required to comply with regulations implementing the NO_x SIP call.

EPA also considered available modeling evidence in considering the impact of a CAIR vacatur. First, the photochemical modeling upon which the CAIR rule itself was based did not result in any other State being included in the CAIR rules because of its impact on the DFW area. In other words, no state was included in CAIR because of its impact on the DFW area.

No modeling exists that directly evaluates the impact of a CAIR vacatur on the modeling episodes used in the final DFW SIP modeling so it is not possible to directly evaluate the impact on Combo 10 or PDMR 2009 control strategy runs. EPA has found two modeling analyses that help to evaluate the potential impact of the CAIR vacatur on DFW ozone levels.

We also have reviewed sensitivity modeling that evaluated potential CAIR impacts conducted on an earlier version of DFW modeling. This modeling was included in the HARC 35 Project Phase II Report (“Dallas/Fort Worth CAM_x Modeling: Improved Model Performance and Transport Assessment Project H35, Phase 2”; ENVIRON; August 2005). The H35 Phase II report evaluated the impact of the CAIR emission reductions throughout the Eastern U.S. on DFW ozone levels in 2010. The report included a bar chart (Figure 10-4), showing episode average contributions to high 8-hour ozone in the DFW 9-county NAA by source region and emissions group. Side-by-side bars show the subtle changes due to the CAIR EGU controls. Controls expected from CAIR reduced episode average high ozone in the DFW NAA by 0.3 ppb. The episode peak ozone was also lowered 0.3 ppb over DFW from the CAIR controls. This

early modeling did not include some of the later emission inventory and meteorological refinements, but a new evaluation with the modeling submitted with the attainment demonstration would not be expected to yield significantly differing results.

We also looked at some earlier modeling that was included in Table 4-1 of the H35 Phase I Report (HARC Project H35, Transport Contributions From Out-of-State Sources to East Texas Ozone, February 2005). The H35 Phase I report indicated that controlling a 25% NO_x reduction on all EGUs in Arkansas, Louisiana, Mississippi, Missouri (NO_x SIP call state), Oklahoma (non-CAIR state), Tennessee (NO_x SIP call state), and the Gulf of Mexico (non-CAIR area) yielded a 0.1 ppb reduction in ozone on average 2007 elevated ozone levels (evaluated levels above 75 ppb and 85 ppb) in DFW area for the DFW's SIP episode. While this analysis is for 2007 and conservatively includes 25% NO_x reductions in two NO_x SIP call states, 25% reductions in Oklahoma (non-CAIR state), and 25% reductions in Gulf of Mexico EGUs; all of which are additional reductions not related to the CAIR Phase I rule. The 2007 modeling analysis is further evidence that the DFW area is not influenced by out-of-state EGU emissions at times when elevated ozone levels occur in DFW.

Both of these modeling analyses consistently show a picture that out of state reductions only have a small impact of 0.1 to 0.3 ppb or less on model projected design values in the DFW area. The two CAIR assessment analyses (EPA-Fall 2008 and H35 Phase II) are conservative because they remove all CAIR reductions from the modeling. This does not take into account that for non-NO_x SIP call states, some CAIR controls will generate reductions because the controls are integral to the combustion process and will not likely be removed (Low NO_x Burners, etc.). These two CAIR modeling analyses also rely on 2010 EGU projections, which include an additional year of EGU growth, compared to the growth that would be included for a

2009 evaluation. These modeling evaluations over predict for NO_x during the 2009 ozone season because many states will still have in place NO_x controls required by the NO_x SIP call.

The worst-case assessment of a 0.1 to 0.3 ppb increase on model projected FDVs, in itself, is small enough that for most model projections, no change in the truncated ppb value would occur. Given that the actual impact of a vacatur on emissions would be smaller than in these worst case analyses, EPA believes that the status of the CAIR rules should not impact our decision to approve the DFW attainment plan.

We have included further discussions of a vacatur of CAIR on the modeling and WOE analysis in a separate response to comment that addresses comments on the adequacy of the WOE analysis and the conclusion of whether the DFW NAA will reach attainment.

Comment (MC-14): The commenter indicated that the DFW attainment demonstration model has considerable challenges as detailed in the Notice of Proposed Rulemaking. The commenter noted that model development is a resource intensive process and the state simply needs to apply additional resources to this process. The commenter stated that throughout the development of the May 2007 SIP revision, the State indicated that it had insufficient resources to improve the attainment demonstration and incorporate alternative and more recent ozone episodes. The commenter concluded that the State has not allocated adequate resources to SIP development, including model development, to develop models robust enough to accurately predict ozone concentrations in the attainment year and beyond. The commenter then concluded that as part of any final action, EPA should advise the state that failures to program sufficient resources to meet CAA requirements in the future will not be accepted as justification of inadequate or incomplete demonstrations of attainment.

Response (MC-14): All states and other entities that conduct photochemical modeling

must address competing priorities and determine whether additional work will provide significant additional value. They must consider several factors including the time available for completion of modeling of episode(s), updating of emissions inventories, the resources needed to conduct further refinements or additional episodes, and the overall benefit of delaying the project to conduct additional modeling work.

The commenter is correct that modeling is a very resource intensive process. Photochemical modeling requires creation of very detailed emission inventories and meteorological modeling to be used in photochemical modeling in an attempt to replicate a historical event when ozone exceedances have occurred. Once photochemical modeling has been created that performs sufficiently well, the basecase modeling can then be used in conjunction with future case modeling of the same meteorological conditions to test attainment demonstration strategies. It often takes many iterations of refinement of emissions and/or meteorological fields to result in basecase photochemical modeling that performs sufficiently in accordance with TCEQ's meteorological performance metrics and EPA model performance metrics.

As discussed in the proposal and the MOAAD TSD, TCEQ did consider and complete exploratory work on other episodes. But initial analyses indicated that the additional episodes would not give significantly different results compared to the existing episode. As we explain in Section 2.3 of the TSD, we believe in this case, the one episode is acceptable for control strategy development. EPA evaluated the preliminary analyses of other episodes and concurred that it did not appear that the additional episodes would alter the model projections on what was needed to reach attainment.

EPA believes that the episode selection is appropriate, and that the modeling was

sufficiently robust. The demonstration modeling combined with the WOE analyses are sufficient to show that the DFW area will attain by the deadline.

Comment (MC-15): Commenters indicated that the DFW 8-hr ozone SIP proposal by TCEQ is significantly flawed and fails to support the required attainment demonstration by 2010. Commenters continued that the DFW modeling by TCEQ shows that several ozone monitors in 2010 will still exceed the rounded-up standard of 84 ppb. A commenter asserts that the CAA requires that SIPS show clear attainment for all ozone monitors in a nonattainment area and the reason that the air modeling shows exceedances in 2010 is because the proposed reductions by TCEQ are inadequate.

Commenters also indicated that according to Table 5 of the Federal Register notice, TCEQ's plan predicts that 2 monitors in the region would not meet the 8-hour ozone NAAQS after implementation of the control strategy (PDMR 2009) and consideration of TCEQ's Weight of Evidence. Commenters continued that they are aware that EPA's ozone implementation guidance allows a "Weight of Evidence" demonstration to supplement the modeling analysis required by the CAA but assert that this analysis fails to overcome the inadequacy of the TCEQ's proposed control strategy to bring the DFW area into attainment.

Commenters indicated that the proposal establishes repeatedly that ambient air quality is likely to remain above the artificial rounded-up standard of 84 ppb (Tables 2, 3 and 5). The commenters went on to assert that after disclosing that state WOE calculations fall short of meeting the attainment goal, EPA ultimately relies on their "simplistic" analysis concluding that 15% of the NO_x emissions inventory will be reduced by existing measures not present in 2007. The commenters continued that given the degree to which design values have to fall, from 95 ppb to 84 ppb, and in light of the 2010 attainment date, EPA should consider that the drop in the

NO_x and VOC emissions inventories from 2007 to 2009 are completely insufficient, according to EPA's own studies and guidance, to bring about the drop in DVs needed to reach attainment. The commenters further continued that EPA's own analysis of the most recent TCEQ modeling shows that the State was only able to get all the area's predicted DVs below 88 ppb with a non-standard and non-approved calculation of RRF factors and EPA's own analysis with the proper RRF procedure showed that monitors were still above the 88 ppb threshold.

A commenter indicated that the WOE approach by the TCEQ is flawed since it fails to show attainment by 2010 and EPA needs to reject it as bad science.

Response (MC-15): We responded to comments on the TCEQ and EPA RRF methods in a separate response to comments above. Overall, EPA considered both RRF methods and the results of those methods in our review. Also, as explained in previous responses, we considered the results of modeling from both Combo 10 and PDMR 2009 modeling runs.

EPA disagrees with the commenter that the modeling alone must demonstrate attainment in order for EPA to approve the attainment demonstration. EPA discussed both in the DFW MOAAD TSD and the proposal, EPA's guidance on modeling and WOE usage. As with any predictive tool, there are inherent uncertainties associated with photochemical modeling (emission estimates, emission projections, meteorological modeling, chemical reaction equations and simplifications, etc.). 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. This was further updated in 2005 and 2007 for the 1997 8-hour ozone attainment demonstration procedures to include a WOE analysis as an integral part of any attainment demonstration due to concerns of modeling

uncertainties. This guidance strongly recommends that all attainment demonstrations include supplemental analyses beyond the recommended modeling. These supplemental analyses should provide additional information such as monitoring data analyses, and emissions and air quality trends, which help corroborate the overall conclusion from the photochemical modeling. EPA's modeling guidance specifically recommends that a WOE analysis be included as part of any attainment demonstration SIP where the modeling results predict FDVs ranging from 82 to less than 88 ppb (EPA's 2005 and 2007 A.D. guidance documents). It is important to note that EPA recommends a WOE analysis even if the modeling is demonstrating attainment at *all* the monitors. 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).

In this case, the commenters are correct that the final modeling based projections show two monitors above attainment levels. Prior to conducting the model based projections, the highest modeling values were 88/89 ppb (TCEQ/EPA RRF method), but after modeling based adjustments were conducted to account for reduced airport emissions, DERC usage limitations, and back-up generator reductions, the highest value using either RRF was 88 ppb. EPA specifically recommends a WOE analysis be performed when modeling values are within the range indicated by the DFW analysis.¹¹

EPA's guidance (2005 A.D. Guidance) does indicate that a local 30% NO_x reduction may only yield a 3-4 ppb change in modeling values. That assessment was based on coarser resolution photochemical modeling that is typically less responsive to emission changes than the finer grid modeling that was used in DFW. Here, EPA is relying on analyses that were done

¹¹ The modeling guidance does not specifically preclude the use of WOE when the modeled values are higher than the recommended WOE range.

employing the DFW modeling to determine the potential change in ozone due to the additional NOx reductions that are estimated to occur by 2009. Relying on these DFW analyses, EPA estimates that the 25.4% local DFW area NOx reductions occurring between 2007 and 2009 would reduce ozone concentrations by approximately 3-4 ppb. As discussed in detail below, EPA is considering much more than just the modeling in making our conclusions on the adequacy of the attainment demonstration and determining that the 2005-2007 DV of 95 ppb will drop to attainment levels (84 ppb) in 2009.

EPA evaluated many factors in the WOE. These items include reductions not included in the modeling based projections (energy efficiencies), unquantifiable measures (AirCheckTexas, Dallas Sustainable Skyline Initiative, etc.), meteorological analyses of severity of ozone seasons (the base period and recent years, including 2007), most recent monitoring in 2007 (a 4th high of 89 ppb at two monitors and the other 18 monitors had 4th high values of 87 ppb or less), the court's vacatur of CAIR, progress in implementing the TERP program, and progress in implementing the early compliance incentive on natural gas compressor engines outside the DFW area. The amount of NOx reductions quantified in the SIP from the 2007 period that are estimated to occur by 2009 are approximately 15% of the estimated 2007 EI; these reductions will come from the existing federal, state, and local measures. When one includes the additional reductions due to the underestimation of emission reductions from compressor engines, the backup generators, and the State's progress in implementing TERP, there would be a 25.4% reduction in NOx emissions between 2007 and 2009, which could yield approximately a 3-4 ppb drop in ozone based on modeling projections.

In a response above, we concluded that 2007 had meteorology similar to normal meteorology. We also examined whether the 2008 data indicates a trend toward attainment for

the area. We examined the 2008 preliminary data, which is awaiting QA/QC. The 2008 preliminary data show that the DFW area had 4th high values of 85 ppb at two monitors and at the other 18 monitors, the value was 84 ppb or less. The 2008 preliminary data indicate the 2006-2008 DV is 91 ppb (down from 95 ppb in using 2005-2007 monitoring data). For the monitor that has the highest average 4th high values in 2007 and 2008 and is likely to be the controlling monitor (or one of the highest monitors) for determining if the area reaches attainment based on 2007-2009 data, the monitor's DV for the 2007-2009 period would have to be less than 85 ppb. It is important to note that this monitor (Denton) had a preliminary 4th high value in 2008 of 84 ppb. Considering the 2008 preliminary data with most of the 4th highs of 84 ppb or less, and that much of the DFW SIP reductions and another year of fleet turnover are still to occur, the ambient air quality trend strongly supports that the DFW monitors will reach attainment in 2009. EPA believes that the closer an area is to its attainment date, the more weight should be given to the actual ambient data and the expected additional reductions in considering whether an area will reach attainment.

We have considered modeling using two emission reduction scenarios (Combo 10 and PDMR 2009), recognizing that the actual emission control level would be somewhere in between, and two types of RRF calculations. We have also considered the impact of additional measures and reductions documented in the April 23, 2008 letter. With these adjustments, the modeling is demonstrating 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, after evaluating additional evidence in a WOE analysis, that the area will attain by its attainment date. Specifically, we 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 due to the emission reductions achieved by local and regional rules. We considered the impact of meteorological adjustments to the design value projection, which would further indicate the future projections may be too high. We have recognized emission reduction efforts that have not been quantified and included in the modeling and model-based WOE estimates. We also considered and gave significant weight to non-modeling evidence of recent monitoring and projected NO_x emission changes between 2007 and 2009.

We have also considered ambient data in 2008 and progress in implementing control measures in making our final conclusion on the DFW area's 8-hour Ozone SIP's Attainment Demonstration adequacy. For example, we weighed a vacatur of the CAIR rules and its potential impact on the DFW area. As discussed in detail in a response above, we concluded that the removal of CAIR may result in a change in 8-hour ozone modeling values of 0.1-0.3 ppb. We also considered that fewer engine controls were installed using the early compliance incentive money that was available.

We have also considered the progress in implementing the TERP program. This program has achieved all of the reductions that were projected in the May 30, 2007 submissions. These reductions were included in the modeling. In its April 2008 letter, Texas indicated that an additional 14.2 tpd of emission reductions could be achieved through the additional funding made available by the legislature. EPA relied on this projection as part of our weight of evidence evaluation in our proposal. As discussed in the response to comments on the TERP reductions, since our proposal notice, additional information has become available on the status of TERP projects and the State's progress in meeting its WOE projection of 14.2 tpd of NO_x emissions reductions in 2008 and early 2009. Recently TCEQ announced they would be delaying the 2009

TERP grant application cycle, due to Hurricane Ike. Due to this unfortunate delay (the grant application cycle opened December 1, 2008), FY2009 grant money will be issued later than originally thought. Approval of grants will not likely occur by the beginning of the DFW ozone season (March 1, 2009), but approval of grants should start in the May to early June timeframe. While this is not by the beginning of the ozone season, it is soon enough that reductions could start occurring before the core ozone season and therefore additional reductions can be considered as weight of evidence.

This is confirmed by an examination of 2004-2007 and preliminary 2008 monitoring values for the typical design value monitors (north and northwest sides of the DFW area) which is included in the supplemental TSD. It shows that the 1st to 4th high 8-hour ozone values (values that are utilized in setting the area's DV) are usually set in the June through September timeframe.

Since the approval of FY2009 grants should start before or during the beginning of the core ozone period for the DFW area, some additional reductions can be considered as WOE. At this point, it seems unlikely that the full 14.2 tpd will be achieved even by the core ozone season. To evaluate the impact, we assumed that TCEQ would achieve approximately 70% of the originally projected 14.2 tpd; consequently, there might be a loss in reductions of approximately 4.2 tpd. See the Supplemental TSD. Then in looking at the modeling based WOE, the increase in projected NO_x would yield approximately an additional 0.10 to 0.22 ppb at the monitors with the highest FDVs. We have also revised our estimate of actual reductions between 2007 and 2009 to consider this potential loss in TERP emission reductions. Rather than the 26% we considered at proposal, our new estimate is a 25.4% reduction of the estimated 2007 emission levels.

Finally, over half of the previously discussed 25.4% reductions of NO_x emissions (between 2007 and 2009) in the DFW area are slated to occur between the 2008 and 2009 ozone seasons. Due to these large local reductions, we expect the 2009 ozone levels to be lower than 2008 levels.

In summary, EPA has considered a number of factors. As pointed out by commenters, some control strategies, notably CAIR and TERP, are likely not going to achieve the reductions originally expected. As discussed above, we considered the impact of these factors to be relatively small. We believe that at this time, with the attainment date only months away, we should give considerable weight to the recent air quality trends and to expected further reductions that will occur before the 2009 core ozone season. Therefore, considering all of the factors discussed above with the elements we considered in the proposal (available modeling, evidence, analyses, and adopted control strategies) and the comments we received, EPA believes the DFW area will reach attainment of the 1997 8-hour ozone standard by its attainment date.

E. Comments on Discrete Emission Reduction Credits (DERCS)

Comment: A commenter states that EPA's conditional approval of the DFW attainment demonstration does not provide for adequate public review and comment on the measures TCEQ has committed to implement. The commenter is concerned that the public will not have the opportunity to review and comment on the DERC flow control limit.

Response: Section 110(k)(4) of the Act authorizes conditional approval of "a plan revision based on a commitment of the State to adopt specific enforceable measures by a date certain, but not later than 1 year after the date of approval of the plan revision." Conditional approval is authorized when a SIP contains substantive, but not fully satisfactory, provisions, and

the State commits to submit specific enforceable measures to cure the deficiencies. We have proposed to conditionally approve the DFW attainment demonstration conditioned on the TCEQ submitting a complete SIP revision by March 1, 2009, that includes an enforceable mechanism providing a 3.2 tpd restriction on the amount of DERCS available for use in the DFW area starting March 1, 2009. If the State wishes to use more than 3.2 tpd of DERCS in the DFW area after 2009, there must be an enforceable mechanism that provides for increases above 3.2 tpd beginning January 1, 2010 as long as this increase is consistent with attainment and maintenance of the standard.

Section 110(a)(2) of the Act and 40 CFR Part 51 require the State to conduct a 30-day public comment period and hold a public hearing on a proposed SIP revision submittal. Further, the State must include in the adopted SIP revision submittal, a response to all the received comments. The TCEQ has proceeded with a proposed rulemaking and held a public comment period, pursuant to the requirements of the Act and 40 CFR Part 51, from August 6 through September 12, 2008, on the proposed DERC SIP revision to meet the condition. Additionally, the State published the proposal in the Texas Register and held public hearings on September 9, 2008, in Dallas, Texas and on September 10, 2008, in Arlington, Texas. EPA and others provided comments.

Upon receipt from the TCEQ of a complete DERC SIP revision, EPA will review it and propose action in the Federal Register. In this notice, we will provide, as required by the Act, an opportunity for a 30-day public comment period.

The public is provided with three separate opportunities to review and comment on the DERC SIP revision – during (1) the comment period for EPA’s proposed conditional approval of the DFW attainment demonstration; (2) the comment period for the State’s proposed rulemaking;

and (3) the comment period for EPA's proposed action on the DERC SIP revision. Thus, EPA finds that there are ample opportunities for public review and comment on the DERC SIP revision.

Comment: A commenter states that EPA's conditional approval of the DFW attainment demonstration relies upon the DERC rule; yet EPA has only conditionally approved the DERC rule into the Texas SIP. The commenter states that emission credits subject to the DERC rule should not be relied upon as part of the attainment demonstration SIP until EPA fully approves the DERC rule.

Response: As noted in the previous response, the Act authorizes conditional approval based on a State's commitment to adopt specific enforceable measures by a date certain. If the State fulfills its commitment with respect to the DERC flow control limit and EPA approves the submission, we believe the attainment demonstration will include all enforceable measures necessary to attain by the attainment date. The attainment demonstration cannot be fully approved until the State submits and EPA approves the revision to the DERC rule providing for the 3.2 TPD flow control limit. In the interim, as provided in the Act, the plan may be conditionally approved with a commitment to submit the necessary DERC rule revision.

As the commenter notes, the DERC rule is already conditionally approved (see 71 FR 52703, September 6, 2006). In our final conditional approval of the DERC rule, we stated that a conditional approval is treated as a full approval until such time that EPA takes action to disapprove the rule. Therefore, it is acceptable for TCEQ to continue allowing DERCs to be used within the DFW nonattainment area.

Further, the terms of the 2006 DERC conditional approval do not directly impact the DFW attainment demonstration and its DERC flow control condition. TCEQ committed to

making the following revisions to the DERC rule in their September 8, 2005, commitment letter and to comply with these commitments during the 2006 DERCs conditional approval period:

1. Revise Title 30 Texas Administrative Code (30 TAC) § 101.373 to prohibit the future generation of DERCs from permanent shutdowns and to allow DERCs generated and banked from permanent shutdowns prior to September 30, 2002, to remain available for use for no more than five years from the date of this letter.
2. The TCEQ will perform a credit audit to remove from the emissions bank all DERCs generated from permanent shutdowns after September 30, 2002. Even if the shutdown itself occurred before September 30, 2002, no DERCs can be generated from that event after September 30, 2002.
3. Revise 30 TAC §§ 101.302(f), 101.372(f)(7) and 101.372(f)(8) to clarify that EPA approval is required for individual transactions involving emission reductions generated in another state or nation, as well as those transactions from one nonattainment area to another, or from attainment counties into nonattainment areas. The TCEQ further understands that the EPA would require a SIP revision prior to approving a transaction between another state or nation, as well as, those transactions between counties not located within the same nonattainment area.
4. The TCEQ will revise Form DEC-1, Notice of Generation and Generator Certification of Discrete Emission Credits; Form MDEC-1, Notice of Generation and Generator Certification of Mobile Discrete Emission Credits; and Form DEC-2, Notice of Intent to Use Discrete Emission Credits, to include a waiver to the federal statute of limitations defense for generators, and users of DERCs and mobile discrete emission reduction credits (MDERCs). Please be reminded that there is currently no applicable state statute

of limitations in the State of Texas. In addition, the TCEQ will maintain its current policy of preserving all records relating to DERC and MDERC generation and use for a minimum of five years after the use strategy has ended.

5. Revise 30 TAC §§ 101.302 and 101.372 to clarify that a proposed quantification protocol may not be used if the TCEQ Executive Director receives a letter from the EPA objecting to the use of the protocol during the 45-day adequacy review period or if the EPA proposes disapproval of the protocol in the Federal Register.
6. Revise 30 TAC § 101.306 to specify that Emission Reduction Credits may be used within the highly reactive volatile organic compounds Emissions Cap and Trade program as an annual allocation of allowances as provided under 30 TAC § 101.399.

TCEQ submitted revisions to the DERC program on October 24, 2006 to address the 2006 condition. EPA is currently reviewing this SIP revision submittal and will take action at a later date and in a separate rulemaking on whether TCEQ's revisions to the DERC program adequately satisfied the terms of the 2006 DERC conditional approval. In the meantime, the DERC program can continue to be used in Texas, including the DFW area. Conditions 1 and 2 pertain to DERCs generated through permanent shutdowns and provide that any shutdown DERCs generated prior to September 30, 2002, in the DFW area would be available for use until September 8, 2010. Projected uses of these pre-September 30, 2002 shutdown DERCs were appropriately modeled and accounted for by TCEQ as part of the overall DERC usage projections in DFW. Emission reductions subject to condition 3 do not impact the DFW attainment demonstration since EPA has not been contacted about using discrete emission reductions in the DFW area that have been generated in another state, nation, nonattainment area, or surrounding attainment counties. Conditions 4 and 5 modify the DERC rule to align the

DERC generation and use procedures with EPA's Economic Incentive Program Guidance.

These conditions do not negatively impact the projected uses of DERCs that were accounted for in the DFW attainment demonstration. Condition 6 only applies to DERCs used in the Houston/Galveston/Brazoria ozone nonattainment area and is therefore not applicable to the DFW attainment demonstration.

As discussed previously, TCEQ submitted revisions to the DERC program on October 24, 2006 to meet the 2006 DERC condition. EPA is currently reviewing these revisions to the Texas SIP and will take action in a separate rulemaking. These revisions, as noted above, have no impact upon the DFW area's attainment demonstration SIP and its reliance upon DERCs.

Comment: Commenters believe that the DERC usage limitation should be required every year rather than allowing a different approach after 2009. Commenters also believe that the enforceable flow control mechanism lacks specificity, may be backsliding (contrary to the Act's requirements) and may not demonstrate continued attainment of the 1997 ozone standard in the DFW area.

Response: Commenters will be able to address the substance of the DERC flow control SIP revision and its effect on the attainment demonstration once it is submitted to EPA. Until the State adopts and submits this revision to the DERC rule, it is premature to speculate about what the State might choose to do. However, we note that so long as the State demonstrates that the adopted rule will not interfere with attainment by June 2010 and maintenance of the NAAQS in the following years, EPA cannot mandate that the State apply the same approach in subsequent years that it chooses to apply in 2009.

In our proposed conditional approval of the DFW attainment demonstration, we described the requirements of the 2009 DERC flow control condition and the enforceable

mechanism that must relate it to the DFW attainment demonstration. We specifically recognized that the DERC usage limitation did not need to be required every year after 2009. For all years after 2009, the TCEQ will have the option to retain the 3.2 tpd DERCs usage restriction or choose to increase the amount of tpd of DERCs usage, as long as there is an enforceable and replicable mechanism in place to ensure the increase in tpd of DERCs usage as offset by other measures, continues to ensure attainment in the area by having the same impact as if the 3.2 tpd DERCs usage restriction remained in effect. This includes the quantity and spatial allocation impacts of increased tpd of DERCs usage on the ozone levels. Therefore there would be no backsliding, even if the amount of tpd of DERC usage increased.

In our proposal, we described a specific enforceable mechanism that would be acceptable concerning the substitution of other measures beginning January 1, 2010, allowing more than 3.2 tpd of DERCs usage in a year. As discussed in our DERC response to comments number 1, the public will receive three opportunities to review and comment on the merits and nature of the 2009 DERCs limit and the after-2009 enforceable mechanism in the DFW area – during (1) the comment period for EPA’s proposed conditional approval of the DFW attainment demonstration, (2) the comment period for the State’s proposed rulemaking, and (3) the comment period for EPA’s proposed action on whether the condition has been met.

EPA believes that with the public review and comment opportunities provided, as well as the specifications outlined in our proposed conditional approval rulemaking, there will be sufficient opportunities to ensure that EPA has received relevant comments and information to allow EPA to make an informed decision on the acceptability and enforceability of the TCEQ’s DERCs SIP revision submittal.

Comment: Commenter states that the DERC emission reductions relied on in the DFW

attainment demonstration are inadequate.

Response: While EPA appreciates the effort and time of the commenter, the commenter has not provided any substantive description of why the DERC emission reductions relied on are inadequate for attainment.

F. Comments on Reasonably Available Control Measures (RACM)

Comment: Numerous commenters note that the cement plants in the DFW area are the largest source of industrial NO_x emissions in the DFW area. They claim there is available technology that would reduce NO_x emissions by 90% and the companies should be required to install Selective Catalytic Reduction (SCR) as NO_x RACM. They also note that the cement kilns are a large source of VOC emissions in the area but only one of ten kilns in Midlothian uses modern controls to reduce VOC emissions by 90%. Further, they claim that all Midlothian kilns should be required to install this technology, i.e., Regenerative Thermal Oxidizers (RTOs), as VOC RACM. Moreover, EPA needs to conduct an independent RACM analysis.

Response: EPA interprets the Act's RACM requirement to mean that a measure is not RACM if it would not advance the attainment date (57 FR 13498, 13560).¹² This interpretation has been upheld. See *Sierra Club v. EPA*, 294 F.3d 155 (D.C. Cir. 2002) and *Sierra Club v. United States EPA*, 314 F.3d 735 (5th Cir. 2002). A state must consider all potentially available measures to determine whether they are reasonably available for implementation in the area, and whether they would advance the area's attainment date. The state may reject measures as not meeting RACM, however, if they would not advance the attainment date, would cause substantial widespread and long-term adverse impacts, or would be economically or

¹² See also EPA's "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, November 30, 1999.

technologically infeasible. Additionally, potential measures requiring intensive and costly implementation efforts are not RACM. *Sierra Club v. EPA* at 162–163 (D.C. Cir. 2002); *Sierra Club v. EPA*, 314 F.3d 735 (5th Cir. 2002); *BCCA Appeal Group v. EPA*, 355 F.3d 817 (5th Cir. 2003). To demonstrate measures that advance attainment of the ozone standard, the emission reductions from the measures must occur no later than the start of the 2008 ozone season – i.e., by March 1, 2008, in order to advance attainment. Because there are no measures that could have been adopted and implemented by a date that has now passed, we believe it is appropriate to conclude that additional measures are not RACM.

EPA expects States to prepare a reasoned justification for rejection of any available control measure. The resulting available control measures should then be evaluated for reasonableness considering their technological and economical feasibility, and whether they will advance attainment. In the case of the DFW SIP, TCEQ performed an analysis to determine whether all RACM were included in the SIP.

To evaluate RACM for VOC measures, the State looked to all available RACM analyses and guidance for all the types of source categories in the DFW area and their potential controls. The State's analysis included evaluation of the potential RACM RTO control technology for cement kilns in the DFW area as VOC RACM. The State's photochemical modeling, however, indicated that the implementation of RTO technology on cement kilns in the DFW area would not advance attainment. The State's analyses indicated that it would take extremely large reductions of VOC emissions, over 100 tpd, to reduce the ozone level at the Denton monitor¹³ in

¹³ To determine whether a measure would be reasonable to require for implementation, we calculated the magnitude of emissions reductions that would advance the attainment date at the monitors with the highest future design values (DVs), which are the Denton and Frisco monitors. Of these two monitors, the Denton monitor has the higher DV (2005-2007) of 94 ppb, although it should be noted that the DV for the DFW area for 2005-2007 is 95 ppb. However, considering the Denton monitor, if implementation of a particular measure would result in a decrease of 1 ppb at the Denton monitor in 2008, we would consider such a measure as having the potential to advance the attainment date in the DFW area.

the DFW area by 1 ppb. Thus only measures that will provide approximately 100 tpd of VOC emissions reductions will timely advance attainment. We were unable to identify any potential RACM measures in the State's submittal that would provide 100 tpd or more of VOC reductions; this review also examined the use of RTO in cement kilns.

In addition to reviewing the State's submittal, EPA reviewed the State's 2005 and 2007 Emissions Inventories for Point Sources. This review showed that the cement kilns do not emit sufficient amounts of VOCs to achieve 100 tpd in emissions reductions. See the Supplemental TSD for more details. Consequently, EPA agrees with the State that there are no additional RACM for stationary source VOC emissions in the DFW area. Based upon this review, EPA concludes that the use of RTO on cement kilns would not advance timely attainment.

While we agree that one of the sources in the cement kiln source category uses the RTO technology - TXI #5 (Kiln 5), we do not extrapolate from this that use of the RTO technology on the other cement kilns in the DFW area will advance attainment of the 1997 ozone standard. See our previous comments and the Supplemental TSD for additional information.

To evaluate RACM for NO_x measures, the TCEQ looked to all available RACM analyses and guidance for all the types of source categories in the DFW area and their potential controls. The State's analysis also included evaluation of Low Temperature Oxidation Technology (LoTO_x), SCR and Selective Non-Catalytic Reduction (SNCR) as potential NO_x RACM for cement kilns. The State's modeling analyses indicate that reducing on-road mobile and area/non-road sources of NO_x is most effective in reducing ozone levels at the Denton and Frisco monitors. Our evaluation of the State's analyses found that reductions of NO_x emissions of at least 40 tpd would have the potential to advance the attainment date. See pages 2-29 to 2-30 of the TCEQ SIP Narrative. Thus, only measures that will provide approximately 40 tpd of

NOx emissions reductions will timely advance attainment. Neither the State nor EPA was able to identify any potential RACM measures that would provide 40 tpd or more in NOx emissions reductions. TCEQ had additional sensitivity modeling performed for cement kilns, which showed that the most stringent controls on the kilns would not advance the attainment date. See the Supplemental TSD for more detail.

The Fifth Circuit in *Sierra Club v. EPA*, 314 F.3d 735, 745 (5th Cir. 2002) impressed upon EPA the duty to (1) demonstrate that it has examined relevant data, and (2) provide a satisfactory explanation for its rejection of a proposed RACM and why the proposed RACM, individually and in combination, would not advance the area's attainment date. *See Ober*, 243 F.3d at 1195 (*quoting American Lung Ass'n v. EPA*, 134 F.3d 388, 392-93 (D.C. Cir. 1998)). We reviewed the State's analysis and discussed our evaluation of it in the July 2008 TSD and the December 2008 Supplemental TSD for this rulemaking; both TSDs are in the docket for this rulemaking. EPA evaluated the State's analysis and explained in the TSDs why we agree with the State that no additional measures are RACM for the DFW area and therefore the RACM requirement of the Act is met. We performed an independent analysis by reviewing all available data to determine whether RTO and NOx controls achieving 80 - 90% reduction are RACM for cement kilns in the DFW area; we agree with the State that additional control measures would not advance the attainment date.

G. Comments on the Failure-to-Attain Contingency Measures Plan

Comment: Some commenters merely state that the contingency measures are insufficient without providing any support. Others comment that the four failure-to-attain contingency measures are insufficient because they will not result in demonstrative, verifiable, and

enforceable emission reductions.

Response: Some of the comments simply allege that the contingency measures are insufficient and the commenters provide no support, rationale or data for their claim. EPA explained why we believe the contingency measures are sufficient in the proposed rule and the commenters have not substantively questioned EPA's rationale. Therefore, no further response is necessary.

Other commenters claim that the contingency measures will not result in demonstrative, verifiable and enforceable emission reductions. EPA interpreted sections 172 and 182 of the Act in the General Preamble (57 FR 13498, 13510) 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. The state must specify the type of contingency measures and the quantity of emissions reductions.

Quantifiable contingency measures are ones that are demonstrative and verifiable. An EPA-approved methodology can be used to calculate projected emissions reductions. The three VOC control measures in the contingency plan (Offset Lithographic Printing; Degassing or Cleaning of Stationary, Marine, and Transport Vessels; and Petroleum Dry Cleaning) rely upon long-established methodologies for calculation of their projected emissions reductions. *See* EPA's "Introduction to Area Source Emission Inventory Development" (Emission Inventory Improvement Program (EIIP), Volume III, January 2001). The EIIP was developed to estimate the effect of controls and acknowledges that regulatory programs are less than 100 percent effective for most source categories in most areas of the country. Specifically, Chapter 4 of the EIIP document describes the methodology for calculating an emission estimate for an area

source with regulations in place that affect any of the individual sources within the source category using three factors: control efficiency, rule effectiveness, and rule penetration. These factors are used to develop more accurate emissions estimates and are defined as follows:

- a) Control efficiency (CE) is the emission reduction efficiency, and is a percentage value representing the amount of a source category's emissions that are controlled. These numbers are often obtained from EPA's Control Technique Guidance documents.
- b) Rule effectiveness (RE) is an adjustment to account for failures and uncertainties that affect the actual performance of the control. A default value of 0.80 is recommended unless better information is available for a particular source category.
- c) Rule penetration (RP) is the percentage of the area source category that is covered by the applicable regulation or is expected to be complying with the regulation. The RP is calculated by taking the uncontrolled emissions covered by regulation and dividing by the total uncontrolled emissions. Default values are not feasible for RP because it is highly category- and location-dependent.

These three factors are multiplied together to estimate the Controlled Area source Emissions (CAE).¹⁴

For the DFW contingency measures plan, Texas estimated emissions for each source category using EPA's EIIP methodology. For Offset Lithographic Printing, the contingency measures plan applies to those sources with emissions below 50 tpy; for Degassing or Cleaning of Stationary, Marine, and Transport Vessels, the plan covers sources which are currently exempt from the State's VOC rules for degassing, including tanks smaller than 1 million gallons; and for Petroleum Dry Cleaning, the plan applies to sources using less than 2,000 gallons of solvent per

¹⁴ If an area source is controlled, emissions are calculated by the following equation: $CAE = UAE [1 - (CE) (RP) (RE)]$, where UAE = Uncontrolled Area Emissions estimate, and each of the other terms is defined above.

year. These three contingency measures address sources that have emissions lower than the exemptions in the State's existing VOC RACT rules approved today as meeting RACT for both the standards.

The fourth measure relied on is fleet turnover. Fleet turnover occurs each year - the model year composition of the local motor vehicle fleet changes as new vehicles are purchased and enter the fleet and old vehicles are scrapped. This results in a decrease in fleet average NOx and VOC emissions each year as older model year vehicles, certified to less stringent emission standards, leave the fleet and are replaced by newer vehicles certified to more stringent standards. The emission impacts of fleet turnover are calculated using EPA's MOBILE6.2 emission factor model. MOBILE6.2 calculates emission factors based on the standards that were in effect in each of the model years in the fleet and the relative fraction of each model year expected in the fleet in a specific calendar year. The relative fraction of each model year in the fleet is based on the local age distribution of the vehicle fleet, which is a specific input in MOBILE6.2 supplied by the state or local agency running the model, which in this SIP revision is the NCTCOG.

EPA requires that states use MOBILE6.2 to estimate motor vehicle emissions in a SIP or conformity determination. EPA also specifies in guidance what types of local inputs are appropriate for use in a SIP. For example, EPA does not allow a state or local agency to project that the motor vehicle fleet will be newer in the future than it currently is. In SIPs, EPA accepts projections of future emissions, including the benefits of fleet turnover, calculated using MOBILE6.2 using inputs that conform to our guidance. The NCTCOG used the State vehicle registration database from July 2005; this conforms to EPA's guidance, is the latest available information and provides a more accurate estimation of future emissions levels.

The three VOC measures have been approved into the SIP and therefore are enforceable by the EPA, the State and the public. The fleet turnover measure is a Federal rule and as such is enforceable by the EPA, the State and the public. Today's action makes the fleet turnover measure's projected SIP credits enforceable by the EPA and the public. The measures are surplus because they are not substitutes for mandatory, required emissions reductions and they are not being counted in any other control strategy.¹⁵ Finally, the measures are considered permanent because they continue for as long as the period in which they are used in the failure-to-attain contingency measures plan.

Comment: A commenter states that EPA may not approve contingency measures into the SIP that are already scheduled for implementation and are mandatory federal measures. Moreover, the attainment demonstration SIP relies upon these projected emissions reductions from fleet turnover. The emissions factors models used for projecting the future year's controlled emissions inventory include the improved tailpipe emission. The emissions reductions will occur passively and are not available "to be undertaken" in the likely event of a failure to attain. Accepting these as contingency measures violates the letter of the Act and the intended function of contingency measures – to step in when the SIP's primary control strategy fails. Texas may not rely on tailpipe emissions reductions as a contingency measure.

Response: EPA's position is that the Act allows mandatory federal measures that are already scheduled for implementation to be used as contingency measures, as long as their emission reductions are beyond those needed for attainment or to meet reasonable further progress. The following are some of EPA's actions on the 1-hour ozone SIPs, approving the use

¹⁵ EPA approved these three Chapter 115 measures into the DFW 1-hour ozone SIP as part of the failure-to-attain contingency measures plan. EPA never triggered them to be implemented upon a finding of failure to attain the 1-hour standard. They remain in the DFW SIP and now the State is relying upon them as part of the 8-hour ozone failure-to-attain contingency measures plan. They are not required to meet the VOC RACT requirement for either standard.

of mandatory federal measures as part of the contingency measures plan: 62 FR 15844, (April 3, 1997); 62 FR 66279, (December 18, 1997); 66 FR 30811 (June 8, 2001); 66 FR 586 and 66 FR 634, (January 3, 2001). In the preambles for the proposed and final Phase 2 Rule, we state that Federal measures that result in additional emission reductions beyond those needed for attainment or ROP in an area could serve as contingency measures for a failure to attain or meet the ROP requirements. (*See* Phase 2 Rule, proposed in 68 FR 32802 at 32837 (June 2, 2003), and final in 70 FR 71612 at 71651 (November 29, 2005)). Therefore, the State's inclusion of the Federal Motor Vehicle Control programs (FMVCP) occurring after the 2009 ozone season, is acceptable.

The Federal measure in the failure-to-attain contingency measures plan is the projected emissions reductions from the 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). Only the emissions reductions projected to occur after 2009 from the FMVCP are relied upon to meet the 3% of the emissions in the adjusted 1999 base year emissions inventory.

The modeling relies upon emissions reductions from the FMVCP that will become effective during the modeling period from 1999 to 2009. EPA disagrees that the attainment demonstration SIP relies upon the projected emissions reductions from fleet turnover occurring after 2009. Said another way, we disagree that the reductions from fleet turnover used as contingency measures were relied upon in the demonstration that the area would attain by 2009.

H. Comments on the Attainment Motor Vehicle Emission Budgets (MVEBs)

Comment: Commenters state that the MVEBs are flawed and are flawed for multiple reasons. In addition, in the absence of a competent attainment demonstration, the MVEBs are not approvable or adequate.

Response: EPA disagrees with the commenters that the MVEBs are flawed. The Commenters provided no data or rationale for their comments. This statement, without any further explanation does not give EPA any guidance on the alleged inadequacy nor how the commenter would have EPA improve upon it. EPA, however, refers the Commenters to our detailed response, below.

As discussed elsewhere, we believe that the plan provides for attainment of the ozone standard. For further explanation of how the attainment demonstration SIP provides for attainment, please see our responses in Section V-D above. Furthermore, we believe the budgets in the plan are consistent with the attainment plan and therefore should be approved.

Further, the budgets in the SIP were established consistent with the process in 40 CFR 93.118(e). Under 40 CFR 93.118, budgets cannot be used for conformity until EPA has either found the budgets “adequate” or approved the SIP in which they are contained. On June 28, 2007, the availability of the budgets was posted on EPA’s web site for public comment. The comment period closed on July 30, 2007, and we received no comments. On March 21, 2008, we published a Notice of Adequacy Determination for the attainment MVEBs (73 FR 15152) where we announced that we found the 2009 attainment MVEBs “adequate.” In that notice we stated that the attainment MVEBs must be used in future DFW transportation conformity determinations.

I. Voluntary Mobile Source Emission Reduction Programs (VMEP)

Comment: Commenters state that the Transportation Emission Reduction Measure (TERM) projects are inadequate.

Response: The comment letter provides no support, rationale or data for its claim that the TERM projects are inadequate. EPA explained its rationale for proposing approval of the VMEP program in the proposed rule and the commenter fails to identify any defect in EPA's analysis. Therefore, no further response is required.

Comment: A commenter states that EPA proposes to accept a series of capacity-increasing traffic projects as substitute control measures in the event that the VMEP NOx emissions are not achieved. The commenter states that the proposed TERMS involve roadway and highway capacity expansion to allow higher vehicle speeds in congested areas. The commenter further states that higher vehicle speeds result in increased NOx emissions and are counter productive to the stated purpose of supplying emissions reductions when VMEP reductions fail, and EPA should reject the TERM control measures' inclusion into the SIP.

Response: EPA finds that the State, through the North Central Texas Council of Governments (NCTCOG), has committed to and is responsible for emissions reductions measures that are permanent, quantifiable, surplus, adequately supported, consistent, enforceable and in accordance with the Act and EPA guidance. The state, through the NCTCOG, also commits to monitor, assess, report, and, in the event that the NOx reductions are not achieved, remedy any shortfall in emissions reductions.

It should be noted that EPA is not approving any TERMS, which would serve as the remedy to a shortfall of the VMEP at this time. The types of TERMS the state *may* use in the case of a shortfall are traffic signal improvements, Intelligent Transportation Systems (ITS), and/or freeway and/or arterial bottleneck removal. Because the State did not specifically identify

or commit to using these additional measures, we did not review them for approvability. In the event of a shortfall, EPA will review the additional measures provided by the State for inclusion into the SIP. If EPA finds, at that time, that the measures would cause an increase in NOx emissions, we would not find them suitable for use to make up for an emissions reduction shortfall.

Finally, the State must account for any such shortfall either by modifying implementation of the existing program to address the shortfall, adopting new measures, or revising the VMEP's emissions credits to reflect actual emissions reductions achieved, provided overall SIP commitments are met.¹⁶ Additions to the VMEP and changes to the VMEP credit in an effort to remedy any shortfall would be made in the form of a SIP revision. If TCMs are used to remedy the shortfall, a SIP revision may not be necessary.¹⁷

VI. Final Action

¹⁶ See Richard D. Wilson, Acting Assistant Administrator for Air and Radiation, dated October 24, 1997, entitled "*Guidance on Incorporating Voluntary Mobile Source Emission Reduction Programs in State Implementation Plans (SIPs).*"

¹⁷ The state may submit TCMs to EPA under CAA 176(c)(8). The provision states that TCMs that are specified in an approved implementation plan may be replaced in the plan with alternate TCMs if the substitute measures achieve equivalent or greater emissions reductions than the TCM to be replaced. The provision also allows new TCMs to be added to an approved SIP. In order to substitute TCMs the CAA requires that the substitute TCM provide equivalent emissions reductions as the TCM that is being replaced in the approved SIP. The CAA also requires that, if the time for implementing the substitute TCM has not passed, the substitute measures must be implemented in accordance with a schedule that is consistent with the schedule that provided for the control measures in the implementation plan. Substitute and additional TCMs must be accompanied by evidence of adequate personnel and funding and authority under state/local law to implement, monitor and enforce the control measure; the measures must be developed in a collaborative process that includes participation by representatives of all affected jurisdictions, state agency and state/local transportation agencies and consultation with the EPA; there must be reasonable public notice and opportunity to comment; and the metropolitan planning organization, State air pollution control agency and the EPA concur with the equivalency of the substitute TCMs and on the additional TCM. Concurrence by the above agencies is required by the CAA and once the substitute is adopted, the TCM becomes, by operation of law, a part of the SIP and federally enforceable. It should be noted that consultation with the EPA regional offices serves to fulfill the requirement for consultation with the EPA Administrator and concurrence on both TCM substitutions and additions has been delegated to the EPA Regional Administrators. (Delegation of Authority 7-158: Transportation Control Measure Substitutions and Additions).

EPA is conditionally approving the DFW 1997 8-hour ozone attainment demonstration SIP and its 2009 attainment MVEBs, RACM determination, and failure-to-attain contingency measures plan, submitted by the State of Texas on May 30, 2007 and November 7, 2008, as supplemented on April 23, 2008. EPA is fully approving two local control measures relied upon in the attainment demonstration, the VMEP and TCMs. We are also fully approving the DFW area SIP as meeting the RACT requirement for VOCs for the 1-hour ozone standard and the 1997 8-hour ozone standard. These revisions meet the requirements of the Act and EPA's regulations, and are consistent with EPA's guidance and policy. We are taking this action pursuant to section 110 and part D of the Act and EPA's regulations.

VII. 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 approves 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.

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA

will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by [FEDERAL REGISTER OFFICE: insert date 60 days from date of publication of this document in the Federal Register]. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects 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: December 17, 2008



Regional Administrator,
Region 6

40 CFR part 52 is amended as follows:

PART 52 - [AMENDED]

1. The authority citation for part 52 continues to read as follows:

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

Subpart SS — Texas

2. In Section 52.2270, the second table in paragraph (e) entitled “EPA Approved Nonregulatory Provisions and Quasi-Regulatory Measures in the Texas SIP” is amended by adding four new entries at the end.

The revisions and additions read as follows:

§ 52.2270 Identification of plan.

* * * * *

(e) * * *

* * * * *

EPA Approved Nonregulatory Provisions and Quasi-Regulatory Measures in the Texas SIP

Name of SIP provision	Applicable geographic or nonattainment area	State submittal/ effective date	EPA approval date	Comments
* * * * *				
Dallas-Fort Worth 1997 8-hour ozone Attainment Demonstration SIP and its 2009 attainment	Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall and Tarrant Counties, TX.	May 23, 2007 November 7, 2008	[Insert date of FR publication] [Insert FR page number where document begins]	Conditional Approval

Name of SIP provision	Applicable geographic or nonattainment area	State submittal/ effective date	EPA approval date	Comments
MVEBs, RACM demonstration, and Failure-to-Attain Contingency Measures Plan				
Transportation Control Measures	Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall and Tarrant Counties, TX.	May 23, 2007	[Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins]	
VMEP	Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall and Tarrant Counties, TX.	May 23, 2007	[Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins]	
VOC RACT finding for the 1-hour ozone NAAQS and the 1997 8-hour ozone NAAQS	Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall and Tarrant Counties, TX.	May 23, 2007	[Insert date of <u>FR</u> publication] [Insert <u>FR</u> page number where document begins]	