

**TECHNICAL SUPPORT DOCUMENT (TSD)**

**30 Texas Administrative Code (TAC) Chapter 117**

**Control of Air Pollution from Nitrogen Compounds**

The May 2007 State Implementation Plan (SIP) Submittal

(Rule Project No. 2006-034-117-EN)

## Chapter 1- Section by Section Review of Chapter 117:

### INTRODUCTION

This Technical Support Document (TSD) concerns review of the 30 Texas Administrative Code (TAC) Chapter 117 Control of Air Pollution from Nitrogen Compounds as submitted to EPA in a letter dated May 30, 2007 (May 30, 2007 SIP, or May 2007 SIP) , and received by the Air Planning Section in EPA Region 6 on June 19, 2007. This Rule Project No. 2006-034-117-EN reformats Chapter 117, and revises NOx Controls for the Dallas - Fort Worth (DFW) ozone nonattainment area, in addition to the revisions to certain sections of the Residential Water Heater Rules. With this submittal Texas is repealing the entire current Chapter 117, and simultaneously proposing a new reformatted Chapter 117. The rule project number 2006-034-117-EN includes the following rule revisions to the Texas State Implementation Plan (SIP):

“2006-017-117-EN: Residential Water Heaters;  
2006-012-117-EN: Dallas/Fort Worth NOx RACT;  
2006-006-117-EN: East Texas Combustion Sources;  
2006-005-117-EN: Dallas/Fort Worth Minor Sources; and  
2006-003-117-EN: Dallas/Fort Worth NOx Major Source & Utility Controls.”

Date Adopted: May 23, 2007

Date Filed with the Secretary of State: May 25, 2007

Date Published in the *Texas Register*: June 8, 2007

Date Effective: June 14, 2007 (at the State Level)

In this TSD we are *not* evaluating the 2006-004-117-EN: Dallas/Fort Worth Cement Kiln Rule revision. Consequently, we are not acting on §117.3100, §117.3101, §117.3103, §117.3110, §117.3120, §117.3123, §117.3125, §117.3140, §117.3142, and §117.3145, at this time. We will review and evaluate the cement kiln rule revision in a separate rulemaking action.

The TSD is composed of five Chapters (Chapters 1 through 5). Chapter 1 is a section by section review of the May 2007 submittal, and each review section is followed by a summary evaluation. Chapter 2 depicts the existing (prior to the State’s 2007 SIP adoption) sections of Chapter 117 versus the new (State revised) sections of Chapter 117. Chapter 3 contains the completed index listing of 30 TAC Chapter 117 Control of Air Pollution from Nitrogen Compounds as adopted by TCEQ in May 2007. Chapter 4 represents some key EPA comments on Chapter 117 and TCEQ response to those comments. Also see the section labeled “Evaluation” in Volume 4 of 5 of the 2007 Chapter 117 Texas SIP submittal, Rule Project No. 2006-034-117-EN. Chapter 5 contains some example Equations used to calculate NOx emissions averages and caps used through out Chapter 117. The TSD is further complemented by two reports concerning state wide water heaters rule.

Texas has requested that the following Chapter 117 sections not be a part of EPA-approved

Texas SIP:

- New sections: §§117.110(c), 117.125, 117.210(c), 117.225, 117.310(c), 117.325, 117.410(d), 117.425, 117.1010(b), 117.1025, 117.1110(b), 117.1125, 117.1210(b), 117.1225, 117.1310(b), 117.1325, 117.2010(i), 117.2025, 117.2110(h), 117.2125, 117.3010(e), 117.3025, 117.3123(f), 117.3125, 117.3310(e), and 117.3325.
- Sections 117.110(c), 117.125, 117.210(c), 117.225, 117.310(c), 117.325, 117.1010(b), 117.1025, 117.1110(b), 117.1125, 117.1210(b), 117.1225, 117.2010(i), 117.2025, 117.3010(e), and 117.3025 correspond to portions of the existing rule previously excluded from the EPA-approved Texas SIP. [For a complete list of comments received by the TCEQ concerning the DFW 8-hour ozone attainment plan see the [http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/2007\\_SIP\\_Comments/SIP\\_comments-12-13-07.pdf](http://www.tceq.state.tx.us/assets/public/implementation/air/sip/sipdocs/2007_SIP_Comments/SIP_comments-12-13-07.pdf) , UNIVERSAL RESOURCE LOCATOR dating 10 April 2007, a 58 MB file size, very large]

The following is a list of the sections of Chapter 117 proposed new rules and modifications. See Figure 1 of 30 TAC Chapter 117 at 31 Texas Register 10899, published December 29, 2006.

- Subchapter A: Definitions: 117.10(2), 117.10(14), 117.10(24), 117.10(29), 117.10(44), and 117.10(51)
- Subchapter B, Division 4, Dallas-Fort Worth Eight Hour Ozone Nonattainment Area Major Sources: 117.400 – 117.456  
Removal from Subchapter B, Division 2 after compliance date for Division 4: 117.200(b)
- Subchapter C, Division 4, Dallas-Fort Worth Eight Hour Ozone Nonattainment Area Utility Electric Generation Sources: 117.1300 – 117.1356  
Removal from Subchapter C, Division 2 after compliance date for Division 4: 117.1100(c)
- Subchapter D, Division 2, Dallas-Fort Worth Eight Hour Ozone Nonattainment Area Minor Sources: 117.2100 – 117.2145
- Subchapter E: Multi-Region Combustion Control, Division 4, East Texas Combustion: 117.3300 – 117.3345
- Subchapter H: Administrative Provisions, Division 1, Compliance Schedules: 117.9030, 117.9130, 117.9210, 117.9320, and 117.9340
- Subchapter E, Division 3, Water Heaters, Small Boilers, and Process Heaters (State-wide): 117.3205 [Repeal of 10 ng/J standard on Type 0 (residential) water heaters]

The following is a list of changes to existing Chapter 117 language that are minor in nature. Also see Figure 1 of 30 TAC Chapter 117 at 31 Texas Register 10900, published December 29, 2006.

- Add equation for oxygen correction of pollutant concentration: 117.10(35)
- Update utility boiler definition and utility electric generation rules applicability consistent with
- East and Central Texas utility rules: 117.10(52), 117.1000, 117.1100, and 117.1200
- Update emergency fuel oil exemption to

- include only appropriate reliability councils: 117.1003(c), 117.1103(c), and 117.1203(c)
- Include list of ammonia methods in test methods procedures: 117.8000(c)
- Allow major sources to petition ED for shorter test times: 117.8000(b)
- Change references of “upsets” to “emissions events.”: 117.123(k), 117.223(k), 117.323(k), 117.1020(k), 117.1120(k), and 117.1220(k)
- Clarify system cap equations to allow for adjustment period after startup: 117.320(c)
- Additional data substitution option for major sources subject to MECT: 117.340(c)
- Expand engine low use requirement from quarterly testing to BPA and DFW: 117.8140(b)
- Update references to 101.222 to be consistent with current 101.222: 117.145(a), 117.245(a), 117.345(a), 117.1045(a), 117.1145(a), 117.1245(a), and 117.3045(a)
- Clarify compliance schedule for industrial EGFs to submit level of activity information: 117.9020(2)(B)

## CHAPTER 117 CONTROL OF AIR POLLUTION FROM NITROGEN COMPOUNDS

### SUBCHAPTER A: DEFINITIONS

#### Section 117.10, Definitions

The new SIP adopts a new §117.10 that incorporates the definitions in the existing §117.10. The new SIP adds the definition of Dallas-Fort Worth eight-hour ozone nonattainment area to the definition of applicable ozone nonattainment area in §117.10(2)(C). The new definition for the Dallas-Fort Worth eight-hour ozone nonattainment area includes Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant Counties. This change and subsequent changes to other definitions in this section to include Dallas-Fort Worth eight-hour ozone nonattainment area are necessary because the new SIP is adopting new rules for the Dallas-Fort Worth eight-hour ozone nonattainment area. The new definition of Dallas-Fort Worth area expands from the original 4-core counties, and adds the additional 5 new counties of Ellis, Johnson, Kaufman, Parker, and Rockwall to the area. Although the number of counties has increased from 4 to 9, the original 4 counties still remain subject to Chapter 117 requirements.

The new SIP revises §117.10(14)(A), electric power generating system, to include systems that are owned or operated by an electric cooperative, municipality, river authority, public utility, or a PUC-regulated utility. This change more accurately reflects the definition of an electric power generating system and does not expand the definition.

The new SIP revises the definition of emergency situation in §117.10(15)(A)(ii) to update the references to the Electric Reliability Council of Texas (ERCOT) Protocols, to the most recent published version of the ERCOT Protocols, April 25, 2006.

- The adopted provisions are necessary for SIP approval thus should be given approval.

### SUBCHAPTER B: COMBUSTION CONTROL AT MAJOR INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL

## SOURCES IN OZONE NONATTAINMENT AREAS

### Section 117.100, Applicability

The new SIP adopts a new §117.100 that incorporates the rule language in the existing §117.201, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.100(1) – (3) incorporates the applicability rule language in existing §117.201(1) – (3).

- The adopted provisions are necessary for rule language consistency purposes thus should be given approval.

### Section 117.103, Exemptions

The new SIP adopts a new §117.103 that incorporates the exemption rule language in the existing §117.203 applicable to the Beaumont-Port Arthur ozone nonattainment area. The new SIP adopts a new §117.103(a)(1) – (7), relating to general exemptions, that incorporates the exemptions in the existing §117.203(a)(1) – (7). New §117.103(a)(8) incorporates the exemption in existing §117.203(a)(8)(B) and new §117.103(a)(9) and (10) incorporate the exemptions in existing §117.203(a)(10) and (13).

The new SIP adopts a new §117.103(b) and (c) to incorporate exemptions from existing §117.205 and §117.206. This change consolidates the applicable exemptions for the Beaumont-Port Arthur ozone nonattainment area under a single section.

The new SIP adopts a new equation in §117.105(b)(6) that incorporates the calculation for the NOX emission limit for gas-fired boilers and process heaters using hydrogen-rich fuel in the existing §117.205(b)(6). The new equation in §117.105(b)(6) is identical in content to the existing equation in §117.205(b)(6). The new equation in §117.105(b)(6) presents the equation in a format consistent with other figures and equations in Chapter 117 and provides a written description of all the terms used in the equation.

Finally, the new SIP adopts a new §117.110(d) that incorporates the rule language regarding compliance flexibility from the existing §117.206(f)(1) – (3).

- The adopted provisions provide clarity as to what sources are not subject to regulations thus should be given approval.

### Section 117.110, Emission Specifications for Attainment Demonstration

The New SIP adopts a new §117.110 that incorporates the rule language in existing §117.206, relating to emission specifications for attainment demonstrations, applicable to the Beaumont-Port Arthur ozone nonattainment area. The New SIP adopts a new §117.110(a) that incorporates the NOX emission specifications for the Beaumont-Port Arthur ozone nonattainment area in existing §117.206(a). The New SIP adopts a new §117.110(b), relating to NOX averaging time, that incorporates the rule language in the existing §117.206(d)(1). New §117.110(b)(1) incorporates the requirements in existing §117.206(d)(1)(A), and new §117.110(b)(2) incorporates the

requirements in existing §117.206(d)(1)(B). The New SIP adopts a new §117.110(c), concerning related emissions, that incorporates the rule language in existing §117.206(e). New §117.110(c)(1) and (2) incorporate the carbon monoxide (CO) and ammonia emissions specifications in the existing §117.206(e)(1) and (2). New §117.110(c)(3) incorporates the provisions regarding correction of CO emissions in existing §117.206(e)(3) and (3)(B). The New SIP also adopts a new §117.110(c)(4) that incorporates the rule language regarding applicability of the CO emission specifications from existing §117.206(e)(4) and (4)(A). Finally, the New SIP adopts a new §117.110(d) that incorporates the rule language regarding compliance flexibility from the existing §117.206(f)(1) – (3).

- The adopted provisions provide for additional NO<sub>x</sub> reductions or compliance flexibility to the rule. Thus should be given approval.
- Please be aware that per TCEQ's request 117.110 (c) will not become a part of EPA-approved Texas SIP revision.

#### Section 117.115, Alternative Plant-Wide Emission Specifications

The new SIP adopts a new §117.115 that incorporates the rule language in existing §117.207, relating to alternative plant-wide emission specifications, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.115(a) – (f) incorporates the rule language in the existing §117.207(a) – (f), relating to alternative plant-wide emission specifications, applicable to the Beaumont-Port Arthur ozone nonattainment area.

New §117.115(g) incorporates the rule language from existing §117.207(g). In addition, existing §117.207(g)(1) - (3) include required calculations written in paragraph form rather than in equation form. The new SIP is reformatting the calculations in a mathematical formula rather than the paragraph form to present the equations in a format consistent with other equations in Chapter 117 and provide a written description of all the terms used in the equation. The new formulas are identical in content to the existing required calculations in paragraph form. The new equation in §117.115(g)(1) incorporates the calculation for the allowable NO<sub>x</sub> emission rate for each affected boiler and process heater in the existing §117.207(g)(1). The new equation in §117.115(g)(2) incorporates the calculation for the allowable NO<sub>x</sub> emission rate for each affected stationary internal combustion engine in the existing §117.207(g)(2). The new SIP also adds new equations to §117.115(g)(3) that incorporate the calculation for the allowable NO<sub>x</sub> emission rate for each affected stationary gas turbine in the existing §117.207(g)(3). The new §117.115(g)(3) presents the equation for determining the plant-wide emission specification for stationary gas turbines from the required calculation in existing §117.207(g)(3). New §117.115(g)(3) also includes a new equation in §117.115(g)(3) that incorporates the existing equation for calculating the in-stack NO<sub>x</sub> concentration term used in calculating the plant-wide emission specification.

Finally, the new SIP adopts a new §117.115(h) that incorporates the rule language from existing §117.207(h), and a new §117.115(i) that incorporates the rule language from existing §117.207(i) and (i)(1).

- The adopted provisions provide consistency in calculating allowable NOx emissions rates among corresponding equations. Thus should be given approval.

#### Section 117.123, Source Cap

The New SIP adopts a new §117.123 that incorporates the rule language in existing §117.223, relating to source cap, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.123(a) – (k) incorporate the rule language in existing §117.223(a) – (k). In addition, the New SIP adopts new equations in §117.123(b) that incorporate the equations in existing §117.223(b) to present the equations in a format consistent with other equations in Chapter 117 and provide a written description of all the terms used in the equation. The new equations in §117.123(b) include only the information applicable to the Beaumont-Port Arthur ozone nonattainment area. The new equation in §117.123(b)(1) incorporates the equation for the rolling 30-day average emission cap in existing §117.223(b)(1). Following EPA comments, variable “i” used in the equation for §117.123(b)(1) has been revised to be a lowercase “i” throughout the equation and terms to be consistent. The New SIP adopts a new equation in §117.123(b)(2) that incorporates the equation for the maximum daily emission cap in existing §117.223(b)(2). For new §117.123(k), the New SIP replaces upset period with the language “emissions event, as defined in §101.1 of this title (relating to Definitions).” This change is necessary to update the rule to current terminology used in the New SIP.

- The adopted provisions provide for rule consistency concerning 30-day averaging emissions cap between 117.113 and 117.223. Thus should be given approval.

#### Section 117.125, Alternative Case Specific Specifications

The New SIP adopts a new §117.125 that incorporates the rule language in existing §117.221, relating to alternative case specific specifications, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.125(a) and (b) incorporate the rule language in existing §117.221(a) and (b). In addition, new §117.125(a) omits the existing §117.221(a)(4) because the Engineering Services Team no longer exists within the TCEQ.

- The adopted provisions provide for rule consistency concerning Alternative Case Specific Specifications between 117.125 and 117.221.
- Please be aware that per TCEQ’s request 117.125 will not become a part of EPA-approved Texas SIP revision.

#### Section 117.130, Operating Requirements

The New SIP adopts a new §117.130 that incorporates the rule language in existing §117.208, relating to operating requirements, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.130(a) – (d) incorporate the rule language in existing §117.208(a) – (d). In addition, the New SIP is concurrently adopting a new §117.8140(b) that incorporates the engine

testing requirements in the existing §117.208(d)(7). Therefore, the engine testing requirements in existing §117.208(d)(7) have been omitted from the new §117.130(d)(7) and replaced with a reference to the new §117.8140(b).

- The adopted provisions provide for rule consistency concerning Operating Requirements among 117.130, 117.208 and 117.8140 thus should be given approval

#### Section 117.135, Initial Demonstration of Compliance

The New SIP adopts a new §117.135 that incorporates the rule language in existing §117.211, relating to initial demonstration of compliance, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.135(a) – (d) incorporate the rule language in existing §117.211(a) – (d). The New SIP is concurrently adopting a new §117.8000 that incorporates the requirements in the existing §117.211(e). Therefore, the New SIP adopts a new §117.135(e) that replaces specific requirements from existing §117.211(e) with a reference to the new §117.8000. New §117.8000 includes a requirement that specifies the methods required for ammonia testing during the initial demonstration of compliance. New §117.135(f) incorporates the rule language from existing §117.211(f), regarding initial demonstration of compliance for units operating with continuous emissions monitoring systems (CEMS) or predictive emissions monitoring systems (PEMS). Finally, the New SIP is concurrently adopting a new §117.8010 that incorporates the report content requirements in the existing §117.211(g). Therefore, new §117.135(g) omits the compliance stack reports content requirements and references new §117.8010.

- The adopted provisions provide for enforceability of the rule thus should be given approval

#### Section 117.140, Continuous Demonstration of Compliance

The New SIP adopts a new §117.140 that incorporates the rule language in the existing §117.213, relating to continuous demonstration of compliance, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.140(a) incorporates the totalizing fuel flow meter requirements and alternative provisions from existing §117.213(a), (a)(1)(A), and (a)(2). New §117.140(b) incorporates the rule language from existing §117.213(b) concerning O<sub>2</sub> monitors. In addition, existing §117.213(b)(1)(B)(i) requires O<sub>2</sub> monitors on process heaters greater than or equal to 100 MMBtu/hr, and clause (ii) requires O<sub>2</sub> monitors on process heaters greater than or equal to 200 MMBtu/hr except as provided in §117.213(f). Because existing §117.213(b)(1)(B)(i) and (ii) are overlapping requirements, the new §117.140(b)(1)(B) incorporates both existing §117.213(b)(1)(B)(i) and (ii) into a single requirement for O<sub>2</sub> monitors on process heaters greater than or equal to 100 MMBtu/hr, except as provided in subsection (f).

The New SIP adopts a new §117.140(c) incorporating the rule language from existing §117.213(c), regarding requirements for NO<sub>x</sub> monitors, applicable to the Beaumont-Port Arthur ozone nonattainment area. In addition, the §117.113(f) reference in existing §117.213(c)(3)(C)(ii) is revised in new §117.140(c)(3)(C)(ii) to reference new §117.8110(b) because the applicable provisions in §117.113(f) are incorporated in new §117.8110.



The New SIP adopts a new §117.140(e), concerning requirements for CEMS. The New SIP is concurrently adopting a new §117.8100(a) that incorporates the general requirements for CEMS in the existing §117.213(e)(1) - (3), (5), and (6). Existing §117.213(e)(4) is a region-specific requirement applicable only in the Houston-Galveston-Brazoria ozone nonattainment area. Therefore, new §117.140(e) omits existing §117.213(e)(1) – (6) and references new §117.8100(a).

The New SIP adopts a new §117.140(f), concerning requirements for PEMS. New §117.140(f)(1) incorporates rule language from existing §117.213(f)(1). The New SIP is concurrently adopting a new §117.8100(b) that incorporates the general requirements for PEMS in the existing §117.213(f)(2) - (7). Therefore, new §117.140(f) omits existing §117.213(f)(2) – (7) and new §117.140(f)(2) references new §117.8100(b).

The New SIP adopts a new §117.140(g) concerning testing requirements for stationary gas engines. The New SIP is concurrently adopting a new §117.8140(a) that incorporates the engine testing requirements in existing §117.213(g)(1). Therefore, new §117.140(g) omits existing §117.213(g)(1) and references new §117.8140(a). In addition, existing §117.213(g)(2) requires that engines that use a chemical reagent for reduction of NOX must be monitored for NOX in accordance with existing §117.213(c)(1)(E) and must comply with applicable requirements for CEMS and PEMS. Existing §117.213(c)(1)(E) and new §117.140(c)(1)(E) require that the owner or operator of any unit that uses a chemical reagent for NOX control install, calibrate, maintain, and operate a CEMS or PEMS to monitor NOX. Also, the applicable requirements for CEMS or PEMS in existing §117.213(e) or (f), or new §117.140(e) or (f) automatically apply to any CEMS or PEMS required by the section. Therefore, because the existing §117.213(g)(2) is redundant, the New SIP is not incorporating the rule language in existing §117.213(g)(2) into new §117.140(g).

- The adopted provisions provide for means, through use of CEMS and PEMS for monitoring, of enforceability of the rule. Thus should be given approval.

#### Section 117.145, Notification, Recordkeeping, and Reporting Requirements

The New SIP adopts new §117.145 that incorporates the rule language in existing §117.219, concerning notification, recordkeeping, and reporting. New §117.145(a) - (f) incorporate the rule language from existing §117.219(a) – (f) requirements applicable to the Beaumont-Port Arthur ozone nonattainment area. The reference to exemptions is not applicable to 30 TAC §101.222 and the change is necessary to clarify new §117.145(a).

- The adopted provisions provide for means of notification, recordkeeping, and reporting in the rule, thus should be given approval.

#### Section 117.150, Initial Control Plan Procedures

The New SIP adopts new §117.150 that incorporates the rule language in existing §117.209,

concerning initial control plan procedures applicable to the Beaumont-Port Arthur ozone nonattainment area.

- The adopted provisions provide for the process of enforceability of the rule, thus should be given approval

#### Section 117.152, Final Control Plan Procedures for Reasonably Available Control Technology

The New SIP adopts a new §117.152 that incorporates the requirements in the existing §117.215, relating to final control plan procedures for RACT, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.152(a) – (c) incorporates the provisions in the existing §117.215(a) - (c). New §117.152(a)(2)(A) and (B) incorporate the rule language from existing §117.215(a)(2)(A) and (B). New §117.152(a)(2)(C) incorporates the rule language from existing §117.215(a)(2)(D), and new §117.152(a)(2)(D) incorporates the rule language from existing §117.215(a)(2)(C). New §117.152(a)(2)(E) incorporates the rule language from existing §117.215(a)(2)(E). In addition, for new §117.152(a)(6)(B), concerning the information required in the final control plan for gas turbines with a megawatt (MW) rating less than 10 MW, the New SIP is changing the word “ten” to the numeral “10.0” because this is the appropriate exemption MW rating from existing §117.205(h)(7) and new §117.103(b)(6).

New §117.152 does not include existing §117.215(d), concerning the requirement to submit the control plan electronically and on hard copy using forms provided by the executive director. Existing §117.215 and new §117.152 specify the content requirements for the control plans. Therefore, a mandatory format for the control plan information is not necessary. Finally, new §117.152(d) incorporates rule language in existing §117.215(e).

- The adopted provisions provide for the process of applying RACT for NOx emissions reduction in the rule thus should be given approval

#### Section 117.154, Final Control Plan Procedures for Attainment Demonstration Emission Specifications

The New SIP adopts a new §117.154 that incorporates the rule language in existing §117.216, relating to final control plan procedures for attainment demonstration emission specifications, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.154(a) incorporates the rule language in existing §117.216(a). New §117.154(a)(1)(A) consists of the provisions in existing §117.216(a)(1)(A). New §117.154(a)(1)(B) consists of the provisions in existing §117.216(a)(1)(D). New §117.154(a)(1)(C) and (D) consist of the provisions in existing §117.216(a)(1)(B) and (C), respectively. The New SIP adopts a new §117.154(a)(2) – (5) that incorporate the rule language from existing §117.216(a)(2) – (5). The New SIP also adopts a new §117.154(b) and (c) that incorporate the rule language in existing §117.216(b) and (c), respectively. In addition, new §117.154(b)(2)(A) and (B) exclude the references to new §117.123(k) or (l) because there is no heat input information specified in these subsections in either the existing §117.223 or new §117.123.

- The adopted provisions provide for the process of applying additional NOx emissions

reduction in the rule thus should be given approval

#### Section 117.156, Revision of Final Control Plan

The New SIP adopts a new §117.156 that incorporates the rule language in existing §117.217, concerning revisions of final control plans.

- The adopted provisions allow for modification of the final control plan thus incorporating operational flexibility in the rule. Thus should be given approval.

#### Section 117.200, Applicability

The New SIP adopts a new §117.200 that incorporates the applicability rule language in existing §117.201 applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.200(a) incorporates the applicability rule language in existing §117.201(1) – (3). In addition, the New SIP adopts a new §117.200(b) specifying that Chapter 117, Subchapter B, Division 2 will no longer apply to any units that are subject to the emission specifications in new §117.410 and located at any major stationary source of NOX within Collin, Dallas, Denton, and Tarrant Counties after the compliance dates in new §117.9030. The emissions specifications in §117.410 and all other associated requirements in the new Subchapter B, Division 4, Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Major Sources, will supersede the requirements of Subchapter B, Division 2. Therefore, the New SIP adopts new §117.200(b) to avoid overlapping requirements from the two separate divisions.

- The adopted provisions are necessary for clarity and consistency purposes. Thus should be given approval.

#### Section 117.203, Exemptions

The New SIP adopts a new §117.203, relating to general exemptions, that incorporates the exemptions in the existing §117.203 applicable to the Dallas-Fort Worth ozone nonattainment area. The New SIP adopts a new §117.203(a), relating to general exemptions, that incorporates the exemptions in the existing §117.203(a). New §117.203(a)(1) – (7) incorporate the rule language in existing §117.203(a)(1) – (7). New §117.203(a)(8) incorporates the exemption in existing §117.203(a)(8)(B). New §117.203(a)(9) incorporates the exemption in existing §117.203(a)(10). The New SIP adopts a new §117.203(b) and (c) to incorporate exemptions from existing §117.205 and §117.206. This change consolidates the applicable exemptions for the Dallas-Fort Worth ozone nonattainment area under a single section. New §117.203(b)(1) – (9) incorporates the exemptions in the existing §117.205(h)(1) – (9), concerning exemptions for RACT, applicable to the Dallas-Fort Worth ozone nonattainment area. The New SIP adopts a new §117.203(b)(10) consisting of the provisions in the existing §117.205(h)(10)(B). The New SIP adopts a new §117.203(c), relating to attainment demonstration exemptions, that incorporates the exemptions in existing §117.206(g)(2) applicable to the Dallas-Fort Worth ozone nonattainment area. The exemption in existing §117.206(g)(1), for boilers or process heaters with a maximum rated capacity less than 40 MMBtu/hr, is redundant because the general exemption in

new §117.203(a)(2) is identical.

- The adopted provisions provide clarity as to what sources are not subject to regulations. Thus should be given approval.

#### Section 117.205, Emission Specifications for Reasonably Available Control Technology (RACT)

The New SIP adopts a new §117.205 that incorporates rule language in existing §117.205, relating to emission specifications for RACT, applicable to the Dallas-Fort Worth ozone nonattainment area. The New SIP adopts a new §117.205(a) – (c) consisting of the provisions in the existing §117.205(a) – (c). In addition, the language regarding initial control plans in existing §117.205(a)(1)(B) is omitted in the new §117.205(a)(1)(B) because the requirement for initial control plans was not applicable in the Dallas-Fort Worth ozone nonattainment area.

Also, the New SIP adopts a new equation in §117.205(b)(6) that incorporates the calculation for the NO<sub>x</sub> emission limit for gas-fired boilers and process heaters using hydrogen-rich fuel in the existing §117.205(b)(6). The new equation in §117.205(b)(6) is identical in content to the existing equation in existing §117.205(b)(6). The new §117.205(b)(6) presents the equation in a format consistent with other figures in Chapter 117 and provides a written description of all the terms used in the equation.

The New SIP adopts a new §117.205(d) consisting of the rule language in existing §117.205(d) and (d)(2). New §117.205(e) and (f) incorporate the rule language in existing §117.205(f) and (g). As previously indicated in this preamble, the exemptions in existing §117.205(h) applicable to the Dallas-Fort Worth ozone nonattainment area are incorporated in new §117.203(b).

- The adopted provisions provide for applying RACT for NO<sub>x</sub> emissions reduction within the DFW area in the rule thus should be given approval

#### Section 117.210, Emission Specifications for Attainment Demonstration

The New SIP adopts a new §117.210 that incorporates the rule language in the existing §117.206, relating to emission specifications for attainment demonstration, applicable to the Dallas-Fort Worth ozone nonattainment area. The New SIP adopts a new §117.210(a), relating to NO<sub>x</sub> emission specifications, that incorporates the specifications in existing §117.206(b). New §117.210(a)(1) and (2) incorporate the emission specifications from existing §117.206(b)(1) and (2). The emission specifications for stationary gas-fired internal combustion engines in existing §117.206(b)(3) are incorporated in new Subchapter B, Division 4, §117.410(a). These emission specifications are applicable to the nine-county Dallas-Fort Worth eight-hour ozone nonattainment area as a part of the New SIP's IOP demonstration for the Dallas-Fort Worth eight-hour ozone nonattainment area. Because the emission specifications in existing §117.206(b)(3) apply to the Dallas-Fort Worth eight-hour ozone nonattainment area, new Subchapter B, Division 4 is the most appropriate location for the emission specifications.

The New SIP adopts a new §117.210(b), relating to NO<sub>x</sub> averaging time, that incorporates the rule language in existing §117.206(d)(1). New §117.210(b)(1) incorporates the requirements in

existing §117.206(d)(1)(A), and new §117.210(b)(2) incorporates the requirements in existing §117.206(d)(1)(B). The New SIP adopts a new §117.210(c), concerning related emissions, that incorporates the rule language in existing §117.206(e). New §117.210(c)(1) and (2) incorporate the CO and ammonia emissions specifications in the existing §117.206(e)(1) and (2). New §117.210(c)(3) incorporates the provisions regarding correction of CO emissions in existing §117.206(e)(3) and (3)(B). The New SIP also adopts a new §117.210(c)(4) that incorporates the rule language regarding applicability of the CO emission specifications from existing §117.206(e)(4) and (4)(A). Finally, the New SIP adopts a new §117.210(d) that incorporates the rule language regarding compliance flexibility from the existing §117.206(f)(1) – (3). As previously indicated in this preamble, the exemptions in existing §117.206(g) applicable to the Dallas-Fort Worth ozone nonattainment area are incorporated in new §117.203(c).

- The adopted provisions provide for the additional NO<sub>x</sub> emissions reductions plus operational flexibility within the DFW area in the rule. Thus should be given approval.
- Please be aware that per TCEQ's request 117.210(c) will not become a part of EPA-approved Texas SIP revision.

#### Section 117.215, Alternative Plant-Wide Emission Specifications

The New SIP adopts a new §117.215 that incorporates the rule language in existing §117.207, relating to alternative plant-wide emission specifications, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.215(a) – (f) incorporate the rule language in existing §117.207(a) – (f). New §117.215(g) incorporates the rule language from existing §117.207(g). In addition, existing §117.207(g)(1) - (3) include required calculations written in paragraph form rather than in equation form. The New SIP is reformatting the calculations in a mathematical formula rather than paragraph form to present the equations in a format consistent with other equations in Chapter 117 and provide a written description of all the terms used in the equation. The new formulas are identical in content to the existing required calculations in paragraph form. The new equation in §117.215(g)(1) incorporates the calculation for the allowable NO<sub>x</sub> emission rate for each affected boiler and process heater in the existing §117.207(g)(1). The new equation in §117.215(g)(2) incorporates the calculation for the allowable NO<sub>x</sub> emission rate for each affected stationary internal combustion engine in the existing §117.207(g)(2). The New SIP also adds new equations to §117.215(g)(3) that incorporate the calculation for the allowable NO<sub>x</sub> emission rate for each affected stationary gas turbine in the existing §117.207(g)(3). The new §117.215(g)(3) presents the equation for determining the plant-wide emission specification for stationary gas turbines from the required calculation in existing §117.207(g)(3). New §117.215(g)(3) also includes a new equation in §117.215(g)(3) that incorporates the existing equation for calculating the in-stack NO<sub>x</sub> concentration term used in calculating the plant-wide emission specification. Finally, the New SIP adopts a new §117.215(h) that incorporates the rule language from existing §117.207(h), and a new §117.215(i) that incorporates the rule language from existing §117.207(i) and (i)(2).

- The adopted provisions provide for operational flexibility to the participating source in the rule thus should be given approval.

## Section 117.223, Source Cap

The New SIP adopts a new §117.223 that incorporates the rule language in the existing §117.223, relating to source cap, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.223(a) – (k) incorporate the rule language in existing §117.223(a) – (k). In addition, the New SIP adopts new equations in new §117.223(b) that incorporate the equations in existing §117.223(b) to present the equations in a format consistent with other equations in Chapter 117 and provide a written description of all the terms used in the equation. The new equations in §117.223 include only the information applicable to the Dallas-Fort Worth ozone nonattainment area. The new equation in §117.223(b)(1) incorporates the equation for the rolling 30-day average emission cap in the existing §117.223(b)(1). Per EPA comments, variable “i” used in the equations for new §117.223(b)(1) and (2) has been revised to be a lowercase “i” throughout the equations and terms to be consistent. The new equation in §117.223(b)(2) incorporates the equation for the rolling 30-day average NOX emission cap in the existing §117.223(b)(2). In addition, the New SIP revises the language regarding initial control plans in new §117.223(i) and (j). As discussed later in this preamble, the New SIP is not adopting a section for the Dallas-Fort Worth ozone nonattainment area that includes the requirements for initial control plans from existing §117.209. Therefore, the New SIP changes the language in the new §117.223(i) and (j) to reference final control plans for RACT instead of initial control plans. Finally, for new §117.223(k), the New SIP replaces upset period with the language “emissions event, as defined in §101.1 of this title (relating to Definitions).” This change is necessary to update the rule to current terminology used by the New SIP.

- The adopted provisions provide for operational flexibility to the participating source in the rule thus should be given approval

## Section 117.225, Alternative Case Specific Specifications

The New SIP adopts a new §117.225 that incorporates the rule language in the existing §117.221, relating to alternative case specific specifications, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.225(a) and (b) incorporate the rule language in the existing §117.221(a) and (b). In addition, new §117.225(a) omits the existing §117.221(a)(4) because the Engineering Services Team no longer exists within the TCEQ.

- The adopted provisions provide for alternate emissions limitations or operational flexibility to a source as circumstances may warrant in the rule.
- Please be aware that per TCEQ’s request 117.225 will not become a part of EPA-approved Texas SIP revision.

## Section 117.230, Operating Requirements

The New SIP adopts a new §117.230 that incorporates the rule language in existing §117.208,

relating to operating requirements, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.230(a) – (d) incorporate the rule language in existing §117.208(a) – (d). In addition, the New SIP is concurrently adopting a new §117.8140(b) that incorporates the engine testing requirements in existing §117.208(d)(7). Therefore, the engine testing requirements in existing §117.208(d)(7) have been omitted from new §117.230(d)(7) and replaced with a reference to new §117.8140(b).

- The adopted provisions provide for rule consistency concerning Operating Requirements among 117.230, 117.208 and 117.8140 thus should be given approval

#### Section 117.235, Initial Demonstration of Compliance

The New SIP adopts a new §117.235 that incorporates the rule language in existing §117.211, relating to initial demonstration of compliance, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.235(a) – (d) incorporate the rule language in existing §117.211(a) – (d). The New SIP is concurrently adopting a new §117.8000 that incorporates the requirements in the existing §117.211(e). Therefore, the New SIP adopts a new §117.235(e) that replaces specific requirements from existing §117.211(e) with a reference to new §117.8000. New §117.8000 includes a requirement that specifies the methods required for ammonia testing during the initial demonstration of compliance. Specific discussion related to this change is included in the section-by-section discussion associated with new §117.8000.

New §117.235(f) incorporates the rule language from existing §117.211(f), regarding initial demonstration of compliance for units operating with CEMS or PEMS. Finally, the New SIP is concurrently adopting a new §117.8010 that incorporates the report content requirements in the existing §117.211(g). Therefore, the new §117.235(g) omits the compliance stack reports content requirements and references new §117.8010.

- The adopted provisions provide for enforceability of the rule thus should be given approval

#### Section 117.240, Continuous Demonstration of Compliance.

The New SIP adopts a new §117.240 that incorporates the rule language in existing §117.213, relating to continuous demonstration of compliance, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.240(a) incorporates the totalizing fuel flow meter requirements and alternative provisions from existing §117.213(a), (a)(1)(A), and (a)(2). New §117.240(b) incorporates the rule language from existing §117.213(b) concerning O<sub>2</sub> monitors. In addition, existing §117.213(b)(1)(B)(i) requires O<sub>2</sub> monitors on process heaters greater than or equal to 100 MMBtu/hr, and clause (ii) requires O<sub>2</sub> monitors on process heaters greater than or equal to 200 MMBtu/hr except as provided in §117.213(f). Because existing §117.213(b)(1)(B)(i) and (ii) are overlapping requirements, the new §117.240(b)(1)(B) incorporates both existing §117.213(b)(1)(B)(i) and (ii) into a single requirement for O<sub>2</sub> monitors on process heaters greater than or equal to 100 MMBtu/hr, except as provided in subsection (f). The New SIP adopts a new §117.240(c) incorporating the rule language from existing §117.213(c), regarding requirements for NO<sub>x</sub> monitors, applicable to the Dallas-Fort Worth ozone nonattainment area.

In addition, the reference in existing §117.213(c)(3)(C)(ii) to §117.113(f) is revised in new §117.240(c)(3)(C)(ii) to reference new §117.8110(b) because the applicable provision in §117.113(f) is incorporated in new §117.8110. The New SIP adopts a new §117.240(d), concerning CO monitoring requirements. The New SIP is concurrently adopting a new §117.8120 that incorporates the CO monitoring methods in the existing §117.213(d)(1) – (4). Therefore, the new §117.240(d) omits the existing CO monitoring methods specified in §117.213(d)(1) – (4) and references new §117.8120.

The New SIP adopts a new §117.240(e), concerning requirements for CEMS. The New SIP is concurrently adopting a new §117.8100(a) that incorporates the general requirements for CEMS in the existing §117.213(e)(1) - (3), (5), and (6). Existing §117.213(e)(4) is a region-specific requirement applicable only in the Houston-Galveston-Brazoria ozone nonattainment area. Therefore, the new §117.240(e) omits existing §117.213(e)(1) – (6) and references new §117.8100(a). The New SIP adopts a new §117.240(f), concerning requirements for PEMS. New §117.240(f)(1) incorporates rule language from existing §117.213(f)(1). The New SIP is concurrently adopting a new §117.8100(b) that incorporates the general requirements for PEMS in the existing §117.213(f)(2) - (7). Therefore, the new §117.240(f) omits existing §117.213(f)(2) – (7) and new §117.240(f)(2) references new §117.8100(b).

The New SIP adopts a new §117.240(g) concerning testing requirements for stationary gas engines. The New SIP is concurrently adopting a new §117.8140(a) that incorporates the engine testing requirements in existing §117.213(g)(1). Therefore, the new §117.240(g) omits existing §117.213(g)(1) and references new §117.8140(a). In addition, existing §117.213(g)(2) requires that engines that use a chemical reagent for reduction of NOX must be monitored for NOX in accordance with existing §117.213(c)(1)(E) and must comply with applicable requirements for CEMS and PEMS. Existing §117.213(c)(1)(E) and new §117.240(c)(1)(E) require that the owner or operator of any unit that uses a chemical reagent for NOX control install, calibrate, maintain, and operate a CEMS or PEMS to monitor NOX. Also, the applicable requirements for CEMS or PEMS in existing §117.213(e) or (f), or new §117.240(e) or (f) automatically apply to any CEMS or PEMS required by the section. Therefore, because the existing §117.213(g)(2) is redundant, the New SIP is not incorporating §117.213(g)(2) into the new §117.240(g). Finally, the New SIP adopts new §117.240(h) – (m) that incorporate the rule language from existing §117.213(h) – (m) applicable to the Dallas-Fort Worth ozone nonattainment area.

- The adopted provisions provide for means, through use of CEMS and PEMS for monitoring, of enforceability of the rule. Thus should be given approval.

#### Section 117.245, Notification, Recordkeeping, and Reporting Requirements

The New SIP adopts a new §117.245 that incorporates the rule language in the existing §117.219, relating to notification, recordkeeping, and reporting requirements. New §117.245(a) - (f) incorporate the rule language from existing §117.219(a) – (f) requirements applicable to the Dallas-Fort Worth ozone nonattainment area. The reference to exemptions is not applicable to §101.222 and the change is necessary to clarify new §117.245(a).



- The adopted provisions provide for means of notification, recordkeeping, and reporting . Thus should be given approval.

#### Section 117.252, Final Control Plan Procedures for Reasonably Available Control Technology

The New SIP adopts a new §117.252 that incorporates the rule language in the existing §117.215, relating to final control plan procedures for RACT, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.252(a) – (c) incorporates the provisions in the existing §117.215(a) - (c). New §117.252(a)(2)(A) and (B) incorporate the rule language from existing §117.215(a)(2)(A) and (B). New §117.252(a)(2)(C) incorporates the rule language from existing §117.215(a)(2)(D), and new §117.252(a)(2)(D) incorporates the rule language from existing §117.215(a)(2)(C). New §117.252(a)(2)(E) incorporates the rule language from existing §117.215(a)(2)(E). In addition, for new §117.252(a)(6)(B), concerning the information required in the final control plan for gas turbines with a MW rating less than 10 MW, the New SIP is changing the word “ten” to the numeral “10.0” because this is the appropriate exemption MW rating from existing §117.205(h)(7) and new §117.203(b)(7). As discussed elsewhere in this preamble, the use of the numeral “10.0” will ensure consistent enforcement of the rule. New §117.252 does not include existing 117.215(d), concerning the requirement to submit the control plan electronically and on hard copy using forms provided by the executive director. Existing §117.215 and new §117.252 specify the content requirements for the control plans. Therefore, a mandatory format for the control plan information is not necessary. New §117.252(d) incorporates the rule language in existing §117.215(e). In addition, the New SIP is not adopting a section corresponding to the existing §117.209, concerning initial control plan procedures for RACT, for the new Subchapter B, Division 2, Dallas-Fort Worth Ozone Nonattainment Area Major Sources. The requirement in §117.209 to submit an initial control plan was applicable only to the Beaumont-Port Arthur and Houston-Galveston-Brazoria ozone nonattainment areas.

- The adopted provisions provide for the process of enforceability of the RACT requirements in the rule thus should be given approval

#### Section 117.254, Final Control Plan Procedures for Attainment Demonstration Emission Specifications

The New SIP adopts a new §117.254 that incorporates the rule language in existing §117.216, relating to final control plan procedures for attainment demonstration emission specifications, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.254(a) incorporates the rule language in existing §117.216(a). New §117.254(a)(1)(A) consists of the provisions in existing §117.216(a)(1)(A). New §117.254(a)(1)(B) consists of the provisions in existing §117.216(a)(1)(D). New §117.254(a)(1)(C) and (D) consist of the provisions in existing §117.216(a)(1)(B) and (C), respectively. The New SIP adopts new §117.254(a)(2) – (5) that incorporate the rule language from existing §117.216(a)(2) – (5). New §117.254(b) and (c) incorporate the rule language in existing §117.216(b) and (c), relating to final control plan procedures for attainment demonstration emission specifications, applicable to the Dallas-Fort Worth ozone nonattainment area. In addition, new §117.254(b)(2)(A) and

(B) exclude the references to new §117.223(k) or (l) because there is no heat input information specified in these subsections in either the existing §117.223 or new §117.223.

- The adopted provisions provide for the process of applying additional NOx emissions reduction within DFW area in the rule thus should be given approval

#### Section 117.256, Revision of Final Control Plan

The New SIP adopts a new §117.256 that incorporates the rule language in existing §117.217, concerning revisions of final control plans.

- The adopted provisions provide for operational flexibility to a participating source by modification its final plan . Thus should be given approval.

#### Section 117.300, Applicability

The New SIP adopts a new §117.300 that incorporates the applicability rule language in the existing §117.201 applicable to the Houston-Galveston-Brazoria ozone nonattainment area.

- The adopted provisions are necessary for clarity and consistency purposes. Thus should be given approval.

#### Section 117.303, Exemptions

The New SIP adopts a new §117.303 that incorporates the exemptions in the existing §117.203 and §117.205 applicable to the Houston-Galveston-Brazoria ozone nonattainment area. The new §117.303 consolidates the exemptions applicable to the Houston-Galveston-Brazoria ozone nonattainment area under a single section. New §117.303(a), concerning general exemptions, incorporates exemptions in existing §117.203(a)(1) – (9), (11), and (12). In addition, the provision in existing §117.203(b), regarding revocation of exemptions in existing §117.203(a)(1), (2), (7), and (8), is merged with the applicable exemptions for clarity. New §117.303(a)(1) incorporates the exemption in the existing §117.203(a)(1) and the revocation of exemption language from §117.203(b). New §117.303(a)(2) incorporates the exemptions in the existing §117.203(a)(2) and the revocation of exemption language from §117.203(b). New §117.303(a)(3) – (6) incorporate the exemptions in the existing §117.203(a)(3)-(6). The New SIP adopts a new §117.303(a)(7) that incorporates the exemption in the existing §117.203(a)(7) and the revocation of exemption language from §117.203(b). New §117.303(a)(8) incorporates the exemptions in the existing §117.203(a)(8)(A) and the revocation of exemption language from §117.203(b). New §117.303(a)(9) incorporates the exemptions in existing §117.203(a)(9). New §117.303(a)(10) and (11) incorporate the exemptions in the existing §117.203(a)(11) and (12), respectively. Finally, the New SIP adopts new §117.303(b)(1) – (10) that incorporate the exemptions associated with RACT in the existing §117.205(h)(1) – (10)(A).

- The adopted provisions provide clarity as to what sources are not subject to regulations. Thus should be given approval.

## Section 117.305, Emission Specifications for Reasonably Available Control Technology (RACT)

The New SIP adopts a new §117.305 that incorporates the specifications in the existing §117.205, relating to emission specifications for RACT, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. The New SIP adopts a new §117.305(a) – (c) consisting of the provisions in the existing §117.205(a) – (c). In addition, the New SIP adopts a new equation in §117.305(b)(6) that incorporates the calculation for the NOX emission limit for gas-fired boilers and process heaters using hydrogen-rich fuel in the existing §117.205(b)(6). The new equation in §117.305(b)(6) is identical in content to the existing equation in existing §117.205(b)(6). The new §117.305(b)(6) presents the equation in a format consistent with other figures in Chapter 117 and provides a written description of all the terms used in the equation. The New SIP adopts a new §117.305(d) consisting of the rule language in the existing §117.205(d) and (d)(1). New §117.305(e) and (f) incorporate the rule language in existing §117.205(f) and (g). New §117.305(g) incorporates the rule language in existing §117.205(i) and (i)(2).

- The adopted provisions provide for applying RACT for NOx emissions reduction within the Houston-Galveston-Brazoria area in the rule thus should be given approval

## Section 117.310, Emission Specifications for Attainment Demonstration

The New SIP adopts a new §117.310 that incorporates the specifications in the existing §117.206, relating to emission specifications for attainment demonstrations, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. The New SIP adopts a new §117.310(a) that incorporates the emission specifications in the existing §117.206(c). The catch line for subsection (a) is also changed to “Emission specifications for the Mass Emission Cap and Trade Program” to more accurately reflect the purpose of the emission specifications in combination with the MECT Program in Chapter 101, Subchapter H, Division 3. The New SIP adopts a new §117.310(a)(9)(D) and (E) that incorporate and reformat the specifications for diesel engines from the existing §117.206(c)(9)(D). New §117.310(a)(9)(D) includes the emission specification from existing §117.206(c)(9)(D)(i) and new §117.310(a)(9)(E) includes the emissions specifications from the existing §117.206(c)(9)(D)(ii). The New SIP adopts a new §117.310(b) that incorporates the rule language regarding NOx averaging time in the existing §117.206(d)(2). The New SIP adopts a new §117.310(c), concerning related emissions, that incorporates the rule language in existing §117.206(e) applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.310(c)(1) – (3) incorporate the rule language in existing §117.206(e)(1) - (3). New §117.310(c)(4)(A) and (B) incorporate the rule language in the existing §117.206(e)(4) and (4)(B) and (C), concerning the applicability of the CO emission specifications. In addition, for new §117.310(c)(2), the New SIP changes the emissions specification for ammonia from the word “ten” to the numeral “10.” Consistent with EPA guidance, the New SIP normally enforces emission test and monitoring results to the same significant figures as the emission specifications. Using the numeral “10” for the ammonia emission specification will ensure consistent enforcement of the emission specification. The New SIP adopts a new §117.310(d) that incorporates the rule language in existing §117.206(f), relating

to compliance flexibility. New §117.310(d)(1) – (3) incorporate the rule language from existing §117.206(f)(2) – (4). The New SIP adopts a new §117.310(e) that incorporates the rule language in existing §117.206(h), relating to prohibition of circumvention. Finally, new §117.310(f) incorporates the rule language in existing §117.206(i), relating to operating restrictions.

- The adopted provisions provide for the additional NO<sub>x</sub> emissions reductions plus operational flexibility within the Houston-Galveston-Brazoria area in the rule. Thus should be given approval.
- Please be aware that per TCEQ's request 117.310(c) will not become a part of EPA-approved Texas SIP revision.

### Section 117.315, Alternative Plant-Wide Emission Specifications

The New SIP adopts a new §117.315 that incorporates the rule language in existing §117.207, relating to alternative plant-wide emission specifications, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.315(a) – (f) incorporate the rule language in existing §117.207(a) – (f), relating to compliance with plant-wide emission specifications. New §117.315(g) incorporates the rule language from existing §117.207(g). In addition, existing §117.207(g)(1) - (3) include required calculations written in paragraph form rather than in equation form. The New SIP has reformatted the calculations in a mathematical formula rather than the paragraph form to present the equations in a format consistent with other equations in Chapter 117 and provide a written description of all the terms used in the equation. The mathematical formulas are identical in content to the existing required calculations in paragraph form. The new equation in §117.315(g)(1) incorporates the calculation for the allowable NO<sub>x</sub> emission rate for each affected boiler and process heater in the existing §117.207(g)(1). The new equation in §117.315(g)(2) incorporates the calculation for the allowable NO<sub>x</sub> emission rate for each affected stationary internal combustion engine in the existing §117.207(g)(2). The New SIP also adds new equations to §117.315(g)(3) that incorporate the calculation for the allowable NO<sub>x</sub> emission rate for each affected stationary gas turbine in the existing §117.207(g)(3). The new §117.315(g)(3) presents the equation for determining the plant-wide emission specification for stationary gas turbines from the required calculation in existing §117.207(g)(3). New §117.315(g)(3) also includes a new equation in §117.315(g)(3) that incorporates the existing equation for calculating the in-stack NO<sub>x</sub> concentration term used in calculating the plant-wide emission specification. The New SIP adopts a new §117.315(h) that incorporates the rule language in the existing §117.207(h), relating to gas-fired boilers or process heaters using fuel that contains more than 50% hydrogen by volume. New §117.315(i) that incorporates the rule language in existing §117.207(j), concerning applicability of the section after the compliance dates for emission specifications for attainment demonstration applicable in the Houston-Galveston-Brazoria ozone nonattainment area.

- The adopted provisions provide for operational flexibility to the participating source within Houston-Galveston-Brazoria in the rule. Thus should be given approval.

### Section 117.320, System Cap

The New SIP adopts a new §117.320 that incorporates the rule language in the existing §117.210, concerning system cap requirements for electric generation facilities in the Houston-Galveston-Brazoria ozone nonattainment area. New §117.320(a) – (k) incorporate the rule language in existing §117.210(a) – (k). Also, for new §117.320(b), the New SIP is revising the language in existing §117.210(b) that specifies “Each EGF that is subject to the NOX emission rates of §117.206 . . .” New §117.320(b) specifies “Each EGF that is subject to §117.310 . . .” While compliance with the emission specifications in existing §117.206(c) is achieved through the MECT Program and an individual unit may not necessarily be required to meet the applicable emission specification in §117.206(c), an electric generating facility (EGF) subject to existing §117.206(c) is still required to comply with the system cap in existing §117.210. This change for new §117.320(b) will clarify the New SIP’s intent and avoid misinterpretation of the rule requirements for an EGF subject to the MECT Program. In addition, the New SIP adopts new equations in §117.320(c)(1) – (3) that incorporate the equations in existing §117.210(c)(1) – (3). The new equations in §117.320(c)(1) – (3) present the equations in a format consistent with other equations in Chapter 117 and provide a written description of all the terms used in the equations. The new equation in §117.320(c)(1) incorporates the equation for the rolling 30-day average NOX emission cap during the months of July, August, and September in the existing §117.210(c)(1). Also, the New SIP revises variable (C) in the term  $H_i$  for §117.320(c)(1). The New SIP adds the language “after the end of the adjustment period as defined in §101.350 of this title (relating to Definitions)” to the definition of variable (C). This change is to clarify that the allowance for the adjustment period described in variable (D) also applies in variable (C). The new equation in §117.320(c)(2) incorporates the equation for the rolling 30-day average NOX emission cap during months other than July, August, and September in the existing §117.210(c)(2). Consistent with the change for new §117.320(c)(1), the New SIP revises variable (C) in the term  $H_i$  for §117.320(c)(2). The New SIP adds the language “after the end of the adjustment period as defined in §101.350 of this title (relating to Definitions)” to the definition of variable (C). This change is to clarify that the allowance for the adjustment period described in variable (D) also applies in variable (C). The new equation in §117.320(c)(3) incorporates the equation for the NOX maximum daily emission cap in the existing §117.210(c)(3). For new §117.320(e), the language in existing §117.210(e)(3)(B) that references existing §117.213(f) is changed to reference new §117.8100(b), because the applicable rule language from existing §117.213(f) is incorporated in a new §117.8100. Finally, for new §117.320(k), the New SIP replaces upset period with the language “emissions event, as defined in §101.1 of this title (relating to Definitions).” This change is necessary to update the rule to current terminology used by the New SIP.

## Section 117.323, Source Cap

The New SIP adopts a new §117.323 that incorporates the rule language in existing §117.223, relating to source cap, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.323(a) and (b) incorporate the rule language in existing §117.223(a) and (b). In addition, the New SIP adopts new equations in new §117.323(b) that incorporate the equations in existing §117.223(b) to present the equations in a format consistent with other equations in Chapter 117 and provide a written description of all the terms used in the equations. The new equations in §117.323 include only the provisions applicable to the Houston-Galveston-Brazoria ozone nonattainment area. The new equation in §117.323(b)(1) incorporates the equation for the rolling 30-day average emission cap in the existing §117.223(b)(1). Per EPA comment, variable “i” used in the equation for §117.323(b)(1) has been revised to be a lowercase “i” throughout the equation and terms to be consistent. The new equation in §117.323(b)(2) incorporates the equation for the rolling 30-day average NOX emission cap in the existing §117.223(b)(2). The New SIP adopts new §117.323(c) – (g) that incorporate the rule language in existing §117.223(c) – (g). New §117.323(h) incorporates the rule language in existing §117.223(i) and (i)(1). New §117.323(i) – (k) incorporate the rule language in existing §117.223(j) – (l), respectively. Finally, for new §117.323(j), the New SIP replaces upset period with the language “emissions event, as defined in §101.1 of this title (relating to Definitions).” This change is necessary to update the rule to current terminology used by the New SIP.

- The adopted provisions provide for operational flexibility to the participating source within the Houston-Galveston-Brazoria in the rule thus should be given approval

## Section 117.325, Alternative Case Specific Specifications

The New SIP adopts a new §117.325 that incorporates the rule language in the existing §117.221, relating to alternative case specific specifications, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.325(a) and (b) incorporate the provisions in existing §117.221(a) and (b). In addition, new §117.325(a) omits the existing §117.221(a)(4) because the Engineering Services Team no longer exists within the TCEQ.

- The adopted provisions provide for alternate emissions limitations or operational flexibility to a source as circumstances may warrant in the rule.
- Please be aware that per TCEQ’s request 117.325 will not become a part of EPA-approved Texas SIP revision.

## Section 117.330, Operating Requirements

The New SIP adopts a new §117.330 that incorporates the rule language in existing §117.208, relating to operating requirements, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.330(a) – (d) incorporate the rule language in existing §117.208(a) – (d). In addition, the New SIP is concurrently adopting a new §117.8140(b) that incorporates the engine testing requirements in the existing §117.208(d)(7). Therefore, the engine testing

requirements in existing §117.208(d)(7) have been omitted from the new §117.330(d)(7) and replaced with a reference to the new §117.8140(b).

### Section 117.335, Initial Demonstration of Compliance

The New SIP adopts a new §117.335 that incorporates the rule language in existing §117.211, relating to initial demonstration of compliance, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.335(a) – (d) incorporate the rule language in existing §117.211(a) – (d). Also, for new §117.335(a), the New SIP is revising the language in existing §117.211(a) that specifies “. . . all units which are subject to the emission limitations of this division . . .” must be tested. New §117.335(a) specifies “. . . any unit subject to §117.305 or §117.310 of this title . . .” must be tested. While compliance with the emission specifications in existing §117.206(c) is achieved through the MECT Program and an individual unit may not necessarily be required to meet the applicable emission specification in §117.206(c), units subject to existing §117.206(c) are still required to be tested according to existing §117.211. Similarly, for new §117.335(b), the New SIP revises the language to specify initial compliance with the requirements of this division instead of initial compliance with the emission limits of this division. These changes for new §117.335(a) and (b) will clarify the New SIP’s intent and avoid misinterpretation of the rule requirements for units subject to the MECT Program.

The New SIP is concurrently adopting a new §117.8000 that incorporates the requirements in the existing §117.211(e). Therefore, the New SIP adopts a new §117.335(e) that replaces specific requirements from existing §117.211(e) with a reference to the new §117.8000. In addition, while existing §117.211(a) and new §117.335(a) specify that units that inject urea or ammonia for NOX control must be tested for ammonia emissions, existing §117.211(e) does not specify the methods to be used for the required ammonia initial demonstration of compliance. New §117.8000 includes a requirement that specifies the methods required for ammonia testing during the initial demonstration of compliance. Specific discussion related to this change is included in the section-by-section discussion associated with new §117.8000.

New §117.335(f) incorporates the rule language from existing §117.211(f), regarding initial demonstration of compliance for units operating with CEMS or PEMS. Finally, the New SIP is concurrently adopting a new §117.8010 that incorporates the report content requirements in the existing §117.211(g). Therefore, the new §117.335(g) omits the compliance stack reports content requirements and references new §117.8010.

- The adopted provisions provide for enforceability of the rule thus should be given approval

### Section 117.340, Continuous Demonstration of Compliance

The New SIP adopts a new §117.340 that incorporates the rule language and requirements in existing §117.213 and §117.214 applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.340(a) incorporates the rule language concerning totalizing fuel flow meters in existing §117.213(a). The New SIP adopts a new §117.340(b) that incorporates

the rule language in existing §117.213(b), relating to O<sub>2</sub> monitors. In addition, existing §117.213(b)(1)(B)(i) requires O<sub>2</sub> monitors on process heaters greater than or equal to 100 MMBtu/hr, and clause (ii) requires O<sub>2</sub> monitors on process heaters greater than or equal to 200 MMBtu/hr, except as provided in existing §117.213(f). Because existing §117.213(b)(1)(B)(i) and (ii) are overlapping requirements, the new §117.340(b)(1)(B) incorporates both existing §117.213(b)(1)(B)(i) and (ii) into a single requirement for O<sub>2</sub> monitors on process heaters greater than or equal to 100 MMBtu/hr, except as provided in subsection (g).

The New SIP adopts a new §117.340(c) that incorporates the requirements in the existing §117.213(c), relating to NO<sub>x</sub> monitors. New §117.340(c)(1)(A) and (B) incorporate the requirements in the existing §117.213(c)(1)(A) and (B). New §117.340(c)(1)(C) - (H) incorporate the requirements in the existing §117.213(c)(1)(D) – (I). The New SIP adopts a new §117.340(c)(2) and (3) that incorporate the requirements in the existing §117.213(c)(2) and (3). In addition, for new §117.340(c)(3), the New SIP adopts a new §117.340(c)(3)(E) to add an additional option for substitute emissions compliance data during periods when the NO<sub>x</sub> monitor is off-line. The new §117.340(c)(3)(E)(i) specifies that for monitor downtime periods less than 24 consecutive hours, the owner or operator shall substitute the maximum block one-hour NO<sub>x</sub> emission rate, in pounds per million British thermal units (lb/MMBtu), from the previous 24 operational hours of the monitor. New §117.340(c)(3)(E)(ii) specifies that for monitor downtime periods equal to or greater than 24 consecutive hours, the owner or operator shall substitute the maximum block one-hour NO<sub>x</sub> emission rate, in lb/MMBtu, from the previous 720 operational hours of the monitor. New §117.340(c)(3)(E)(iii) specifies that if the fuel flow or stack exhaust monitor and the NO<sub>x</sub> monitor are simultaneously off-line, the owner or operator shall use the maximum block one-hour NO<sub>x</sub> pounds per hour emission rate for the substitute data in the new §117.340(c)(3)(E)(i) and (ii) in lieu of the lb/MMBtu emission rate. The provisions in new §117.340(c)(3)(E) are optional; however, the new data substitution procedures are more consistent with the requirements of the Mass Emissions Cap and Trade Program in the Houston-Galveston-Brazoria ozone nonattainment area. The New SIP adopts a new §117.340(d) that incorporates the rule language and ammonia monitoring requirements in the existing §117.214(a)(1)(D). New §117.340(d) specifies that the owner or operator of units subject to the ammonia emission specifications in the new §117.310(c)(2) shall comply with the ammonia monitoring requirements of the new §117.8130. The New SIP adopts a new §117.340(e) that incorporates the requirements in the existing §117.213(d) relating to CO monitoring. The specific requirements and method for CO monitoring in the existing §117.213(d)(1) and (2) appear in the new §117.8120, and subsequently have been omitted from the new §117.340(e) and replaced with a reference to the new §117.8120. The New SIP adopts a new §117.340(f), concerning requirements for CEMS. The New SIP is concurrently adopting a new §117.8100(a) that incorporates the general requirements for CEMS in the existing §117.213(e)(1) – (3), (5), and (6). Therefore, new §117.340(f) omits existing §117.213(e)(1) – (3), (5), and (6) and references new §117.8100(a) in new §117.340(f)(1). New §117.340(f)(2) incorporates the rule language and CEMS requirements in existing §117.213(e)(4) that are specific to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.340(f)(2)(A) incorporates the rule language regarding monitoring of bypass stacks from existing §117.213(e)(4)(A). New §117.340(f)(2)(B) incorporates the rule language regarding monitoring of exhaust streams that vent to a common stack from existing §117.213(e)(4)(C). The New SIP adopts a new §117.340(g) that



incorporates the rule language in the existing §117.213(f), relating to requirements for PEMS. New §117.340(g)(1) incorporates the rule language from existing §117.213(f)(1). The New SIP is concurrently adopting a new §117.8100(b) that incorporates the general requirements for PEMS in the existing §117.213(f)(2) - (7). Therefore, the new §117.340(g) omits existing §117.213(f)(2) – (7) and new §117.340(g)(2) references new §117.8100(b). The New SIP adopts a new §117.340(h) concerning testing requirements for stationary gas engines. For new §117.340(h), the New SIP revises the rule language “stationary gas engine subject to the emission specifications of this division” to specify “stationary gas engine subject to §117.305 of this title.” The New SIP is concurrently adopting a new §117.8140(a) that incorporates the engine testing requirements in existing §117.213(g)(1). Therefore, the new §117.340(h) omits specific testing procedures in existing §117.213(g)(1) and references new §117.8140(a). In addition, new §117.340(h) also specifies that the owner or operator of any stationary internal combustion engines subject to new §117.310 that are not equipped with NOX CEMS or PEMS shall test the engines for NOX and CO emissions as specified in new §117.8140(a) and (b). This change incorporates the testing requirements for engines from existing §117.214(b)(2). In addition, as previously indicated in this preamble, the requirement in existing §117.213(g)(2), regarding installation of CEMS or PEMS engines that use a chemical reagent for reduction of NOX, is redundant and the New SIP is not incorporating §117.213(g)(2) into the new §117.340(h). The New SIP adopts new §117.340(i) – (n) that incorporate the rule language in the existing §117.213(h) – (m), respectively. New §117.340(o) incorporates rule language from existing §117.214(b). New §117.340(o)(1) incorporates rule language from existing §117.214(b)(1), and new §117.340(o)(2) incorporates the rule language from existing §117.214(b)(3). The New SIP adopts a new §117.340(p) that incorporates the requirements of the existing §117.214(c), concerning provisions for emission allowances. The provisions in existing §117.214(a)(1)(A) – (C), concerning monitoring requirements for NOX, CO, and totalizing fuel flow meters, are redundant with existing requirements in §117.213 and new §117.340. Therefore, existing §117.214(a)(1)(A) – (C) are not incorporated in the new §117.340. Similarly, the requirement in existing §117.214(a)(2), concerning run time meters for diesel engines claimed exempt under existing §117.203(a)(6)(D), (11), or (12), is redundant with the requirement in existing §117.213(i) and new §117.340(j). Therefore, existing §117.214(a)(2) is not incorporated in the new §117.340.

- The adopted provisions provide for means, through use of CEMS and PEMS for monitoring, of enforceability of within Houston-Galveston-Brazoria in the rule. Thus should be given approval.

#### Section 117.345, Notification, Recordkeeping, and Reporting Requirements

The New SIP adopts a new §117.345 that incorporates the rule language in the existing §117.219, relating to notification, recordkeeping, and reporting requirements, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.345(a) – (f) incorporate the rule language from existing §117.219(a) – (f), respectively. Finally, the New SIP adopts a new §117.345(f)(11) that incorporates the ammonia recordkeeping requirements from existing §117.214(a)(1)(D)(v).

- The adopted provisions provide for means of notification, recordkeeping, and reporting within Houston-Galveston-Brazoria thus should be given approval

#### Section 117.350, Initial Control Plan Procedures

The New SIP adopts a new §117.350 that incorporates the rule language in the existing §117.209, relating to initial control plan procedures, applicable to the Houston-Galveston-Brazoria nonattainment area.

- The adopted provisions provide for the process of enforceability of the rule within Houston-Galveston-Brazoria thus should be given approval

#### Section 117.352, Final Control Plan Procedures for Reasonably Available Control Technology

The New SIP adopts a new §117.352 that incorporates the requirements in the existing §117.215, relating to final control plan procedures for RACT, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.352(a) incorporates the rule language in existing §117.215(a). New §117.352(a)(2)(A), (B), and (E) incorporate the rule language in existing §117.215(a)(2)(A), (B), and (E), respectively. New §117.352(a)(2)(C) incorporates the rule language in existing §117.215(a)(2)(D), and new §117.352(a)(2)(D) incorporates the rule language in existing §117.215(a)(2)(C). New §117.352(a)(3) – (6) incorporate the rule language in existing §117.215(a)(3) – (6), respectively. In addition, for new §117.352(a)(6)(B), concerning the information required in the final control plan for gas turbines with a MW rating less than 10 MW, the New SIP is changing the word “ten” to the numeral “10.0” because this is the appropriate exemption MW rating from existing §117.205(h)(7) and new §117.303(b)(7). As discussed elsewhere in this preamble, the use of the numeral “10.0” will ensure consistent enforcement of the rule. The New SIP adopts a new §117.352(b) and (c) that incorporate the rule language in existing §117.215(b) and (c), respectively. New §117.352 does not include existing §117.215(d), concerning the requirement to submit the control plan electronically and on hard copy using forms provided by the executive director. Existing §117.215 and new §117.352 specify the content requirements for the control plans. Therefore, a mandatory format for the control plan information is not necessary. Finally, the New SIP adopts a new §117.352(d) that incorporates rule language in existing §117.215(e), relating to report submittal dates.

- The adopted provisions provide for the process of enforceability of the RACT requirements within the Houston-Galveston-Brazoria in the rule thus should be given approval

#### Section 117.354, Final Control Plan Procedures for Attainment Demonstration Emission Specifications

The New SIP adopts a new §117.354 that incorporates the rule language in the existing §117.216, relating to final control plan procedures for attainment demonstration emission specifications, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.354(a) incorporates the rule language in the existing §117.216(a). New §117.354(a)(1)(A)

incorporates the rule language in existing §117.216(a)(1)(E), and new §117.354(a)(1)(B) incorporates the rule language in existing §117.216(a)(1)(C). Existing §117.216(a)(1)(A), (B), and (D) are not applicable to the Houston-Galveston-Brazoria ozone nonattainment area and are not incorporated in the new §117.354. New §117.354(a)(2) – (6) incorporate the rule language from existing §117.216(a)(2) – (6). For new §117.354(a)(5), the New SIP removes the language “the emission specification of.” As previously discussed in this preamble, this change is necessary to clarify the New SIP’s intent regarding units subject to the MECT Program.

Existing §117.216(b) is not incorporated in the new §117.354 because the source cap option in existing §117.223 is not a compliance option for sources in the Houston-Galveston-Brazoria ozone nonattainment area subject to existing §117.206(c) and the MECT Program. Finally, the New SIP adopts a new §117.354(b) that incorporates the rule language in existing §117.216(c), relating to report submittal dates.

- The adopted provisions provide for the process of applying additional NO<sub>x</sub> emissions reduction within Houston-Galveston-Brazoria area in the rule thus should be given approval

#### Section 117.356, Revision of Final Control Plan

The New SIP adopts a new §117.356 that incorporates the requirements in the existing §117.217, relating to revisions of final control plans, applicable to the Houston-Galveston-Brazoria ozone nonattainment area.

- The adopted provisions provide for operational flexibility to a participating source within Houston-Galveston-Brazoria by modification its final plan. Thus should be given approval.

#### Section 117.400, Applicability

New §117.400, concerning applicability, specifies that the new Subchapter B, Division 4 applies to the following unit types at major ICI stationary sources of NO<sub>x</sub> in the Dallas-Fort Worth eight-hour ozone nonattainment area: ICI boilers and process heaters; stationary gas turbines; stationary internal combustion engines; duct burners used in turbine exhaust ducts; lime kilns; metallurgical heat treating furnaces and reheat furnaces; incinerators; glass, fiberglass, and mineral wool melting furnaces; fiberglass and mineral wool curing ovens; natural gas-fired ovens and heaters; natural gas-fired dryers used in organic solvent, printing ink, clay, brick, ceramic tile, calcining, and vitrifying processes; brick and ceramic kilns; and lead smelting reverberatory and blast (cupola) furnaces. Based on comments received, fiberglass and mineral wool forming ovens and electric arc melting furnaces used in steel production have been removed from the applicability of the adopted rule. The paragraphs under §117.400 have been renumbered accordingly. In addition, for §117.400(11), the New SIP has revised the language to say natural gas-fired dryers used in organic solvent, printing ink, clay, brick, ceramic tile, calcining, and vitrifying processes. While the New SIP interprets this language in the same manner as the proposed language, comments were received that might indicate some confusion as to whether all processes were natural-gas fired. The revised language should avoid any misinterpretation of the

New SIP's intent.

- The adopted provisions are necessary for rule language consistency, and finding out what sources within the DFW area are subject to regulations. Thus should be given approval.

#### Section 117.403, Exemptions

New §117.403 specifies the unit types, sizes, or uses that are exempted from the requirements of the division. Units where the unit type, maximum rated capacity, or specific use would be technically or economically infeasible to comply with the specifications or are regulated under another division are exempted from the provisions of this division. New §117.403(a) specifies those units exempt from the division, except as specified in new §§117.440(i), 117.445(f)(4) and (9), 117.450, and 117.454. The exceptions to the exemptions are related to monitoring, recordkeeping, and control plan requirements associated with exempted units. Based on comments received, the New SIP has revised the exemption limit threshold for process heaters for reasons discussed elsewhere in this preamble. New §117.403(a)(1)(A) specifies that ICI boilers with a maximum rated capacity of 2.0 MMBtu/hr or less are exempt. New §117.403(a)(1)(B) specifies that process heaters with a maximum rated capacity equal to or less than 5.0 MMBtu/hr are exempt. Natural gas-fired units with a maximum rated capacity of 2.0 MMBtu/hr or less are already regulated under existing Subchapter B, Division 1, that is incorporated in new Subchapter E, Division 3. New §117.403(a)(2) specifies an exemption for heat treating furnaces and reheat furnaces less than 20 MMBtu/hr. This exemption level is consistent with the exemption in existing §117.203(a)(3) for similar sources in the Houston-Galveston-Brazoria area and is adopted for the Dallas-Fort Worth eight-hour ozone nonattainment area due to the low level of NOX emissions from units of this size and the impracticality of installing and maintaining NOX controls on such units. New §117.403(a)(3) specifies exemptions for flares and incinerators with a maximum rated capacity of 40 MMBtu/hr due to the low level of NOX emissions from these units and the impracticality of installing and maintaining NOX controls on such units. This exemption is consistent with existing exemptions in the specifications for the Houston-Galveston-Brazoria area of §117.203(a)(4). In addition, new §117.403(a)(3) specifies that pulping liquor recovery furnaces, sulfur recovery units, sulfuric acid regeneration units, molten sulfur oxidation furnaces, and sulfur plant reaction boilers are also exempt. This addition is consistent with the existing exemptions in the specifications for the Houston-Galveston-Brazoria area for units that commingle fuel and process chemicals and are not large sources of NOX emissions. New §117.403(a)(4) specifies dryers, heaters, or ovens with a maximum rated capacity of 5.0 MMBtu/hr or less are exempt. This exemption level is adopted due to the relatively small contribution of NOX emissions from units of this size and the impracticality of installing and maintaining NOX controls on such units. New §117.403(a)(5) specifies dryers, heaters, or ovens fired on fuels other than natural gas are exempt. The New SIP is adopting this exemption due to the limited number, if any, of these unit types fired on fuels other than natural gas and their insignificant contribution to NOX levels in the area. The adopted §117.403(a)(5) is also revised to reflect the changes made to §117.400(9) and (11). New §117.403(a)(6) specifies that any glass, fiberglass, or mineral wool melting furnaces with a maximum rated capacity of 2.0 MMBtu/hr or less are exempt from the specifications of this division. This exemption level is adopted due to the relatively small contribution to NOX emissions in the area from units of this size and the

impracticality of installing and maintaining NOX controls on such units. In addition, the following stationary internal combustion engines and stationary gas turbines are exempt under the new §117.403(a)(7)(A) – (G): engines and stationary gas turbines used in research and testing; used for purposes of performance verification and testing; used solely to power other engines or gas turbines during startups; used exclusively in emergency situations (except that operation for testing or maintenance purposes is allowed for up to 100 hours per year, based on a rolling 12-month average); used in response to and during the existence of any officially declared disaster or state of emergency; used directly and exclusively by the owner or operator for agricultural operations necessary for the growing of crops or raising of fowl or animals; or used as chemical processing gas turbines. Based on comments received, the adopted exemption in §117.403(a)(7)(D) was revised to allow up to 100 hours of use for testing or maintenance purposes, instead of the 52 hours allowed under the proposed §117.403(1)(7)(D). Any new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after June 1, 2007, is not eligible for the emergency use exemption in §117.403(a)(7)(D). These exemptions are due to the relatively small NOX emissions contribution in the area from these sources due to their limited use or the impracticality of using NOX emissions controls during such limited operating times. The exemptions in new §117.403(a)(7)(A) – (G) are similar to existing exemptions in the Houston-Galveston-Brazoria area. New §117.403(a)(8) specifies an exemption for any stationary diesel engine placed into service before June 1, 2007, that operates less than 100 hours per year, based on a rolling 12-month average, and has not been modified, reconstructed, or relocated on or after June 1, 2007. New §117.403(a)(9) exempts any new, modified, reconstructed, or relocated stationary diesel engine placed into service on or after June 1, 2007, that operates less than 100 hours per year, in other emergency situations, and meets the corresponding emission standard for non-road engines listed in 40 Code of Federal Regulations (CFR) §89.112(a), Table 1 (October 23, 1998) and in effect at the time of installation, modification, reconstruction, or relocation. These exemptions are consistent with existing exemptions applicable in the Houston-Galveston-Brazoria ozone nonattainment area for emergency back-up diesel engines and are adopted for the Dallas-Fort Worth eight-hour ozone nonattainment area because of the limited use of emergency back-up diesel engines. New §117.403(a)(10) exempts boilers and industrial furnaces that were regulated as existing facilities by the EPA, 40 CFR Part 266, Subpart H, as was in effect on June 9, 1993. This exemption is consistent with existing exemptions applicable in the Houston-Galveston-Brazoria ozone nonattainment area and is necessary to avoid overlapping regulatory requirements for cement kilns regulated by new Chapter 117, Subchapter E, Division 2. New §117.403(a)(11) exempts brick or ceramic kilns with a maximum rated capacity less than 5.0 MMBtu/hr. This exemption is adopted due to the relatively small NOX emissions contribution in the area from these smaller kilns. New §117.403(a)(12) has been added in response to comments received and exempts curing ovens used in mineral wool-type fiberglass manufacturing in which nitrogen-bound chemical additives are used. The addition of nitrogen-bound chemical additives contributes to the creation of non-combustion related thermal NOX which cannot be controlled using the control methodologies the New SIP has identified as appropriate for curing ovens used in mineral wool type fiberglass manufacturing. In addition, the amount of NOx from curing ovens of this type are estimated to be a small contribution to the total NOX emissions from this industry. New §117.403(a)(13) has been added in response to comment and exempts stationary, gas-fired, reciprocating internal combustion engines with a horsepower (hp) rating less than 50 hp. This

revision has been adopted due to the relatively small NOX emissions contribution in the area from these smaller engines. New §117.403(a)(14) has been added to specify that electric arc melting furnaces used in steel production are exempt from the rule. A new §117.403(a)(15) has also been added that exempts all forming ovens and forming processes used in mineral wool type fiberglass manufacturing. These exemptions have been added based on comments received that are discussed elsewhere in this preamble. New §117.403(a)(16) has been added to clarify that heaters used exclusively to heat air for physical comfort in an occupational space are exempt and were not intended to be regulated under this rulemaking. The §117.403(b), concerning IOP exemptions, exempts stationary, reciprocating internal combustion engines with a maximum rated capacity of less than 300 horsepower (hp) from the emission specification in new §117.410(a). This exemption is consistent with the current exemption applicable to the engines subject to existing §117.206(b)(3) and is necessary to ensure that engines not previously subject to existing §117.206(b)(3) are inadvertently made subject to the emission specifications in §117.410(a). New §117.403(b) also specifies that the specifications of §117.410(a) no longer apply to any stationary, reciprocating internal combustion engine subject to the emission specifications of §117.410(b) after the compliance date specified in §117.9030(b). This exemption is to prevent units subject to the 5% IOP emission specifications from being regulated by two overlapping requirements once the more stringent emission specifications in §117.410(b) become applicable. In addition, while no comments were received regarding the exemptions in §117.403(b), it has come to the New SIP's attention that an applicable exemption that might apply to engines that would otherwise be subject to the existing §117.206(b)(3) was inadvertently omitted from the proposed version of §117.403(b). The exemption in existing §117.205(h)(9) that exempts engines that are demonstrated to operate less than 850 hours per year, based on a 12-month average, is referenced from existing §117.206(g)(2). The New SIP is adopting a new §117.403(b)(3) that includes this exemption. The exemption for engines demonstrated to operate less than 850 hours per year is not applicable to the new adopted standards for engines in §117.410(b) and is therefore not included in the general exemptions in §117.403(a). In response to comments received, the New SIP adopts a new §117.403(c) to provide an emergency fuel oil firing exemption for gas-fired boilers. New subsection (c) specifies that the emission specifications in §117.410(b)(1) and (d) do not apply to gas-fired boilers during periods that the owner or operator is required to fire fuel oil on an emergency basis due to natural gas curtailment or other emergency, provided the conditions in paragraphs (1) and (2) are met. Paragraph (1) specifies that the fuel oil firing must have occurred during November, December, January, or February, and paragraph (2) limits the fuel oil firing to a total of 72 hours in any of these months. These provisions are intended to limit the emergency fuel oil firing to as limited amount of time as possible and to non-ozone season only.

- The NOx emissions from these sources (for example, units of 2 MMBtu, 5 MMBtu in size, or units that operate 100 hours or less per year) are below the major source threshold for NOx; therefore, their exemption is not considered problematic for applicability purposes.
- The adopted provisions provide clarity as to what sources within the DFW area are not subject to regulations. Thus should be given approval.

## Section 117.410, Emission Specifications for Eight-Hour Attainment Demonstration

The New SIP adopts a new section §117.410, relating to Emission Specifications for Eight-Hour Attainment Demonstration. The new §117.410 establishes NOX emissions specifications for units in the Dallas-Fort Worth eight-hour ozone nonattainment area that are subject to this rulemaking. New §117.410(a), concerning emission specifications for increment of progress, incorporates the emissions specifications for gas-fired engines with a maximum capacity greater than 300 hp established under the 5% IOP from the existing one-hour specifications in existing §117.206(b)(3) into the eight-hour attainment demonstration. The 5% IOP specifications in existing §117.206(b)(3) apply to all nine counties in the Dallas-Fort Worth eight-hour ozone nonattainment area and are therefore more consistent with the new Subchapter B, Division 4. The existing emission specifications and rule language from existing §117.206(b)(3) are incorporated in new §117.410(a) without change, except for non-substantive changes associated with reformatting and renumbering. New §117.410(b) includes the new emission specifications for the Dallas-Fort Worth eight-hour ozone attainment demonstration. New §117.410(b)(1) specifies a NOX emission specification for non-utility gas-fired boilers depending on maximum capacity. Gas-fired boilers with a maximum rated capacity equal to or greater than 100 MMBtu/hr are limited to 0.020 lb/MMBtu. Gas-fired boilers with a maximum rated capacity equal to or greater than 40 MMBtu/hr but less than 100 MMBtu/hr are limited to 0.030 lb/MMBtu. The emission limit for gas-fired boilers with a maximum rated capacity less than 40 MMBtu/hr is 0.036 lb/MMBtu, or alternatively, 30 parts per million by volume (ppmv), at 3.0% O<sub>2</sub>, dry basis. The 0.020 lb/MMBtu emission specification for gas-fired boilers greater than 100 MMBtu/hr is expected to require the installation of SCR. Owners or operators of gas-fired boilers equal to or greater than 40 MMBtu/hr but less than 100 MMBtu/hr may be able meet the 0.030 lb/MMBtu emission specification through combustion modifications, such as installation of low-NOX burners or burner modifications; however, SCR may be required in some cases to meet this emission specification. The emission specification of 0.036 lb/MMBtu for boilers less than 40 MMBtu/hr is expected to be achievable through installation of low-NOX burners or burner modifications. New §117.410(b)(2) specifies a NOX emission specification of 2.0 pounds per 1,000 gallons of liquid burned for liquid-fired boilers. The New SIP anticipates that this emission specification is achievable through installation of SCR. New §117.410(b)(3) includes NOX emission specifications of 0.025 lb/MMBtu for process heaters with a maximum rated capacity equal to or greater than 40 MMBtu/hr and 0.036 lb/MMBtu (or alternatively, 30 ppmv, at 3.0% O<sub>2</sub>, dry basis) for process heaters with a maximum rated capacity less than 40 MMBtu/hr. SCR may be necessary for process heaters with a maximum rated capacity equal to or greater than 40 MMBtu/hr to comply with the 0.025 lb/MMBtu emission specification. Owners or operators of gas-fired process heaters with maximum rated capacities less than 40 MMBtu/hr may be required to install low-NOX burners or make other combustion modifications to comply with the 0.036 lb/MMBtu emission specification. No liquid-fired process heaters were identified in the inventory in the Dallas-Fort Worth eight-hour ozone area; however, SCR may be necessary for a liquid-fired process heater to comply with the emission specification. New §117.410(b)(4) provides NOX emission specifications for stationary reciprocating internal combustion engines. The language in §117.410(b)(4)(A) and (B) establishes NOX emission specifications for stationary, gas-fired rich-burn and lean-burn, reciprocating internal combustion

engines. Gas-fired engines fired on landfill gas are limited to 0.60 grams per horsepower-hour (g/hp-hr) and all other gas-fired engines are limited to 0.50 g/hp-hr. Nonselective catalytic reduction (NSCR) is expected to be the primary control technology for rich-burn gas-fired engines. In some cases, the addition of a secondary catalyst module may be required to meet the emission specification. Based on comments received, the New SIP has revised the emission specifications for lean-burn gas-fired engines under §117.410(b)(4)(B). Lean-burn placed into service before June 1, 2007, that have not been modified, reconstructed, or relocated on or after June 1, 2007, are limited to 0.70 g/hp-hr under §117.410(b)(4)(B)(i). New §117.410(b)(4)(B)(ii) establishes emission specifications for lean-burn gas-fired engines installed, modified, reconstructed, or relocated on or after June 1, 2007. New §117.410(b)(4)(B)(ii)(I) establishes a limit of 0.60 g/hp-hr for lean-burn engines fired on landfill gas, and new §117.410(b)(4)(B)(ii)(II) establishes a limit of 0.50 g/hp-hr for all other lean-burn engines. For lean-burn gas-fired engines, the New SIP has identified two possible control methodologies to achieve the emission standards. One control technology available for lean-burn engines is the application of an exhaust gas recirculation (EGR) kit combined with NSCR control. While NSCR is not normally applied to lean-burn engines, the use of the EGR kit reduces exhaust gas O<sub>2</sub> and allows NSCR to be installed. Owners or operators of some lean-burn engines may not be able to apply EGR coupled with NSCR. In these cases, SCR may be necessary to meet the emission specification. The New SIP has identified only one engine located at a major source in the Dallas-Fort Worth eight-hour ozone nonattainment area that is fired on land-fill gas. The emission specification of 0.60 g/hp-hr is expected to be achievable through combustion modifications. New §117.410(b)(4)(C) limits stationary, dual-fuel, reciprocating internal combustion engines to 0.50 g/hp-hr. There are three possible dual-fuel engines identified at major sources in the Dallas-Fort Worth eight-hour ozone nonattainment area. The New SIP anticipates that SCR may be necessary to comply with the 0.50 g/hp-hr emission specification.

New §117.410(b)(4)(D) and (E) establish NOX emission specifications for stationary diesel reciprocating internal combustion engines. While the date associated with the emission specifications in §117.410(b)(4)(D) and (E) was not specifically commented on, the New SIP has determined that March 1, 2009, the compliance date specified for diesel engines in §117.9030, is more appropriate to use as a basis for the tiered emission specification under §117.410(b)(4)(D) and (E). Aligning the date with the compliance date in §117.9030 will simplify the emission specification schedule and make compliance with the rule easier for owners or operators of engines that were ordered prior to the rule proposal but would not be installed by June 1, 2007. This revision also provides relief for emergency diesel engines installed after June 1, 2007, that might not qualify for exemption under §117.403(a)(8) or (9). The new §117.410(b)(4)(D) establishes NOX emission specifications for stationary diesel reciprocating internal combustion engines placed into service before March 1, 2009, and that have not been modified, reconstructed, or relocated on or after March 1, 2009, as the lower of 11.0 g/hp-hr or the emission rate established by testing, monitoring, manufacturer's guarantee, or manufacturer's other data. In addition, the definitions of modification, reconstruction, and relocated that were proposed in §117.410(b)(4)(D) are moved to a new §117.410(b)(4)(F) because these definitions apply to all §117.410(b)(4). The new §117.410(b)(4)(E) establishes the NOX emission specifications for stationary diesel engines installed, modified, reconstructed, or relocated on or after March 1, 2009. The emission specifications in §117.410(b)(4)(E) are tiered based on engine horsepower and are consistent with the final standards for stationary diesel engines in the Houston-Galveston-



Brazoria nonattainment area. The New SIP expects that, initially, the majority of stationary diesel engines at major sources of NOX in the Dallas-Fort Worth eight-hour ozone nonattainment area will qualify for exemption under §117.403(a)(9). When owners or operators modify, reconstruct, or relocate existing stationary diesel engines on or after March 1, 2009, if used exclusively in emergency situations, these engines will continue to be exempt from the new emission specifications, but will be required to meet the EPA Tier 1, Tier 2, and Tier 3 emission standards for non-road diesel engines in effect at the time of installation, modification, reconstruction, or relocation. This requirement will ensure that as turnover of older, higher-emitting stationary diesel engines occurs, the replacements will be cleaner engines. For engines that do not qualify for exemption, the New SIP does not anticipate that engines placed into service prior to March 1, 2009, will require combustion modifications to meet the 11.0 g/hp-hr emission specification. The cost of combustion modifications to stationary diesel engines to meet the emission standards in §117.410(b)(4)(D) is expected to be near the cost of a new engine; therefore, the New SIP anticipates that for engines placed into service on or after March 1, 2009, the owner or operator will likely purchase new equipment rather than retrofit or modify existing equipment. As discussed elsewhere in this preamble, new §117.410(b)(4)(F) provides the definitions of the terms modification, reconstruction, and relocated that were originally proposed in §117.410(b)(4)(D). Because these terms are used in new §117.410(b)(4)(B), this change is necessary to clarify the meaning of the terms for all of paragraph (4). New §117.410(b)(5) establishes NOX emission specifications for stationary gas turbines. Stationary gas turbines rated at 10 MW or greater are limited to 0.032 lb/MMBtu; stationary gas turbines rated at 1.0 MW or greater, but less than 10 MW, are limited to 0.15 lb/MMBtu; and stationary gas turbines less than 1.0 MW are limited to 0.26 lb/MMBtu. The new §117.410(b)(6) specifies that duct burners used in turbine exhaust ducts are limited to the corresponding gas turbine emission specifications of §117.410(b)(5). Compliance with the emission specification of 0.032 lb/MMBtu for stationary gas turbines and duct burners used in turbine exhaust ducts may require the installation of SCR. The emission specifications for all stationary gas turbines less than 10 MW and duct burners used in associated turbine exhaust ducts are expected to be achievable through combustion modifications such as water or steam injection or other modifications. The new §117.410(b)(7) establishes emission specifications for lime, brick, and ceramic kilns in the Dallas-Fort Worth eight-hour ozone nonattainment area. In response to comments received and discussed further elsewhere in this preamble, the New SIP has revised the emission specification for lime kilns in §117.410(b)(7)(A) to 3.7 pounds per ton (lb/ton) of calcium oxide (CaO) produced. In addition, the New SIP has provided two compliance options in new clauses (i) and (ii) for lime kilns to meet this emission specification. New §117.410(b)(7)(A)(i) provides lime kiln owners and operators with the option of complying with the 3.7 lb/ton CaO on a unit-by-unit basis, i.e., on an individual kiln basis. New §117.410(b)(7)(A)(ii) allows owners or operators to demonstrate compliance on a site-wide production rate weighted average basis. New §117.410(b)(7)(A)(ii) specifies an equation for determining the site-wide production rate weighted average NOX emission rate. The equation calculates the daily site-wide production rate weighted average based on the daily average NOX emission rate for each kiln multiplied by that kiln's daily production rate in tons/day, then summing these products for all kilns to calculate total NOX emissions for the day and dividing by the total site-wide production in tons/day. The emission limit of 3.7 lb/ton of CaO is based on good combustion practices and proper kiln operation, possibly combined with low-NOX burners, as specified by the EPA as Best Available Control Techniques (BACT) for lime kilns.

Based on comments received and discussed elsewhere in this preamble, new §117.410(b)(7)(B) allows two compliance options for brick and ceramic kilns. New §117.410(b)(7)(B)(i) allows the option of a 40% reduction from the daily NOX emissions reported to the Industrial Emissions Assessment Section for the calendar year 2000 Emissions Inventory. To ensure that this emission specification will result in a real 40% reduction in actual emissions, a consistent methodology must be used to calculate the 40% reduction. New §117.410(b)(7)(B)(ii) establishes a NOX emission specification of 0.175 pounds per ton of product for brick kilns. New §117.410(b)(7)(B)(iii) establishes a NOX emission specification of 0.27 pounds per ton of product for ceramic kilns. Compliance with these control requirements is anticipated to be achievable through combustion and process modifications, installation of low-NOX burners or staged combustion, or some combination of these control measures.

New §117.410(b)(8) establishes NOX emission specifications for metallurgical furnaces. Heat treating furnaces are limited to 0.087 lb/MMBtu under subparagraph (A), and reheat furnaces are limited to 0.10 lb/MMBtu under subparagraph (B). The emission specification for heat-treat furnaces is based on the emission specifications for heat treating in the Houston-Galveston-Brazoria ozone nonattainment area and is expected to be achievable through combustion modifications or installation of low-NOX burners combined with flue gas recirculation (FGR). The emission specification for reheat furnaces is based on the permitted BACT limits for similar units and is anticipated to require the owners or operators of affected units to make combustion modifications, install ultra low-NOX burners, and possibly install FGR units to meet the specifications. In addition, based on comments received, the New SIP has revised subparagraphs (A) and (B) to specify that furnaces equipped with NOX CEMS or PEMS are only required to meet these emission specifications from March 1 to October 31. This provision allows owners and operators the ability to shift production of high heat input products to non-ozone season as a potential means of assisting compliance with the emission standards.

As discussed elsewhere in this preamble, the New SIP is exempting electric arc melting furnaces used in steel production; therefore, proposed subparagraph (C) is not adopted with this rulemaking. The emission specification for lead smelting blast and reverberatory furnaces used in conjunction, proposed as subparagraph (D), is adopted as subparagraph (C). The emission specification of a combined rate of 0.45 pounds per ton of product for lead smelting blast and reverberatory furnaces used in conjunction is unchanged from the proposed rule. Owners or operators may be required to use a combination of low-NOX burners and FGR or possibly post-combustion controls such as SNCR to meet this emission specification.

New §117.410(b)(9) establishes NOX emission specifications for incinerators and provides two options. The first option is to achieve an 80% reduction from the daily NOX emissions reported to the Industrial Emissions Assessment Section for the calendar year 2000 Emissions Inventory. To ensure that this emission specification will result in a real 80% reduction in actual emissions, a consistent methodology must be used to calculate the 80% reduction. The second option is to comply with a 0.030 lb/MMBtu emission specification. While these emission specifications for incinerators may be achievable through installation of low-NOX burners or making other combustion modifications, SCR may be necessary to achieve the 80% reduction or the 0.030 lb/MMBtu emission specification. Proposed §117.410(b)(10) established emission specifications for glass and fiberglass melting furnaces. Based on comments received and discussed in detail elsewhere in this preamble, the emission specifications for glass and fiberglass melting furnaces under paragraph (10) have been revised to address technical feasibility issues associated with

different furnace types, designs, and operations. New §117.410(b)(10)(A)(i) changes the emission specification for container glass melting furnaces operating equal to or more than 25% of the permitted glass production capacity to 4.0 lb/ton glass pulled. New §117.410(b)(10)(A)(ii) provides for “idling” situations in which the furnace is required to operate at less than 25% of its permitted glass production capacity and sets the emission rate during this operation at the applicable maximum allowable pound per hour NOX permit limit in a permit issued before June 1, 2007. As discussed elsewhere in this preamble, this distinction regarding emission specifications is necessary to address an operational requirement known as “idling” when the furnace is required to operate at very low production rates. Due to comments received and discussed elsewhere in this preamble, proposed subparagraph (B) has been revised to clarify the electric furnaces regulated under this subparagraph as “cold top” electric furnaces and change the emission limit to 4.0 lb/ton product. Subparagraph (C) regulating mineral wool-type fiberglass regenerative furnaces at a NOX emission specification of 1.45 lb/ton of product remains unchanged and is adopted as proposed. Due to comments received and discussed elsewhere in this preamble, new subparagraph (D) has been added to differentiate mineral wool-type fiberglass non-regenerative gas-fired furnaces from those regulated under subparagraph (C). The emission specification for mineral wool-type fiberglass non-regenerative gas-fired furnaces is 3.1 lb/ton product based on permitted emission rates. The New SIP anticipates that most of the affected glass and fiberglass melting furnaces will require low-NOX burners, oxy-firing, SCR, SNCR, or a combination of these control technologies to reach the emission specifications. Informal stakeholder comments indicated that SCR is not an appropriate control technology for glass and fiberglass melting furnaces due to wide variations in furnace operating temperatures. In addition, NOX emissions from glass melting furnaces, especially electric glass melting furnaces, are typically thermal NOX emissions formed from the combustion air and high operating temperatures of the furnace and will therefore require oxy-firing for compliance.

New §117.410(b)(11) and (12) establish a 0.036 lb/MMBtu NOX emission specification for the following units, respectively: gas-fired curing ovens used for the production of mineral wool-type or textile-type fiberglass; natural gas-fired ovens and heaters used in industrial processes. As discussed elsewhere in this preamble, §117.410(b)(11) excludes forming ovens used in mineral wool-type fiberglass manufacturing because this source category is exempt under the adopted rule. These emission specifications are anticipated to be achieved through combustion modifications, such as burner modifications or installation of low-NOX burners.

New §117.410(b)(13)(A) establishes a NOX emission specification of 0.036 lb/MMBtu for natural gas-fired dryers used in organic solvent, printing, clay, brick, ceramic tile, calcining, and vitrifying processes. In addition, §117.410(b)(13)(A) is revised to clarify the applicability of these types of dryers consistent with the changes discussed elsewhere regarding §117.400(11). New §117.410(b)(13)(B) establishes a 0.15 lb/MMBtu NOX emission specification for spray dryers used in ceramic tile manufacturing processes. These emission specifications are anticipated to be achieved through combustion modifications, such as burner modifications or installation of low-NOX burners. New §117.410(b)(14) provides an alternative to the emission specifications in paragraphs (1) - (13) of §117.410(b) for units with an annual capacity factor of 0.0383 or less. The alternative NOX emission specification for qualifying units is 0.060 lb/MMBtu. This low annual capacity factor and alternative emission specification are consistent with a similar provision specified for the Houston-Galveston-Brazoria ozone nonattainment area in existing §117.206(c)(2). The capacity factor as of December 31, 2000, must be used to determine

whether the unit is eligible for the alternative emission specification. A 12-month rolling average must be used to determine the annual capacity factor for units placed into service after December 31, 2000. New §117.410(c), concerning NOX averaging time, specifies the averaging times for compliance with the emission specifications. New §117.410(c)(1) specifies the averaging times for units equipped with CEMS or PEMS and provides three options under subparagraphs (A), (B), and (C). Subparagraph (A) specifies a rolling 30-day average, in the units of the applicable standard. Subparagraph (B) specifies a block one-hour average basis, in the units of the applicable standard. Subparagraph (C) specifies a block one-hour average, in pounds per hour, for boilers and process heaters, calculated based on the maximum rated capacity and the applicable emission specification. For units not equipped with CEMS or PEMS, new §117.410(c)(2) requires the averaging time to be a block one-hour average in the units of the applicable standard, but allows the emission specifications for boilers and process heaters to be applied in pounds per hour as specified in new §117.410(c)(1)(C).

New §117.410(d) establishes ammonia and CO emission specifications for any unit subject to the emission specifications in §117.410(a) or (b) as applicable. These ammonia and CO emission specifications are necessary to ensure that the NOX reduction strategies of this rulemaking do not result in an excessive increase in emissions of other pollutants. New §117.410(d)(1) establishes a CO emission specification of 400 ppmv at 3% O<sub>2</sub>, dry basis (or alternatively, 3.0 g/hp-hr for stationary internal combustion engines) on a rolling 24-hour averaging period for units equipped with CEMS and PEMS for CO, and on a one-hour average for units not equipped with CEMS or PEMS. New §117.410(d)(2) specifies that units that inject urea or ammonia into the exhaust stream for NOX control must meet a 10 ppmv ammonia emission specification. The 10 ppmv ammonia emission specification is corrected to 3.0% O<sub>2</sub> for boilers and process heaters, 15% O<sub>2</sub> for stationary gas turbines and gas-fired lean-burn engines, 7.0% O<sub>2</sub> for incinerators, and 3.0% O<sub>2</sub> for all other units. The specified averaging time for the ammonia emission specification is on a rolling 24-hour averaging period for units equipped with CEMS and PEMS for ammonia, and on a one-hour average for units not equipped with CEMS or PEMS. New §117.410(d)(3) specifies that the correction of CO emissions to 3.0% O<sub>2</sub>, dry basis, does not apply to boilers and process heaters operating at less than 10% maximum load and stack O<sub>2</sub> more than 15%. New §117.410(d)(4) lists cases where the CO emission specification in new §117.410(d)(1) does not apply, including stationary internal combustion engines subject to new §117.410(a), and incinerators subject to CO limits under 30 TAC §111.121 or §113.2072, or 40 CFR Part 264 or 265, Subpart O, for hazardous waste incinerators.

New §117.410(e) specifies conditions for compliance flexibility with the NOX emission specifications of new §117.410. New §117.410(e)(1) specifies that owners or operators may use the source cap option under new §117.423 or emission reduction credits as specified in new §117.9800 to comply with the NOX emission specifications of new §117.410. New §117.410(e)(2) prohibits using new §117.425, concerning alternative case specific specifications, as a method of compliance with the NOX emission specifications of new §117.410. This prohibition is necessary to ensure that the NOX reductions anticipated from this rulemaking will be realized. New §117.410(e)(3) specifies that owners or operators may petition the executive director for an alternative to the CO and ammonia emission specifications according to new §117.425. New §117.410(f) establishes the provisions for prohibition of circumvention to ensure

the anticipated NOX reductions modeled for this rulemaking will be realized. The new §117.410(f)(1) establishes that the maximum rated capacity used to determine the applicability of the emissions specifications, initial compliance demonstration, monitoring, testing requirements, and final control plan in §§117.410, 117.435, 117.440, and 117.454 must be the greater of the maximum rated capacity as of December 31, 2000, or the maximum rated capacity authorized by a permit issued under 30 TAC Chapter 116 after December 31, 2000. New §117.410(f)(2) specifies that a unit's classification for the purposes of Subchapter B, Division 4, is determined by the most specific classification applicable to the unit as of December 31, 2000. While no comments were received regarding §117.410(f)(3), the New SIP has become aware of a discrepancy between the prohibition of circumvention provision in subsection (f)(3) and similar provisions in §117.2110 for minor sources in the Dallas-Fort Worth eight-hour ozone nonattainment area and in §117.310 and §117.2010 for the Houston-Galveston-Brazoria ozone nonattainment area. As proposed, §117.410(f)(3) would not allow any changes to a unit subject to §117.410(b) that would result in an increase of NOX emissions at a unit not subject to §117.410(b). The provision as proposed is too restrictive and possibly could cause an owner or operator to be in a position in which compliance would not be possible. Therefore, the New SIP has revised new §117.410(f)(3) to specify that changes after December 31, 2000, to a unit subject to an emission specification in §117.410(b) that result in increased NOX emissions from a unit not subject to an emission specification of §117.410(b) are only allowed if the provisions in new §117.410(f)(3)(A) and (B) are met. New subparagraph (A) requires that the increase in NOX emissions at the unit not subject to §117.410(b) must be determined using CEMS or PEMS according to §117.440 or through testing according to §117.435. New subparagraph (B) requires that emission credits equal to the increase in NOX emissions at the unit not subject to §117.410 must be obtained and used in accordance with §117.9800. The provisions in subparagraphs (A) and (B) are consistent with the prohibition of circumvention provisions in §§117.310, 117.2010, and 117.2110. The new §117.410(f)(4) specifies that a source that met the definition of a major source as of December 31, 2000, is always classified as a major source for the purposes of Subchapter B, Division 4. A source that did not meet the definition of major source on December 31, 2000, but at any time after December 31, 2000, becomes a major source, will from that time forward always be classified as a major source for purposes of Subchapter B, Division 4. New §117.410(f)(5) specifies that the availability under §117.410(b)(14) of an alternative emission specification for units with an annual capacity factor of 0.0383 or less is based on the unit's status on December 31, 2000. Reduced operation after December 31, 2000, cannot be used to qualify for a more lenient emission specification under §117.410(b)(14) than would otherwise apply to the unit. New §117.410(f)(6) specifies that prohibition of circumvention of §117.410(f) does not apply to stationary, reciprocating internal combustion engines subject to the IOP emission specifications in §117.410(a) until the compliance date specified in §117.9030(b). These engines are not currently subject to the prohibition of circumvention under existing §117.206, and new §117.410(f)(6) ensures that the provisions of this subsection are not imposed on the owners or operators of these engines until the engines become subject to the new emission specifications in §117.410(b). New §117.410(g), relating to operating restrictions, specifies that no person may start or operate any stationary diesel or dual-fuel engine for testing or maintenance between the hours of 6:00 a.m. and noon, except for specific manufacturer's recommended testing requiring a run of over 18 consecutive hours, to verify reliability of emergency equipment (e.g., emergency generators or pumps) immediately after unforeseen repairs or firewater pumps for emergency

response training conducted from April 1 through October 31. For the purposes of this provision, new §117.410(g) also specifies that routine maintenance such as an oil change is not considered to be an unforeseen repair. This provision is identical to a requirement implemented for the Houston-Galveston-Brazoria ozone nonattainment area. The requirement will delay emissions of NOX from testing of these engines until after noon in order to help limit ozone formation.

- The adopted provisions provide for the additional NOx emissions reductions plus operational flexibility within the DFW area in the rule. Thus should be given approval.

### Section 117.423, Source Cap

The New SIP adopts a new §117.423 to provide an optional source cap approach to demonstrating compliance with emission specifications of new §117.410. This source cap option is similar to the source cap allowed under existing §117.223 for major sources in ozone nonattainment areas. New §117.423(a) specifies that the owner or operator may achieve compliance with the emission specifications of §117.410 by achieving equivalent NOX emission reductions obtained by compliance with a source cap emission limitation. If an owner or operator elects this option, any equipment category included in the source cap must include all emission units belonging to that category. All emission units not included in the source cap must comply with the requirements of §117.410. New §117.423(b) specifies the equations and procedures for determining the source cap allowable NOX mass emission rate. The equation in new §117.423(b)(1) specifies how to calculate the 30-day rolling average emission cap in pounds per day. This equation is similar to the source cap equation in existing §117.223(b)(1) as it is applicable to the Dallas-Fort Worth ozone nonattainment area. However, the averaging period for determining the historical average daily heat input, variable  $H_i$  in the equation, is defined as the 24 consecutive months between January 1, 2000, and December 31, 2001. In addition, the effective date for an applicable permit emission limit for clause (ii) of variable  $R_i$  of the equation is December 31, 2000. As discussed elsewhere in this preamble, variable “ $i$ ” used in the equation for §117.423(b)(1) has been revised to be a lowercase “ $i$ ” throughout the equation and terms to be consistent. New §117.423(b)(2) specifies the equation for calculating the maximum daily cap, in pounds per day, for all units included in the source cap. The equation in new §117.423(b)(2) is identical to the equation for the maximum daily cap in existing §117.223(b)(2).

New §117.423(b)(3) specifies that each emission unit in the source cap is subject to the requirements of both subsection (b)(1) and (b)(2). In the existing source cap provisions in §117.223, existing §117.223(b)(4) allows the owner or operator to opt in entire classes of exempted units. The New SIP is not allowing this option under new §117.423 because it would have limited or no benefit to sources in the Dallas-Fort Worth eight-hour ozone nonattainment area due to the relatively few exempted units under the rule.

New §117.423(b)(4) specifies the equation for calculating the source cap allowable emission rate, in pounds per hour, for stationary internal combustion engines. The equations in new §117.423(b)(4) and (5) for calculation of the source cap allowable emission rate for stationary internal combustion engines and stationary gas turbines, respectively, are similar to the calculations referenced in existing §117.223(b)(5) and (6). Rather than reference a separate division, the applicable equations are in new §117.423(b)(4) and (5). The equations in new

§117.423(b)(4) and (5) are identical in content to the original calculations referenced for stationary internal combustion engines and stationary gas turbines under the source cap option in existing §117.223, except that the resultant titles are changed to reflect the source cap option in §117.423 and the section cross-reference in the equation in §117.423(b)(5) references new §117.410(b).

New §117.423(c) specifies the continuous emissions monitoring and testing requirements for each source included in the source cap. New §117.423(c)(1)(A) and (B) specifies that for each unit included in the source cap, the owner or operator must comply with the NOX, CO, O<sub>2</sub> (or carbon dioxide), and fuel monitoring requirements of new §117.440, either using a CEMS or a PEMS. Both §117.423(c)(1)(A) and (B) specify that the CEMS or PEMS and the fuel flow meters must be used to demonstrate compliance with the source cap. New §117.423(c)(1)(C) specifies that for units not subject to continuous monitoring requirements, the owner or operator may use the maximum emission rate as measured during testing conducted according to new §117.435(d). New §117.423(c)(1)(C) also specifies that the emission rates for such units are limited to the maximum emission rates obtained from the testing. New §117.423(c)(2) specifies that for each unit equipped with a CEMS, the owner or operator shall either use a PEMS or the maximum emission rate measured by testing according to §117.435(d) to provide substitute emissions data when the CEMS is off-line. Methods specified in 40 CFR §75.46 are required for providing substitute data for PEMS.

New §117.423(d) requires daily records of NOX emissions and total fuel usage for each unit under the source cap, as well as records of the total NOX emissions summation and total fuel usage for all units under the source cap. In addition, the records must be maintained in accordance with the requirements of §117.445.

New §117.423(e) establishes procedures for the reporting of any emission exceedances of the source cap. The procedures are consistent with the reporting requirements under the existing source cap provisions of existing §117.223, including notification of the appropriate regional office within 48 hours, followed by a written report within 21 days, content requirements for the report, and semiannual reporting for monitoring systems. New §117.423(f) specifies that initial compliance with the source cap shall be demonstrated in accordance with the compliance schedule in §117.9030.

Conditions for including a permanently retired, or rendered inoperable unit in the source cap are specified in new §117.423(g). Paragraph (1) specifies that the shutdown must have occurred after December 31, 2000, and paragraph (2) specifies that the source cap emission limit must be calculated according to subsection (b). Paragraph (3) specifies that the actual heat input must be calculated according to subsection (b)(1). However, if the unit was not in service 24 consecutive months between January 1, 2000, and December 31, 2001, paragraph (3) specifies that the actual heat input must be the heat input used to represent the unit's emissions in the attainment demonstration modeling inventory. Also, the maximum heat input must be the maximum heat input certified by the executive director, allowed or possible (whichever is lower) in a 24-hour period. Paragraph (4) requires the owner or operator to certify the operational level and maximum rated capacity of the unit. Paragraph (5) prohibits emission reductions from shutdowns

or curtailments used for netting or offsetting purposes under Chapter 116 from being included in the baseline for establishing the cap.

New §117.423(h) specifies that owners or operators who choose to use the source cap for compliance with §117.410 must include a plan for compliance in the initial control plan required in new §117.450. In addition, the owner or operator must include the identification of election to use the source cap option, identification of all sources included in the source cap, and the method of calculating the annual heat input for each unit included in the source cap. The New SIP is not allowing the alternative plant-wide emission specifications approach for new Subchapter B, Division 4. A source cap approach provides more flexibility than the alternative plant-wide emission specifications because the owner or operator can choose which source categories to include under the source cap approach. The source cap option in new §117.423 provides sufficient flexibility that providing an additional alternative plant-wide emission specification option would have little or no benefit.

- The adopted provisions provide for operational flexibility to the participating source within the DFW area in the rule thus should be given approval.

#### Section 117.425, Alternative Case Specific Specifications

The New SIP adopts a new §117.425 that provides procedures concerning alternative case specific specifications. New §117.425(a) specifies that where it can be demonstrated that an affected unit cannot attain the applicable requirements of the CO or ammonia specifications of new §117.410(c), the executive director may approve emission specifications different from the CO or ammonia specifications in §117.410(c) under the guidelines of new §117.425(a)(1) - (3). New paragraph (1) specifies that the executive director shall consider, on a case-by-case basis, the technological and economic circumstances of the individual unit. New paragraph (2) requires the executive director to determine whether the alternative emission specifications are the lowest specification the unit is capable of achieving after application of controls to meet the NOX emission specifications of new §117.410. New paragraph (3) allows the executive director to consider plant-wide averaging to meet the emission specifications.

Finally, §117.425(b) specifies that any owner or operator affected by the executive director's decision to deny an alternative case specific emission specification may file a motion to overturn the executive director's decision, and that the requirements of 30 TAC §50.139 (Motion to Overturn Executive Director's Decision) apply to §117.425. New subsection (b) also specifies that executive director approval does not necessarily constitute satisfaction of all federal requirements nor eliminate the need for EPA approval in some cases.

- The adopted provisions provide for alternate emissions limitations or operational flexibility to a source within the DFW area as circumstances may warrant.
- Please be aware that per TCEQ's request 117.425 will not become a part of EPA-approved Texas SIP revision.



## Section 117.430, Operating Requirements

The new §117.430 establishes operating requirements for sources subject to new Subchapter B, Division 4. New §117.430(a) requires an owner or operator who has chosen to use the source cap option in new §117.423 to comply with the emission specifications to operate affected units in compliance with those limitations.

New §117.430(b) requires that all units subject to the emission specifications of §117.410(a) or (b) or §117.423 must be operated to minimize NOX emissions, consistent with the emission control techniques selected, over the unit's operating or load range during normal operations and subject to the operating requirements detailed in new §117.430(b)(1) - (7). Paragraph (1) requires boilers, except for wood-fired boilers, to be operated with O<sub>2</sub>, CO, or fuel trim. Paragraph (2) requires boilers and process heaters controlled with forced FGR to be operated such that the proportional design rate of FGR is maintained over the operating range. Paragraph (3) requires boilers and process heaters controlled with induced draft FGR to be operated such that FGR over the operating range is not restricted. New paragraphs (4) and (5) specify that units controlled with steam or water injection or with post-combustion control must be operated such that the steam or water injection rate or chemical agent injection rate is maintained to limit NOX concentrations to less than or equal to concentrations at maximum rated capacity. Paragraph (6) requires an automatic air-fuel ratio (AFR) controller, based on O<sub>2</sub> or CO control, be installed on engines controlled with NSCR and that the controller maintain the AFR within the range required to meet the applicable emission specification. Finally, paragraph (7) requires that each stationary internal combustion engine be tested for proper operation according to new §117.8140(b), which includes quarterly testing of NOX and CO emissions. These operating requirements are consistent with the operating requirements specified under existing §117.208 for the Dallas-Fort Worth ozone nonattainment area.

- The adopted provisions provide for rule consistency concerning Operating Requirements among 117.430, 117.423 and 117.8140 within DFW area, thus should be given approval.

## Section 117.435, Initial Demonstration of Compliance

New §117.435 specifies the requirements for owners or operators of units subject to this division for demonstrating initial compliance with the rule. New §117.435(a) specifies that the owner or operator of any unit subject to the emission specifications of the division must test the unit. Paragraphs (1) and (2) specify that units must be tested for NOX, CO, and O<sub>2</sub> and that units that inject urea or ammonia for NOX control must be tested for ammonia emissions. Paragraph (3) specifies that the testing must be performed in accordance with the compliance schedule in new §117.9030.

New §117.435(b) specifies that compliance tests required by new §117.435(a) must be performed using the methods referenced in new §117.435(d) or (e) and used for determination of initial compliance with the emission specifications of the division and must be in the units of the applicable emission specifications and averaging periods. New §117.435(c) requires that any CEMS or PEMS required by new §117.440 must be installed and operational before conducting the initial demonstration of compliance testing and specifies the minimum requirements for

verifying operational status of the CEMS or PEMS.

New §117.435(d) references new §117.8000 for the compliance test requirements for units operating without CEMS or PEMS. New §117.435(e) specifies the requirements of initial compliance testing for units operating with CEMS or PEMS in accordance with §117.440. The initial demonstration of compliance is performed using the CEMS or PEMS after monitor certification. New paragraphs (1) - (4) specify the procedures for the initial demonstration of compliance using CEMS or PEMS, depending on the unit type, pollutant, applicable averaging time, or whether the unit is included in the optional source cap in new §117.423.

New §117.435(f) references the information that must be included in compliance stack reports as specified by §117.8010 (Compliance Stack Reports).

- The adopted provisions provide for alternate emissions limitations or operational flexibility to a source as circumstances may warrant in the rule. Thus should be given approval.

#### Section 117.440, Continuous Demonstration of Compliance

The New SIP adopts a new §117.440, concerning continuous demonstration of compliance, that specifies the operating, monitoring, and testing required by owners and operators of units subject to the emissions specifications of §117.410 and §117.423. New §117.440(a) requires the installation, calibration, maintenance, and operation of totalizing fuel flow meters for owners and operators of affected units. Based on comments received, the New SIP has revised §117.440(a) to specify that the owner or operator must continuously operate the totalizing fuel flow meter at least 95% of the time when the unit is operating, averaged over a calendar year. As discussed elsewhere in this preamble, the provision is to allow owners and operators time to perform maintenance and calibration on the fuel meters. Adopted §117.440(a)(1) specifies the units that are subject to the fuel metering requirements of new §117.440(a). These units include: boilers; process heaters; duct burners used in turbine exhaust ducts; stationary, reciprocating internal combustion engines; stationary gas turbines; lime kilns; brick and ceramic kilns; heat treating furnaces; reheat furnaces; lead smelting blast (cupola) and reverberatory furnaces; glass and fiberglass melting furnaces; incinerators (excluding vapor streams resulting from vessel cleaning routed to an incinerator); glass, fiberglass, and mineral wool curing ovens; natural gas-fired ovens and heaters; and natural gas-fired dryers used in organic solvent, printing ink, clay, brick, ceramic, calcining, and vitrifying processes. As discussed elsewhere in this preamble, electric arc furnaces used in steel production as well as fiberglass and mineral wool forming ovens are exempt from the adopted rule. Therefore, these unit types are excluded from §117.440(a)(1) and the subparagraphs have been renumbered accordingly. In addition, the language in proposed subparagraph (P), adopted as subparagraph (O), regarding types of natural gas-fired dryers is revised to be consistent with the changes in §117.400(11).

New §117.440(a)(2) lists the alternatives to the fuel flow monitoring requirements. Subparagraph (A) allows units operating with NOX and diluent CEMS to monitor exhaust gas flow rate using 40 CFR Part 60, Appendix B, Performance Specification 6, or 40 CFR Part 75, Appendix A. Subparagraph (B) allows units that vent to a common stack with a NOX and diluent CEMS to share a single totalizing fuel flow meter. Subparagraph (C) allows diesel engines operating with run time meters to satisfy the fuel monitoring requirements through monthly fuel use records maintained for each engine. In addition, based on comments received, the New SIP has added a

new subparagraph (D) to provide an additional alternative to installing fuel meters for stationary reciprocating internal combustion engines. The new subparagraph (D) allows owners or operators to use a continuous monitoring system that continuously monitors horsepower and hours of operation as an alternative to the fuel meters. The monitoring system must be installed, calibrated, maintained, and operated according to the manufacturers' recommended procedures. New §117.440(b) requires owners or operators to install, calibrate, maintain, and operate O<sub>2</sub> monitors for certain units. New §117.440(b)(1) requires O<sub>2</sub> monitors on units in subparagraphs (A) and (B) that are operated with an annual heat input greater than 2.2(10<sup>11</sup>) British thermal units per year. Boilers with a rated heat input greater than or equal to 100 MMBtu/hr are included in paragraph (A). Process heaters with a rated heat input greater than or equal to 100 MMBtu/hr are specified in paragraph (B), with exceptions provided in clauses (i) and (ii). The O<sub>2</sub> monitors required under new §117.440(b) are for process monitoring purposes and new §117.440(b)(2) specifies that the monitors are only required to meet the CEMS requirements of subsection (f) if O<sub>2</sub> is the monitored diluent under subsection (f). If new monitors are required under new §117.440(b), the procedures referenced in §117.440(f) are the appropriate guidance for the monitor location and calibration.

New §117.440(c) specifies the units for which owners and operators shall install, calibrate, maintain, and operate a CEMS or PEMS to monitor NO<sub>x</sub> exhaust. The units listed include: units with a rated heat input greater than or equal to 100 MMBtu/hr that are subject to new §117.410(b); stationary gas turbines with a MW rating greater than or equal to 30 MW operated more than 850 hours per year; units that use a chemical reagent for reduction of NO<sub>x</sub>; units that the owner or operator elects to comply with the NO<sub>x</sub> emission specifications using a lb/MMBtu limit on a 30-day rolling average; lime kilns; and brick kilns and ceramic kilns. These new monitoring requirements are anticipated to require some owners or operators to install CEMS or PEMS on units that currently do not have CEMS or PEMS. The continuous NO<sub>x</sub> monitoring requirements are necessary to ensure compliance with the emission specifications on certain larger units, units that use chemical agents for NO<sub>x</sub> control, and units, such as kilns, that are anticipated to have variable emissions. New §117.440(c)(2) exempts units subject to the NO<sub>x</sub> CEMS requirements of 40 CFR Part 75 because the Acid Rain NO<sub>x</sub> monitoring requirements meet or exceed the minimum requirements in §117.440. In addition, new §117.440(c)(3) specifies the methods to be used to provide substitute emissions compliance data during periods when the NO<sub>x</sub> monitors are off-line.

New §117.440(e) specifies that all owners or operators of unit types listed in §117.440(c)(1) shall monitor CO according to the requirements of new §117.8120. New §117.440(f) specifies that CEMS used for compliance with this section must be operated within the requirements of new §117.8100(a). New §117.440(g) specifies that PEMS used to satisfy the monitoring requirements of §117.440 must predict the pollutant emissions in the units of the applicable emission specification and comply with the requirements of new §117.8100(b). The CEMS and PEMS requirements in new §117.8100 are the existing requirements for CEMS and PEMS incorporated from existing §117.213.

New §117.440(h) specifies that the owner or operator of stationary internal combustion engines not equipped with a CEMS or PEMS must comply with the monitoring requirements of

§117.8140(a). Under §117.8140(a), engines are required to be tested biennially, or within 15,000 hours of operation, similar to the current requirement under existing §117.213(g). New §117.440(i) requires the owner or operator of any stationary gas turbine or stationary internal combustion engine claimed exempt using the exemption in new §117.403(a)(7)(D), (a)(8), or (a)(9) to record the operating time with a non-resettable elapsed run time meter. New §117.440(j), concerning data used for compliance, specifies that the methods required in new §117.440 must be used to demonstrate compliance with the emission specifications after the initial demonstration of compliance. The provisions of subsection (j) also specify that the executive director may use other New SIP compliance methods to determine compliance with the emission specifications. Finally, new §117.440(k) specifies the testing and retesting requirements for units subject to the emission specifications of §117.410. Paragraph (1) specifies that the owner or operator of units that are subject to the emission specifications of §117.410(a) shall test the units as specified in §117.435 in accordance with the schedule specified in new §117.9030(a). Paragraph (2) requires the owner or operator of units subject to the emission specifications of new §117.410(b) to test the units as specified in §117.435 in accordance with the schedule specified in new §117.9030(b). A retesting requirement is specified in paragraph (3) that requires owners or operators to retest any unit subject to the emission specifications of new §117.410(b) after any modification that could be reasonably expected to increase the NOX emission rate. This retesting provision only applies to units that are not equipped with CEMS or PEMS to monitor NOX emissions.

- The adopted provisions provide for means, through use of CEMS and PEMS for monitoring, of enforceability of within DFW area in the rule thus should be given approval

#### Section 117.445, Notification, Recordkeeping, and Reporting Requirements

The New SIP adopts a new §117.445 that specifies the notification, recordkeeping, and reporting requirements for units subject to the emission specifications of this division. New §117.445(a), concerning startup and shutdown records, specifies the recordkeeping requirements for units subject to the startup and/or shutdown provisions of §101.222. The record retention and minimum content requirements are specified in new subsection (a). Subsection (a) also specifies that records must be made available for inspection upon request by the executive director, EPA, and any local air pollution control agency having jurisdiction.

Notification requirements are specified in new §117.445(b). New §117.445(b) requires notification be provided to the appropriate regional office and any local air pollution agency having jurisdiction. The specific notification requirements are listed in new §117.445(b)(1) and (2). Paragraph (1) specifies the notification requirements for units subject to the emission specifications of §117.410(a). Section 117.445(b)(1)(A) requires verbal notification of the date of any testing conducted under new §117.435 at least 15 days prior to the date of testing followed by written notification within 15 days after testing is completed. Section 117.445(b)(1)(B) requires verbal notification of the date of any CEMS or PEMS relative accuracy test audit (RATA) conducted under §117.440 at least 15 days prior to such date followed by written notification within 15 days after testing is completed. The notification requirements specified in new §117.445(b)(2) are applicable to units subject to the emission specifications in new §117.410(b). Under new §117.445(b)(2), written notice is required at least 15 days in advance of

the date of any RATA conducted under §117.440 or test conducted under §117.435. The New SIP is adopting the single written notification requirement under new §117.445(b)(2) to eliminate the requirement for redundant notifications for units subject to the emissions specification in §117.410(b). However, units subject to §117.410(a) are currently regulated under existing §117.206(b)(3) and subject to the existing notification requirements of existing §117.219(b). The notification requirements in new §117.445(b)(1) are identical to the requirements in existing §117.219(b) to maintain consistency with the current requirements applicable to owners or operators subject to new §117.410(a).

New §117.445(c), concerning reporting of test results, specifies the owner or operator of an affected unit shall furnish the Office of Compliance and Enforcement, the appropriate regional office, and any local air pollution control agency having jurisdiction a copy of any testing conducted under §117.435 and any CEMS or PEMS RATA conducted under §117.440. Reports must be submitted within 60 days after completion of such testing or evaluation and not later than the compliance schedule specified in new §117.9030.

New subsection §117.445(d), concerning semiannual reports, requires the owner or operator of a unit required to install a CEMS or PEMS under §117.440 to report in writing to the executive director on a semiannual basis any exceedance of the applicable emission specifications and the associated monitoring system performance. All reports must be postmarked or received by the 30th day following the end of each calendar semiannual period. The information required in the reports is detailed in new §117.445(d)(1) - (5). Paragraph (1) requires the magnitude of excess emissions, computed according to 40 CFR §60.13(h), to be reported, as well as conversion factors used, time period of excess emissions, and unit operating time during the reporting period. Provisions for sources subject to the source cap in new §117.423 are also given. Paragraph (2) lists report requirements for excess emissions during startups, shutdowns, and malfunctions, and paragraph (3) lists report requirements for periods when continuous monitoring systems are inoperative. If no excess emissions or downtime have occurred during the reporting period, paragraph (4) specifies that the report must indicate that no excess emissions or monitoring downtime have occurred. Paragraph (5) provides conditions for summary reports if excess emissions and monitor downtime are limited.

New §117.445(e) specifies the semiannual reporting requirements for owners and operators of any gas-fired engines. Written reports of excess emissions and the air-fuel ratio monitoring system performance must be submitted to the executive director. All reports must be postmarked or received by the 30th day following the end of each calendar semiannual period. Additional specific information required in the reports is detailed in paragraphs (1) and (2) similar to the current requirements specified in the existing §117.219(e)(1) and (2) for engine semiannual reports.

New §117.445(f), concerning recordkeeping, specifies requirements for written or electronic records for owners or operators of units subject to the requirements of this division. Such records must be kept for a period of at least five years and must be made available upon request by authorized representatives of the executive director, EPA, or local air pollution control agencies having jurisdiction. New §117.445(f)(1) specifies that for each unit subject to §117.440(a) the records must include records of annual fuel usage. For each unit using a CEMS or PEMS in accordance with §117.440, new §117.445(f)(2) requires monitoring records of hourly emissions and fuel usage for units complying on a block one-hour average or daily emissions and fuel usage

for units complying with an emission specification enforced on a daily or rolling 30-day average. For stationary internal combustion engines subject to the emission specifications of the division, new §117.445(f)(3) requires the owner or operator to maintain records of emissions measurements required by §117.430(b)(7) and §117.440(h), as well as catalytic converter, air-fuel ratio controller, or other emissions-related control system maintenance, including the date and nature of corrective actions taken. In addition, adopted §117.445(f)(3) also includes a new subparagraph (C) that requires records of daily average horsepower and total daily hours of operation for each engine that the owner or operator elects to use the alternative monitoring system allowed under new §117.440(a)(2)(D). These new recordkeeping requirements are necessary to demonstrate compliance for owner or operators the choose to use the alternative monitoring system in lieu of the fuel metering requirements.

New §117.445(f)(4) specifies owners or operators of units claimed exempt from emission specifications using the exemption of §117.403(a)(7)(D), (a)(8), or (a)(9) must maintain records of monthly hours of operation for exemptions based on hours per year of operation. In addition, for each engine claimed exempt under §117.403(a)(7)(D), written records must be maintained of the purpose of engine operation and if operation was for an emergency situation, identification of the type, start and end times, and dates of the emergency situation.

New §117.445(f)(5) and (6) require owners or operators of applicable units to maintain records of ammonia and CO measurements specified in §117.440(d) and (e), respectively. New §117.445(f)(7) requires owners or operators of units operating with CEMS or PEMS to maintain records of the results of initial certification testing, evaluations, calibrations, checks, adjustments, and maintenance.

New §117.445(f)(8) requires owners or operators to maintain records of the results of performance testing, including initial demonstration of compliance testing conducted in accordance with new §117.435. New §117.445(f)(9) specifies owners or operators of each stationary diesel or dual-fuel engine to maintain records of each time the engine is operated for testing and maintenance, including dates of operation, start and end times of operation, identification of the engine, and total hours of operation for each month and for the most recent 12 consecutive months.

Adopted §117.445(f) also includes a new paragraph (10) that specifies recordkeeping requirements for lime kilns that comply with the site-wide production rate weighted average emission specification in §117.410(b)(7)(A)(ii). New §117.445(f)(10) requires daily records of average NOX emission rates in lb/ton of CaO for each kiln, production rate of CaO for each kiln in tpd, and the site-wide production rate weighted average NOX emission rate in lb/ton of CaO.

- These records (annual fuel usage in 117.445(f)) are air emissions-related, thus are subject to Freedom Of Information Act.
- The adopted provisions provide for means of notification, recordkeeping, and reporting within DFW area thus should be given approval

Section 117.450, Initial Control Plan Procedures

The New SIP adopts a new §117.450, concerning initial control plan procedures. New §117.450(a) requires the owner or operator of any unit at a major source of NOX in the Dallas-Fort Worth eight-hour ozone nonattainment area that is subject to §117.410(b) to submit an initial control plan. New §117.450(a)(1) specifies that the control plan must include a list of all combustion units at the account that are listed in §117.410(b). The list must include for each unit the maximum rated capacity, anticipated annual capacity factor, estimated or measured NOX emission data in the units associated with the category of equipment from §117.410(b), the method of determination for the NOX emission data, the facility identification number and emission point number as submitted to the Industrial Emissions Assessment Section of the New SIP, and the emission point number as listed on the Maximum Allowable Emissions Rate Table of any applicable New SIP permit. New §117.450(a)(2) requires the initial control plan to include the identification of all units with a claimed exemption from the emission specifications in §117.410(b) and the rule basis for the claimed exemption. New §117.450(a)(3) requires the initial control plan to include the identification of the election to use the source cap emission limit in §117.423 to achieve compliance with this rule and a list of the units to be included in the source cap. New §117.450(a)(4) requires the initial control plan to include a list of units to be controlled and the type of control to be applied for each unit, including an anticipated construction schedule. New §117.450(a)(5) requires the initial control plan to include a list of units requiring operating modifications to comply with §117.430(b) and the type of modification to be applied for each unit, including an anticipated construction schedule. New §117.450(a)(6) specifies that for units required to install totalizing fuel flow meters in accordance with §117.440(a), the initial control plan must indicate whether the fuel meters are currently in operation, and if so, whether they have been installed as a result of the requirements of this rule. New §117.450(a)(7) specifies that for units required to install CEMS or PEMS in accordance with §117.440, the initial control plan must indicate whether the devices are currently in operation, and if so, whether they have been installed as a result of the requirements of this rule. New §117.450(b) specifies the initial control plan must be submitted to the Office of Compliance and Enforcement, the appropriate regional office, and the Chief Engineer's Office by the applicable date specified for initial control plans in new §117.9030(b). Control plans submitted to the Chief Engineer's Office should be submitted to the attention of the Air Quality Planning Section. Finally, new §117.450(c) specifies that for units located in Dallas, Denton, Collin, and Tarrant Counties, subject to new §117.210, the owner or operator may elect to submit the most recent revision of the final control plan required by new §117.254 in lieu of the initial control plan required by subsection (a).

- The adopted provisions provide for the process of enforceability of the rule within DFW area thus should be given approval

#### Section 117.454, Final Control Plan Procedures for Attainment Demonstration Emission Specifications

The New SIP adopts a new §117.454 that requires the owner or operator of any unit subject to new §117.410(b) at a major source of NOX to submit a final control report to show compliance with the requirements of §117.410. New §117.454(a)(1) - (5) specify the content requirements of the report. The final control report must identify which sections are used to demonstrate

compliance. In addition, the report must include: the method of NOX control for each unit; the emissions measured by testing required in §117.435; the submittal date, and whether sent to the central or the regional office (or both), of any compliance stack test report or RATA report required by §117.435 not being submitted concurrently with the final compliance report; and the specific rule citation for any unit with a claimed exemption from the emission specifications of §117.410. New §117.454(b)(1) - (3) specifies that for sources complying with §117.423, in addition to the requirements of subsection (a), the owner or operator shall submit: the calculations used to calculate the 30-day average and maximum daily source cap allowable emission rates; the average daily heat input, Hi, specified in §117.423(b)(1); the maximum daily heat input, Hmi, specified in §117.423(b)(1); the method of monitoring emissions; the method of providing substitute emissions data when the NOX monitoring system is not providing valid data; and an explanation of the basis of the values of Hi and Hmi. New §117.454(c) specifies the report must be submitted to the Office of Compliance and Enforcement, the appropriate regional office, and the Chief Engineer's Office by the applicable date specified for final control plans in §117.9030(b). Control plans submitted to the Chief Engineer's Office should be submitted to the attention of the Air Quality Planning Section. The plan must be updated with any emission compliance measurements submitted for units using CEMS or PEMS and complying with the source cap rolling 30-day average emission limit, according to the applicable schedule given in §117.9030.

- The adopted provisions provide for the process of applying additional NOx emissions reduction within DFW area in the rule thus should be given approval

#### Section 117.456, Revision of Final Control Plan

The New SIP adopts a new §117.456, concerning revision of final control plan, to specify the conditions under which a revised final control plan may be submitted by the owner or operator, along with any required permit applications. The section specifies that such a plan must adhere to the requirements and the final compliance dates of the division, and that for sources complying with §117.410, replacement new units may be included in the control plan. Also, for sources complying with §117.423, any new unit must be included in the source cap if the unit belongs to an equipment category that is included in the source cap. Finally, new §117.456 specifies that the revision of the final control plan is subject to the review and approval of the executive director.

- The adopted provisions provide for operational flexibility to a participating source within the DFW area by modification its final plan. Thus should be given approval.

### **SUBCHAPTER C: COMBUSTION CONTROL AT MAJOR UTILITY ELECTRIC GENERATION SOURCES IN OZONE NONATTAINMENT AREAS**

#### Section 117.1000, Applicability

The new SIP adopts a new §117.1000 that incorporates the applicability rule language in existing §117.101 applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.1000(a) incorporates the rule language in the existing §117.101(a) and (a)(1) – (4). The list of applicable



units in existing §117.101(a)(1) – (4), including utility boilers, auxiliary steam boilers, stationary gas turbines, and duct burners used in turbine exhaust ducts, is incorporated into the new §117.1000(a). New §117.1000(a)(1) and (2) incorporate the language regarding owners or operators of the applicable units. New §117.1000(a)(1) incorporates the rule language from existing §117.101(a) concerning the applicability related to units owned or operated by a municipality or a PUC-regulated utility. In addition, the new SIP adopts a new §117.1000(a)(2) concerning the applicability of the division to electric power generating systems owned or operated by an electric cooperative, municipality, river authority, or public utility. This change is intended to clarify the applicability of the rule and does not expand the applicability of the rule. Based on comments received and as discussed elsewhere in this preamble, independent power producers were removed from adopted §117.1000(a)(2) to avoid a potential expansion in the applicability. Finally, the new SIP also adopts a new §117.1000(b) that incorporates the rule language in existing §117.101(b).

- The adopted provisions are necessary for rule language and consistency purposes within the Beaumont-Port Arthur area. Thus should be given approval.

#### Section 117.1003, Exemptions

The new SIP adopts a new §117.1003 that incorporates the exemptions in the existing §117.103 applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.1003(a) – (c) incorporate the exemptions in the existing §117.103(a) – (c). In addition, for new §117.1003(c)(1), the new SIP revises the existing language in §117.103(c)(1) to expand the provisions relating to emergency fuel oil firing exemptions to emergency operating conditions declared by the Southeastern Electric Reliability Council, and to remove reference to the Southwest Power Pool. This change is necessary because the Southeastern Electric Reliability Council area overlaps the Beaumont-Port Arthur ozone nonattainment area. The Southwest Power Pool area does not apply to the Beaumont-Port Arthur ozone nonattainment area.

- The adopted provisions provide clarity as to what sources are not subject to regulations within the Beaumont-Port Arthur area. Thus should be given approval.

#### Section 117.1005, Emission Specifications for Reasonably Available Control Technology (RACT)

The new SIP adopts a new §117.1005 that incorporates the rule language in the existing §117.105, relating to emission specifications for RACT, applicable to the Beaumont-Port Arthur ozone nonattainment area. The new SIP adopts a new §117.1005(a) – (l) that incorporates the rule language in the existing §117.105(a) – (l). The new SIP adopts a new equation in §117.1005(d) that incorporates the existing equation for calculating the rolling 24-hour heat input weighted average emission specification in the existing §117.105(d). The new equation in §117.1005(d) presents the equation in a format consistent with other figures in Chapter 117 and provides a written description of all the terms used in the equation. In addition, for new §117.1005(e), the new SIP uses the term auxiliary steam boilers as opposed to auxiliary boilers used in the existing language to be consistent with the definition in §117.10. For new §117.1005(i), the new SIP changes the word “ten” to the numeral “10” regarding the MW rating

for stationary gas turbines subject to the CO emission specification in new §117.1005(i). Finally, new §117.1005(l) incorporates the rule language from existing §117.105(l) and (l)(1).

- The adopted provisions provide for applying RACT for NO<sub>x</sub> emissions reduction within the Beaumont-Port Arthur area in the rule thus should be given approval

#### Section 117.1010, Emission Specifications for Attainment Demonstration

The new SIP adopts a new §117.1010 that incorporates the rule language in the existing §117.106, relating to emission specifications for attainment demonstrations, applicable to the Beaumont-Port Arthur ozone nonattainment area.

The new SIP adopts a new §117.1010(a), relating to NO<sub>x</sub> emission specifications, that incorporates the rule language and emission specifications in the existing §117.106(a). New §117.1010(b) incorporates the rule language concerning related emissions in the existing §117.106(d). In addition, for new §117.1010(b)(2), the new SIP changes the emissions specification for ammonia from the word “ten” to the numeral “10.” As previously discussed in this preamble, this change is necessary to ensure consistent enforcement of the emission specification. New §117.1010(c), relating to compliance flexibility, incorporates the rule language in the existing §117.106(e) and (e)(1) – (3).

- The adopted provisions provide for the additional NO<sub>x</sub> emissions reductions plus operational flexibility within the Beaumont-Port Arthur area in the rule. Thus should be given approval.
- Please be aware that per TCEQ’s request 117.1010(b) will not become a part of EPA-approved Texas SIP revision.

#### Section 117.1015, Alternative System-Wide Emission Specifications

The new SIP adopts a new §117.1015 that incorporates the rule language in the existing §117.107, relating to alternative system-wide emission specifications, applicable to the Beaumont-Port Arthur ozone nonattainment area. The new SIP adopts a new §117.1015(a) – (d) that incorporate the rule language in the existing §117.107(a) – (d). In addition, for new §117.1015, the new SIP is revising language in existing §117.107 referencing system-wide emission limit or system-wide emission limitation to specify system-wide emission specification. These changes are to provide consistency and clarity in new §117.1015 and to be consistent with the section title and the change to the definition of system-wide emission limit in §117.10 discussed previously in this preamble. New §117.1015(d) incorporates the rule language from existing §117.107(d). In addition, existing §117.107(d)(1) and (2) include required calculations written in paragraph form rather than in equation form. The new SIP is reformatting the calculations in a mathematical formula rather than the paragraph form to present the equations in a format consistent with other equations in Chapter 117 and provide a written description of all the terms used in the equation. The new equations are identical in content to the existing required calculations in paragraph form. The new equation in §117.1015(d)(1) incorporates the calculation for allowable system-wide NO<sub>x</sub> emission specification for each affected utility boiler in the existing §117.107(d)(1). The

new equations in §117.1015(d)(2) incorporate the calculation for the allowable NOX emission rate for each affected stationary gas turbine in the existing §117.107(d)(2) as well as the existing equation for the in-stack NOX concentration term in the existing §117.107(d)(2).

- The adopted provisions provide for operational flexibility to the participating system-wide source within the Beaumont-Port Arthur area in the rule. Thus should be given approval.

#### Section 117.1020, System Cap

The new SIP adopts a new §117.1020 that incorporates the rule language in the existing §117.108, relating to system cap, applicable to the Beaumont-Port Arthur ozone nonattainment area. The new SIP adopts new §117.1020(a) – (k) that incorporate the rule language in the existing §117.108(a) – (k). In addition, the new SIP adopts new equations in §117.1020(c) that incorporate the equations in existing §117.108(c) and present the equations in a format consistent with other equations in Chapter 117. The new equations in §117.1020(c) include only the information applicable to the Beaumont-Port Arthur ozone nonattainment area. The new equation in §117.1020(c)(1) incorporates the equation for the rolling 30-day average emission cap in the existing §117.108(c)(1). The new equation in §117.1020(c)(2) incorporates the equation for the maximum daily emission cap in the existing §117.108(c)(2).

The new SIP adopts a new §117.1020(k) that incorporates the requirements of the existing §117.108(k). The new §117.1020(k) changes source cap to system cap to be consistent with the section. Also, for new §117.1020(k), the new SIP replaces upset period with the language “emissions event, as defined in §101.1 of this title (relating to Definitions) . . .” This change is necessary to update the rule to current terminology used by the new SIP.

The new SIP adopts a new §117.1020(l) relating to the use of emissions credits, that incorporates the rule language from existing §117.109, System Cap Flexibility. New §117.1020(m) relating to the sale and transfer of an electric generating system, incorporates the rule language from existing §117.110, Change of Ownership – System Cap.

- The adopted provisions provide for operational flexibility to the participating system source within the Beaumont-Port Arthur area in the rule thus should be given approval

#### Section 117.1025, Alternative Case Specific Specifications

The new SIP adopts a new §117.1025 that incorporates the rule language in the existing §117.121, relating to alternative case specific specifications, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.1025(a) and (b) incorporate the rule language in the existing §117.121(a) and (b). In addition, the new §117.1025(a) omits the provision in the existing §117.121(a)(4) because the Engineering Services Team no longer exists within the TCEQ.

- The adopted provisions provide for alternate emissions limitations or operational flexibility to a source within the Beaumont-Port Arthur area as circumstances may warrant.
- Please be aware that per TCEQ’s request 117.1025 will not become a part of EPA-

approved Texas SIP revision.

#### Section 117.1035, Initial Demonstration of Compliance

The new SIP adopts a new §117.1035 that incorporates the rule language in the existing §117.111, relating to initial demonstration of compliance, applicable to the Beaumont-Port Arthur ozone nonattainment area.

- The adopted provisions provide for enforceability of the rule within the Beaumont-Port Arthur area. Thus should be given approval.

#### Section 117.1040, Continuous Demonstration of Compliance

The new SIP adopts a new §117.1040 that incorporates the rule language in the existing §117.113, relating to continuous demonstration of compliance, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.1040(a) incorporates the rule language in the existing §117.113(a), relating to NOX monitoring. New §117.1040(b) incorporates the CO monitoring requirements from existing §117.113(b). The specific requirements and methods in the existing §117.113(b) appear in the new §117.8120, relating to CO monitoring, and subsequently have been omitted from new §117.1040(b) and replaced with a reference to the new §117.8120. Similarly, the requirements for CEMS in the existing §117.113(c)(1) and (2) appear in the new §117.8110(a), relating to emission monitoring system requirements for utility electric generation sources. Therefore, the new §117.1040(c) omits the specific requirements of existing §117.113(c)(1) and (2) and references to the new §117.8110(a) [omission of requirements is actually a transfer of the requirement].

New §117.1040(d) incorporates the rule language from existing §117.113(d), concerning acid rain peaking units. New §117.1040(e) incorporates the rule language from existing §117.113(e), concerning auxiliary boilers. In addition, for new §117.1040(e), the new SIP revises the term auxiliary boiler to auxiliary steam boiler to be consistent with the definition in §117.10.

The new SIP adopts a new §117.1040(f) that incorporates the requirements for PEMS from existing §117.113(f). New §117.1040(f)(1) incorporates the rule language from existing §117.113(f)(1). The requirements in the existing §117.113(f)(2) – (4) appear in the new §117.8110(b), relating to emission monitoring system requirements for utility electric generation sources, and subsequently have been omitted from the new §117.1040(f) and replaced with a reference to §117.8110(b) in new §117.1040(f)(2). New §117.1040(g) – (j) incorporate the rule language applicable to the Beaumont-Port Arthur ozone nonattainment area from existing §117.113(g) – (j), respectively. New §117.1040(k) incorporates the rule language from existing §117.113(k) and (k)(1), and new §117.1040(l) incorporates the rule language from existing §117.113(l).

- The adopted provisions provide for means, through use of CEMS and PEMS for monitoring, of enforceability of the rule within the Beaumont-Port Arthur area. Thus should be given approval.

#### Section 117.1045, Notification, Recordkeeping, and Reporting Requirements

The new SIP adopts a new §117.1045 that incorporates the requirements in the existing §117.119, relating to notification, recordkeeping, and reporting requirements, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.1045(a) - (e) incorporate the rule language from existing §117.119(a) – (e). In addition, for new §117.1045(a), the new SIP replaces the language “the startup and/or shutdown exemptions allowed under §101.222” with “the startup and/or shutdown provisions of §101.222 . . .” The reference to exemptions is not applicable to §101.222 and the change is necessary to clarify new §117.1045(a).

Section 117.1052, Final Control Plan Procedures for Reasonably Available Control Technology

The new SIP adopts a new §117.1052 that incorporates the rule language in the existing §117.115, relating to final control plan procedures for RACT, applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.1052(a), (b), and (c) incorporate the rule language from existing §117.115(a), (b) and (d), respectively. In addition, the new SIP revises the section title reference in new §117.1052(a)(2)(B) to reference the correct title “Alternative System-Wide Emission Specifications.” Also, the new SIP omits the existing §117.115(c), relating to electronic submission and formatting requirements for the control plan, from the new §117.1052. Existing §117.115 and new §117.1052 specify the content requirements for the control plan. Therefore, a mandatory format for the control plan information is not necessary.

- The adopted provisions provide for means of notification, recordkeeping, and reporting for sources within the Beaumont-Port Arthur area. Thus should be given approval.

Section 117.1054, Final Control Plan Procedures for Attainment Demonstration Emission Specifications

The new SIP adopts a new §117.1054 that incorporates the rule language in the existing §117.116, relating to final control plan procedures for attainment demonstration emission specifications, applicable to the Beaumont-Port Arthur ozone nonattainment area.

- The adopted provisions provide for the process of applying additional NO<sub>x</sub> emissions reduction within the Beaumont-Port Arthur area in the rule thus should be given approval

Section 117.1056, Revision of Final Control Plan

The new SIP adopts a new §117.1056 that incorporates the rule language in the existing §117.117, relating to revision of final control plan, applicable to the Beaumont-Port Arthur ozone nonattainment area.

- The adopted provisions provide for operational flexibility to a participating source within the Beaumont-Port Arthur area by modification its final plan. Thus should be given approval.

Section 117.1100, Applicability

The new SIP adopts a new §117.1100 that incorporates the applicability rule language in the

existing §117.101 applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.1100(a) incorporates the rule language in the existing §117.101(a) and (a)(1) – (4). The list of applicable units in existing §117.101(a)(1) – (4), including utility boilers, auxiliary steam boilers, stationary gas turbines, and duct burners used in turbine exhaust ducts, is incorporated into the new §117.1100(a). New §117.1100(a)(1) and (2) incorporate the language regarding owners or operators of the applicable units. New §117.1100(a)(1) incorporates the rule language from existing §117.101(a) concerning the applicability related to units owned or operated by a municipality or a PUC-regulated utility. In addition, the new SIP adopts a new §117.1100(a)(2) concerning the applicability of the division to electric power generating systems owned or operated by an electric cooperative, independent power producer, municipality, river authority, or public utility. As previously indicated in this preamble, this change is intended to clarify the applicability of the rule and does not expand the applicability of the rule. Based on comments received and as discussed elsewhere in this preamble, independent power producers were removed from adopted §117.1100(a)(2) to avoid a potential expansion in the applicability. The new SIP adopts a new §117.1100(b) that incorporates the rule language in existing §117.101(b). Finally, the new SIP adopts a new §117.1100(c) that specifies the provisions of the new Subchapter C, Division 2 no longer apply to any electric generating facility in Collin, Dallas, Denton, and Tarrant Counties that is subject to the emission specifications in new §117.1310, after the appropriate date in the new §117.9130, relating to the compliance schedule for Dallas-Fort Worth eight-hour ozone nonattainment area utility electric generation sources. The emission specifications in new §117.1310 and all other associated requirements in the new Subchapter C, Division 4, entitled Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Utility Electric Generation Sources, discussed later in this preamble, supersede the requirements of Subchapter C, Division 2 after the compliance date for the new rules in Subchapter C, Division 4. Therefore, the new SIP adopts new §117.1100(c) to avoid overlapping requirements from the two separate divisions.

- The adopted provisions are necessary for rule language consistency, and finding out what sources within the DFW area are subject to regulations. Thus should be given approval.

#### Section 117.1103, Exemptions

The new SIP adopts a new §117.1103 that incorporates the exemptions in the existing §117.103, relating to exemptions for utility electric generation sources in ozone nonattainment areas, applicable to the Dallas-Fort Worth ozone nonattainment area. The new SIP adopts a new §117.1103(a) – (c) that incorporate the rule language in the existing §117.103(a) – (c). In addition, for new §117.1103(c)(1), relating to emergency fuel oil firing exemptions, the new SIP omits reference to the Southwest Power Pool for the emergency fuel oil firing exemption provisions because the Southwest Power Pool area does not apply to the Dallas-Fort Worth ozone nonattainment area.

- The adopted provisions provide clarity as to what sources within the DFW area are not subject to regulations. Thus should be given approval.

#### Section 117.1105, Emission Specifications for Reasonably Available Control Technology (RACT)

The new SIP adopts a new §117.1105 that incorporates the rule language in the existing §117.105, relating to emission specifications for RACT, applicable to the Dallas-Fort Worth ozone nonattainment area. The new SIP adopts a new §117.1105(a) - (l) that incorporate the rule language in the existing §117.105(a) – (l). The new SIP adopts a new equation in §117.1105(d) that incorporates the existing equation for calculating the rolling 24-hour heat input weighted average emission specification in the existing §117.105(d). The new equation in §117.1105(d) presents the equation in a format consistent with other figures in Chapter 117 and provides a written description of all the terms used in the equation. In addition, for new §117.1105(e), the new SIP uses the term auxiliary steam boilers as opposed to auxiliary boilers used in the existing language to be consistent with the definition in §117.10. For new §117.1105(i), the new SIP changes the word “ten” to the numeral “10” regarding the MW rating for stationary gas turbines subject to the CO emission specification in new §117.1105(i). Finally, new §117.1105(l) incorporates the rule language from existing §117.105(l) and (l)(2).

- The adopted provisions provide for applying RACT for NO<sub>x</sub> emissions reduction within the DFW area in the rule thus should be given approval

#### Section 117.1110, Emission Specifications for Attainment Demonstration

The new SIP adopts a new §117.1110 relating to emission specifications for attainment demonstration, that incorporates the rule language in the existing §117.106, relating to emission specifications for attainment demonstrations, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.1110(a), relating to NO<sub>x</sub> emission specifications, incorporates the emission specifications and rule language in the existing §117.106(b). In addition, for new §117.1110(a)(1) and (2), the new SIP changes the terms large DFW system and small DFW system in existing §117.106(b) to large utility system and small utility system to be consistent with the changes to the definitions in new §117.10(24) and (44). New §117.1110(a)(1) incorporates the existing emission specification for boilers that are part of a large utility system, as defined in the new §117.10(24), and new §117.1110(a)(2) incorporates the existing emission specification for boilers that are part of a small utility system, as defined in new §117.10(44). Both new §117.1110(a)(1) and (2) incorporate the provisions from existing §117.106(b) concerning use of system cap and use of emission credits for compliance. In addition, new §117.1110(a)(2) incorporates the provision in existing §117.106(b) that specifies that the annual heat input exemption is not applicable to a small utility system. The reference in existing §117.106(b) also incorrectly references §117.103(2) for this heat input exemption. Therefore, for new §117.1110(a)(2), the new SIP revises the reference to cite new §117.1103(a)(2), the correct reference for the annual heat input exemption. The new SIP adopts a new §117.1110(b) that incorporates the rule language concerning related emissions in the existing §117.106(d). In addition, for new §117.1110(b)(2), the new SIP changes the emissions specification for ammonia from the word “ten” to the numeral “10.” As previously discussed in this preamble, this change is necessary to ensure consistent enforcement of the emission specification. Finally, new §117.1110(c), relating to compliance flexibility, incorporates the rule language in the existing §117.106(e) and (e)(1) – (3).

- The adopted provisions provide for the additional NO<sub>x</sub> emissions reductions plus operational flexibility within the DFW area in the rule. Thus should be given approval.

#### Section 117.1115, Alternative System-Wide Emission Specifications

The new SIP adopts a new §117.1115 that incorporates the specifications in the existing §117.107, relating to alternative system-wide emission specifications, applicable to the Dallas-Fort Worth ozone nonattainment area. The new SIP adopts a new §117.1115(a) – (d) that incorporates the rule language in the existing §117.107(a) – (d). In addition, for new §117.1115, the new SIP is revising language in existing §117.107 referencing system-wide emission limit or system-wide emission limitation to specify system-wide emission specification. These changes are to provide consistency and clarity in new §117.1115 and to be consistent with the section title and the change to the definition of system-wide emission limit in §117.10 discussed previously in this preamble. New §117.1115(d) incorporates the rule language from existing §117.107(d). In addition, existing §117.107(d)(1) and (2) include required calculations written in paragraph form rather than in equation form. The new SIP is reformatting the calculations in a mathematical formula rather than the paragraph form to present the equations in a format consistent with other equations in Chapter 117 and provide a written description of all the terms used in the equation. The new equations are identical in content to the existing required calculations in paragraph form. The new equation in §117.1115(d)(1) incorporates the calculation for allowable system-wide NO<sub>x</sub> emission specification for each affected utility boiler in the existing §117.107(d)(1). The new equations in §117.1115(d)(2) incorporate the calculation for the allowable NO<sub>x</sub> emission rate for each affected stationary gas turbine in the existing §117.107(d)(2), as well as the existing equation for the in-stack NO<sub>x</sub> concentration term in the existing §117.107(d)(2).

- The adopted provisions provide for alternate emissions limitations or operational flexibility to a system-wide participating group of utilities within the DFW area as circumstances may warrant in the rule. Thus should be given approval

#### Section 117.1120, System Cap

The new SIP adopts a new §117.1120 that incorporates the requirements in the existing §117.108, relating to system cap, applicable to the Dallas-Fort Worth ozone nonattainment area. The new SIP adopts new §117.1120(a) – (k) that incorporate the rule language in the existing §117.108(a) – (k). In addition, the new SIP adopts new equations in §117.1120(c) that incorporate the equations in existing §117.108(c) and present the equations in a format consistent with other equations in Chapter 117. The new equations in §117.1120(c) include only the information applicable to the Dallas-Fort Worth ozone nonattainment area. The new equation in §117.1120(c)(1) incorporates the equation for the rolling 30-day average emission cap in the existing §117.108(c)(1). The new equation in §117.1120(c)(2) incorporates the equation for the maximum daily emission cap in the existing §117.108(c)(2). The new SIP adopts a new §117.1120(k) that incorporates the requirements of the existing §117.108(k). The new §117.1120(k) changes source cap to system cap to be consistent with the section. The new SIP adopts a new §117.1120(l) relating to the use of emissions credits, that incorporates the rule language from existing §117.109, concerning system cap flexibility. New §117.1120(m), relating



to the sale and transfer of an electric generating system, incorporates the rule language from existing §117.110, concerning change of ownership.

- The adopted provisions provide for operational flexibility to the participating utilities within the DFW area in the rule thus should be given approval

#### Section 117.1125, Alternative Case Specific Specifications

The new SIP adopts a new §117.1125 that incorporates the specifications in the existing §117.121, relating to alternative case specific specifications, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.1125(a) and (b) incorporate the rule language in the existing §117.121(a) and (b). In addition, the new §117.1125(a) omits the provision in the existing §117.121(a)(4) because the Engineering Services Team no longer exists within the TCEQ.

- The adopted provisions provide for alternate emissions limitations or operational flexibility to a utility within the DFW area as circumstances may warrant.
- Please be aware that per TCEQ's request 117.1125 will not become a part of EPA-approved Texas SIP revision.

#### Section 117.1135, Initial Demonstration of Compliance

The new SIP adopts a new §117.1135 that incorporates the requirements in the existing §117.111, relating to initial demonstration of compliance, applicable to the Dallas-Fort Worth ozone nonattainment area.

- The adopted provisions provide for methods and requirements that establish means of determining compliance with NO<sub>x</sub> emissions requirements to a utility within the DFW area. Thus should be given approval.

#### Section 117.1140, Continuous Demonstration of Compliance

The new SIP adopts a new §117.1140 that incorporates the rule language in existing §117.113, relating to continuous demonstration of compliance, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.1140(a) incorporates the rule language in the existing §117.113(a), relating to NO<sub>x</sub> monitoring. New §117.1140(b) incorporates the CO monitoring requirements from existing §117.113(b). The specific requirements and methods in the existing §117.113(b) appear in new §117.8120, relating to CO monitoring, and subsequently have been omitted from new §117.1140(b) and replaced with a reference to the new §117.8120. Similarly, the requirements for CEMS in the existing §117.113(c)(1) and (2) appear in the new §117.8110(a), relating to emission monitoring system requirements for utility electric generation sources. Therefore, the new §117.1140(c) omits the specific requirements of existing §117.113(c)(1) and (2) and references the new §117.8110(a). New §117.1140(d) incorporates the rule language from existing §117.113(d), concerning acid rain peaking units. New

§117.1140(e) incorporates the rule language from existing §117.113(e), concerning auxiliary boilers. In addition, for new §117.1140(e), the new SIP revises the term auxiliary boiler to auxiliary steam boiler to be consistent with the definition in §117.10. The new SIP adopts a new §117.1140(f) that incorporates the requirements for PEMS from existing §117.113(f). New §117.1140(f)(1) incorporates the rule language from existing §117.113(f)(1). The requirements in the existing §117.113(f)(2) – (4) appear in the new §117.8110(b), relating to emission monitoring system requirements for utility electric generation sources and subsequently have been omitted from the new §117.1140(f) and replaced with a reference to §117.8110(b) in new §117.1140(f)(2). New §117.1140(g) – (j) incorporate the rule language applicable to the Dallas-Fort Worth ozone nonattainment area from existing §117.113(g) – (j), respectively. New §117.1140(k) incorporates the rule language from existing §117.113(k) and (k)(1), and new §117.1140(l) incorporates the rule language from existing §117.113(l).

- The adopted provisions provide for means of enforceability of monitoring requirements, through use of CEMS and PEMS, within DFW area in the rule thus should be given approval

#### Section 117.1145, Notification, Recordkeeping, and Reporting Requirements

The new SIP adopts a new §117.1145 that incorporates the rule language in the existing §117.119, relating to notification, recordkeeping, and reporting requirements, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.1145(a) - (e) incorporate the rule language from existing §117.119(a) – (e).

- The adopted provisions provide for means of notification, recordkeeping, and reporting within DFW area thus should be given approval.

#### Section 117.1152, Final Control Plan Procedures for Reasonably Available Control Technology

The new SIP adopts a new §117.1152 that incorporates the requirements in the existing §117.115, relating to final control plan procedures for RACT, applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.1152(a), (b), and (c) incorporate the rule language from existing §117.115(a), (b) and (d), respectively. In addition, the new SIP revises the section title reference in new §117.1152(a)(2)(B) to reference the correct title “Alternative System-Wide Emission Specifications.” Also, the new SIP omits the existing §117.115(c), relating to electronic submission and formatting requirements for the control plan, from the new §117.1152. Existing §117.115 and new §117.1152 specify the content requirements for the control plan. Therefore, a mandatory format for the control plan information is not necessary.

- The adopted provisions provide for the process of enforceability of the RACT requirements to utilities within the DFW area in the rule thus should be given approval

#### Section 117.1154, Final Control Plan Procedures for Attainment Demonstration Emission Specifications

The new SIP adopts a new §117.1154 that incorporates the rule language in existing §117.116, relating to final control plan procedures for attainment demonstration emission specifications, applicable to the Dallas-Fort Worth ozone nonattainment area.

- The adopted provisions provide for the process of applying additional NO<sub>x</sub> emissions reduction to utilities within DFW area in the rule thus should be given approval

#### Section 117.1156, Revision of Final Control Plan

The new SIP adopts a new §117.1156 that incorporates the requirements in the existing §117.117, relating to revision of final control plan, applicable to the Dallas-Fort Worth ozone nonattainment area.

- The adopted provisions provide for operational flexibility to a participating utility within DFW area by modification its final plan . Thus should be given approval.

#### Section 117.1200, Applicability

The new SIP adopts a new §117.1200, that incorporates the provisions in the existing §117.101, relating to applicability, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.1200(a) incorporates the rule language in the existing §117.101(a) and (a)(1) – (4). The list of applicable units in existing §117.101(a)(1) – (4), including utility boilers, auxiliary steam boilers, stationary gas turbines, and duct burners used in turbine exhaust ducts, is incorporated into the new §117.1200(a). New §117.1200(a)(1) and (2) incorporate the language regarding owners or operators of the applicable units. New §117.1200(a)(1) incorporates the rule language from existing §117.101(a) concerning the applicability related to units owned or operated by a municipality or a PUC-regulated utility. In addition, the new SIP adopts a new §117.1200(a)(2) concerning the applicability of the division to electric power generating systems owned or operated by an electric cooperative, independent power producer, municipality, river authority, or public utility. As indicated elsewhere in this preamble, this change is intended to clarify the applicability of the rule and does not expand the applicability of the rule. Based on comments received and as discussed elsewhere in this preamble, independent power producers were removed from adopted §117.1200(a)(2) to avoid a potential expansion in the applicability. The new SIP adopts a new §117.1200(b) that incorporates the rule language in existing §117.101(b).

- The adopted provisions are necessary for clarity and applicability determination purposes for utilities within the Houston-Galveston-Brazoria area. Thus should be given approval.

#### Section 117.1203, Exemptions

The new SIP adopts a new §117.1203 that incorporates the exemptions in the existing §117.103, relating to exemptions for utility electric generation sources in ozone nonattainment areas, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.1203(a) – (c) incorporate the exemptions in the existing §117.103(a) – (c). In addition, for new

§117.1203(c)(1), the new SIP revises the existing language in §117.103(c)(1) to expand the provisions relating to emergency fuel oil firing exemptions to emergency operating conditions declared by the Southeastern Electric Reliability Council and to remove reference to the Southwest Power Pool. This change is necessary because the Southeastern Electric Reliability Council area does overlap the Houston-Galveston-Brazoria ozone nonattainment area. The Southwest Power Pool area does not apply to the Houston-Galveston-Brazoria ozone nonattainment area.

- The adopted provisions provide clarity as to what sources are not subject to regulations within the Houston-Galveston-Brazoria area. Thus should be given approval.

#### Section 117.1205, Emission Specifications for Reasonably Available Control Technology (RACT)

The new SIP adopts a new §117.1205 that incorporates the specifications in the existing §117.105, relating to emission specifications for RACT, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. The new SIP adopts a new §117.1205(a) - (l) that incorporates the rule language in the existing §117.105(a) – (l).

The new SIP adopts a new equation in §117.1205(d) that incorporates the existing equation for calculating the rolling 24-hour heat input weighted average emission specification in the existing §117.105(d). The new equation in §117.1205(d) presents the equation in a format consistent with other figures in Chapter 117 and provides a written description of all the terms used in the equation. In addition, for new §117.1205(e), the new SIP uses the term auxiliary steam boilers as opposed to auxiliary boilers used in the existing language to be consistent with the definition in §117.10. For new §117.1205(i), the new SIP changes the word “ten” to the numeral “10” regarding the MW rating for stationary gas turbines subject to the CO emission specification in new §117.1205(i). Finally, new §117.1205(l) incorporates the rule language from existing §117.105(l) and (l)(3).

- The adopted provisions provide for applying RACT for NO<sub>x</sub> emissions reduction to utilities within the Houston-Galveston-Brazoria area in the rule thus should be given approval

#### Section 117.1210, Emission Specifications for Attainment Demonstration

The new SIP adopts a new §117.1210 that incorporates the rule language in the existing §117.106, relating to emission specifications for attainment demonstrations, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. A new §117.1210(a) incorporates the specifications in the existing §117.106(c). The catch line is also changed to “Emission specifications for the Mass Emission Cap and Trade Program” to more accurately reflect the purpose of the emission specifications in combination with the MECT Program in Chapter 101, Subchapter H, Division 3. New §117.1210(b) incorporates the rule language concerning related emissions in the existing §117.106(d). In addition, for new §117.1210(b)(2), the new SIP changes the emissions specification for ammonia from the word “ten” to the numeral “10.” Consistent with EPA guidance, the new SIP normally enforces emission test and monitoring results to the same significant figures as the emission specifications. Using the numeral “10” for

the ammonia emission specification will ensure consistent enforcement of the emission specification. Finally, the new SIP adopts a new §117.1210(c) and (c)(1) – (4), relating to compliance flexibility, that incorporates the rule language in the existing §117.106(e) and (e)(2) – (4).

- The adopted provisions provide for NO<sub>x</sub> emissions reductions plus operational flexibility to utilities within the Houston-Galveston-Brazoria area in the rule. Thus should be given approval.
- Please be aware that per TCEQ's request 117.1210(b) will not become a part of EPA-approved Texas SIP revision.

### Section 117.1215, Alternative System-Wide Emission Specifications

The new SIP adopts a new §117.1215 that incorporates the rule language in the existing §117.107, relating to alternative system-wide emission specifications, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. The new SIP adopts new §117.1215(a) – (e) that incorporate the rule language in the existing §117.107(a) – (e). In addition, for new §117.1215, the new SIP revises language in existing §117.107 referencing system-wide emission limit or system-wide emission limitation to specify system-wide emission specification. These changes are to provide consistency and clarity in new §117.1215 and to be consistent with the section title and the change to the definition of system-wide emission limit in §117.10 discussed previously in this preamble. New §117.1215(d) incorporates the rule language from existing §117.107(d). In addition, existing §117.107(d)(1) and (2) include required calculations written in paragraph form rather than in equation form. The new SIP is reformatting the calculations in a mathematical formula rather than the paragraph form to present the equations in a format consistent with other equations in Chapter 117 and provide a written description of all the terms used in the equation. The new equations are identical in content to the existing required calculations in paragraph form. The new equation in §117.1215(d)(1) incorporates the calculation for allowable system-wide NO<sub>x</sub> emission specification for each affected utility boiler in the existing §117.107(d)(1). The new equations in §117.1215(d)(2) incorporate the calculation for the allowable NO<sub>x</sub> emission rate for each affected stationary gas turbine in the existing §117.107(d)(2) as well as the existing equation for the in-stack NO<sub>x</sub> concentration term in the existing §117.107(d)(2). The new SIP adopts a new §117.1215(e) that incorporates the rule language in the existing §117.107(e). In addition, for new §117.1215(e), the new SIP uses the term system-wide as opposed to plant-wide that is used in the existing language to be consistent with the section.

- The adopted provisions provide for operational flexibility to the participating utilities within Houston-Galveston-Brazoria in the rule. Thus should be given approval.

### Section 117.1220, System Cap

The new SIP adopts a new §117.1220 that incorporates the rule language in the existing §117.108, relating to system cap, applicable to the Houston-Galveston-Brazoria ozone

nonattainment area. The new SIP adopts a new §117.1220(a) – (k) that incorporates the rule language in the existing §117.108(a) – (k). For new §117.1220(b), the new SIP revises the language in existing §117.108(b) that specifies “that would otherwise be subject to the NOX emission rates of §117.106 . . .” New §117.1220(b) specifies “that is subject to §117.1210(a) . . .” As previously discussed in this preamble, this change is necessary to clarify the new SIP’s intent regarding units subject to the MECT Program. In addition, the new SIP adopts new equations in §117.1220(c) that incorporate the equations in existing §117.108(c) and present the equations in a format consistent with other equations in Chapter 117. The new equations in §117.1220(c) include only the information applicable to the Houston-Galveston-Brazoria ozone nonattainment area. The new equation in §117.1220(c)(1) incorporates the equation for the rolling 30-day average emission cap in the existing §117.108(c)(1). The new equation in §117.1220(c)(2) incorporates the equation for the maximum daily emission cap in the existing §117.108(c)(2). The new SIP adopts a new §117.1220(k) that incorporates the requirements of the existing §117.108(k). The new §117.1220(k) changes source cap to system cap to be consistent with the section. Also, for new §117.1220(k), the new SIP replaces the term upset period with the language “emissions event, as defined in §101.1 of this title (relating to Definitions) . . .” This change is necessary to update the rule to current terminology used by the new SIP. The new SIP adopts a new §117.1220(l), relating to the use of emissions credits, that incorporates the rule language from existing §117.109, System Cap Flexibility. New §117.1220(m), relating to the sale and transfer of an electric generating system, incorporates the rule language from existing §117.110, Change of Ownership – System Cap.

- The adopted provisions provide for operational flexibility to the participating utilities within the Houston-Galveston-Brazoria area in the rule thus should be given approval

#### Section 117.1225, Alternative Case Specific Specifications

The new SIP adopts a new §117.1225 that incorporates the rule language in the existing §117.121, relating to alternative case specific specifications, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.1225(a) and (b) incorporate the rule language in the existing §117.121(a) and (b). In addition, the new §117.1225(a) omits the provision in the existing §117.121(a)(4) because the Engineering Services Team no longer exists within the TCEQ.

- The adopted provisions provide for alternate emissions limitations or operational flexibility to a participating utility within the Houston-Galveston-Brazoria area as circumstances may warrant.
- Please be aware that per TCEQ’s request 117.1225 will not become a part of EPA-approved Texas SIP revision.

#### Section 117.1235, Initial Demonstration of Compliance

The new SIP adopts a new §117.1235 that incorporates the rule language in the existing

§117.111, relating to initial demonstration of compliance, applicable to the Houston-Galveston-Brazoria ozone nonattainment area.

- The adopted provisions provide for enforceability of the rule to a participating utility within the Houston-Galveston-Brazoria area thus should be given approval

#### Section 117.1240, Continuous Demonstration of Compliance

The new SIP adopts a new §117.1240 that incorporates the rule language and requirements applicable to the Houston-Galveston-Brazoria ozone nonattainment area from existing §117.113, relating to initial demonstration of compliance, as well as the rule language and requirements from existing §117.114. New §117.1240(a) incorporates the rule language in the existing §117.113(a), relating to NOX monitoring. New §117.1240(b) incorporates the CO monitoring requirements from existing §117.113(b). The specific requirements and methods in the existing §117.113(b) appear in the new §117.8120, relating to CO monitoring, and subsequently have been omitted from new §117.1240(b) and replaced with a reference to the new §117.8120.

New §117.1240(c) incorporates the rule language and ammonia monitoring requirements in existing §117.114(a)(4). The new §117.1240(c) specifies that the owner or operator of units subject to the ammonia emission limits in the new §117.1210(b)(2) shall comply with the ammonia monitoring requirements of the new §117.8130. The specific ammonia monitoring procedures in existing §117.114(a)(4) are incorporated in new §117.8130.

The requirements for CEMS in the existing §117.113(c)(1) and (2) appear in the new §117.8110(a), relating to emission monitoring system requirements for utility electric generation sources. Therefore, the new §117.1240(d) omits the specific requirements of existing §117.113(c)(1) and (2). New §117.1240(d)(1) refers to the new §117.8110(a) for CEMS requirements applicable to units subject to the RACT emission specifications of new §117.1205. New §117.1240(d)(2) incorporates the CEMS requirements for units subject to the emission specifications for attainment demonstration in new §117.1210. New §117.1240(d)(2)(A) references the new §117.8110(a) and new §117.1240(d)(2)(B) – (D) incorporate the existing rule language and CEMS requirements in existing §117.113(c)(3) that are specific to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.1240(e) incorporates the rule language from existing §117.113(d), concerning acid rain peaking units. New §117.1240(f) incorporates the rule language from existing §117.113(e), concerning auxiliary boilers. In addition, for new §117.1240(f), the new SIP revises the term auxiliary boiler to auxiliary steam boiler to be consistent with the definition in §117.10. New §117.1240(g) that incorporates the requirements for PEMS from existing §117.113(f). New §117.1240(g)(1) incorporates the rule language from existing §117.113(f)(1). The requirements in the existing §117.113(f)(2) – (4) appear in the new §117.8110(b), relating to emission monitoring system requirements for utility electric generation sources, and subsequently have been omitted from the new §117.1240(g) and replaced with a reference to §117.8110(b) in new §117.1240(g)(2). New §117.1240(h) – (m) incorporate the rule language applicable to the Houston-Galveston-Brazoria ozone nonattainment area from existing §117.113(g) – (l), respectively. New §117.1240(n) incorporates the rule language from existing §117.114(b), and new §117.1240(o) incorporates the rule language from existing §117.114(c). In addition, for new §117.1240(o), the new SIP adds language to specify “The owner or operator of units subject to §117.1210(a) of this title shall comply with the following.”

This change is necessary because the provisions of §117.114(c) only apply to sources subject to existing §117.106(c) and new §117.1210(a). The provisions in existing §117.114(a)(1) – (3), concerning monitoring requirements for NOX, CO, and totalizing fuel flow meters, are redundant with existing requirements in §117.113 and new §117.1240. Therefore, existing §117.114(a)(1) – (3) are not incorporated in the new §117.1240. Rule language from existing §117.114(a)(4)(E), concerning recordkeeping for ammonia monitoring, is to be incorporated in new §117.1245, Notification, Recordkeeping, and Reporting Requirements, to consolidate the recordkeeping requirements in the appropriate section.

- The adopted provisions provide for means of compliance determination, through use of CEMS and PEMS, to utilities within Houston-Galveston-Brazoria area in the rule. Thus should be given approval.

#### Section 117.1245, Notification, Recordkeeping, and Reporting Requirements

The new SIP adopts a new §117.1245 that incorporates the rule language in the existing §117.119, relating to notification, recordkeeping, and reporting requirements, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.1245(a) – (e) incorporate the requirements in the existing §117.119(a) – (e). Finally, new §117.1245(e)(8) incorporates the recordkeeping requirement of the existing §117.114(a)(5)(E) associated with ammonia monitoring requirements.

- The adopted provisions provide for means of notification, recordkeeping, and reporting to utilities within Houston-Galveston-Brazoria area thus should be given approval

#### Section 117.1252, Final Control Plan Procedures for Reasonably Available Control Technology

The new SIP adopts a new §117.1252 that incorporates the requirements in the existing §117.115, relating to final control plan procedures for RACT, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.1252(a), (b), and (c) incorporate the rule language from existing §117.115(a), (b) and (d), respectively. In addition, the new SIP omits the existing §117.115(c), relating to electronic submission and formatting requirements for the control plan, from the new §117.1252. Existing §117.115 and new §117.1252 specify the content requirements for the control plan. Therefore, a mandatory format for the control plan information is not necessary.

- The adopted provisions provide for the process of enforceability of the RACT requirements to utilities within Houston-Galveston-Brazoria area in the rule thus should be given approval

#### Section 117.1254, Final Control Plan Procedures for Attainment Demonstration Emission Specifications

The new SIP adopts a new §117.1254 that incorporates the rule language in the existing §117.116, relating to final control plan procedures for attainment demonstration emission



specifications, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.1254(a) incorporates the rule language from existing §117.116(a). New §117.1254(a)(1)(A) incorporates the existing §117.116(a)(1)(D), and replaces the existing §117.116(a)(1)(A). New §117.1254(a)(1)(B) and (C) incorporate the existing §117.116(a)(1)(B) and (D). New §117.1254(a)(2) - (5) incorporate rule language from the existing §117.116(a)(2) - (5), respectively. Finally, the new SIP adopts new §117.1254(b) and (c) that incorporate the rule language from existing §117.116(b) and (c), respectively.

- The adopted provisions provide for the process of applying additional NO<sub>x</sub> emissions reduction to utilities within Houston-Galveston-Brazoria area in the rule. Thus should be given approval.

#### Section 117.1256, Revision of Final Control Plan

The new SIP adopts a new §117.1256 that incorporates the requirements in the existing §117.117, relating to revision of final control plan, applicable to the Houston-Galveston-Brazoria ozone nonattainment area. The new SIP adopts a new Chapter 117, Subchapter C, Division 4, entitled Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Utility Electric Generation Sources, that includes new rules applicable to utility electric generation sources in the Dallas-Fort Worth eight-hour ozone nonattainment area. These new rules are one part of the new SIP's Dallas-Fort Worth eight-hour ozone attainment demonstration and are necessary for the area to demonstrate attainment.

- The adopted provisions provide for operational flexibility to a participating utility within Houston-Galveston-Brazoria area by modification its final plan. Thus should be given approval.

#### Section 117.1300, Applicability

New §117.1300, concerning applicability, identifies the facilities and unit types in the Dallas-Fort Worth eight-hour ozone nonattainment area that are subject to this rule. Subsection (a) specifies that the division applies to utility boilers, auxiliary steam boilers, stationary gas turbines, and duct burners used in turbine exhaust ducts used in an electric power generating system that is owned or operated by a municipality or a PUC-regulated utility, or any of their successors, regardless of whether the successor is a municipality or is regulated by the PUC, or is owned or operated by an electric cooperative, municipality, river authority, or public utility operating in the Dallas-Fort Worth eight-hour ozone nonattainment area. Based on comments received and as discussed elsewhere in this preamble, independent power producers were removed from adopted §117.1300(a)(2) to avoid a potential expansion in the applicability.

Subsection (b) specifies that the provisions of the rule are applicable for the life of each affected unit within an electric power generating system or until the rule, or sections of the rule that are applicable to an affected unit, are rescinded.

- The adopted provisions are necessary for rule language consistency, and finding out what sources within the DFW area are subject to regulations. Thus should be given approval.

## Section 117.1303, Exemptions

New §117.1303 specifies the unit types and conditions that qualify for exemption from the specifications of the rule. New §117.1303(a), concerning exemptions from emission specifications for attainment demonstration, specifies the units exempt from the provisions of §117.1310 and §117.1340, except as may be specified in §117.1340(i) or (j). Units exempted include any new auxiliary steam boiler or stationary gas turbines placed into service after November 15, 1992, any auxiliary steam boiler with an annual heat input less than or equal to  $2.2(10^{11})$  British thermal units per year, or stationary gas turbines and engines used solely to power other engines or gas turbines during startups or that are demonstrated to operate less than 850 hours per year, based on a rolling 12-month average. New §117.1303(b) specifies the exemptions for emergency fuel oil firing conditions. New §117.1303(b)(1) specifies that the emissions specifications of §117.1310 of this title do not apply during an emergency operating condition declared by the Electric Reliability Council of Texas, or any other emergency operating condition that necessitates oil firing. All findings that emergency operating conditions exist are subject to the approval of the executive director. New §117.1303(b)(2) requires the owner or operator of an affected unit to provide the executive director, and any local air pollution control agency having jurisdiction, verbal notification as soon as possible but no later than 48 hours after declaration of the emergency. Verbal notification must identify the anticipated date and time oil firing will begin, duration of the emergency period, affected oil-fired equipment, and quantity of oil to be fired in each unit, and must be followed by written notification containing this information no later than five days after declaration of the emergency.

New §117.1303(b)(3) specifies that the owner or operator shall provide final written notification, as soon as possible but no later than two weeks after the termination of emergency fuel oil firing, to the executive director and any local air pollution control agency having jurisdiction. Final written notification must identify the actual dates and times that oil firing began and ended, duration of the emergency period, affected oil-fired equipment, and quantity of oil fired in each unit.

- Example calculation:  
 $(2.2 \times 10^{11} \text{ Btu/yr})(1/2000 \text{ lb/ton})(190 \text{ lb NO}_x / 1 \times 10^6 \text{ SCF})(1/1000 \text{ SCF/Btu}) = 20.9 \text{ tpy NO}_x < 50 \text{ tpy}$
- The adopted provisions provide clarity as to what sources within the DFW area are not subject to regulations. Thus should be given approval.

## Section 117.1310, Emission Specifications for Eight-Hour Attainment Demonstration

The new SIP adopts a new section §117.1310 that specifies the emission specifications for eight-hour attainment demonstration. The new §117.1310(a) establishes NOX emissions specifications for units in the Dallas-Fort Worth eight-hour ozone nonattainment area that are subject to this rulemaking. In addition, emission specifications for RACT from existing §117.105 are adopted to satisfy RACT requirements for auxiliary steam boilers and stationary gas turbines in the Dallas-Fort Worth eight-hour ozone nonattainment area.

New §117.1310(a)(1)(A) establishes an emission specification of 0.06 lb/MMBtu heat input from utility boilers that are part of a small utility system, as defined in §117.10. New subparagraph (B) establishes a NOX emission specification of 0.033 lb/MMBtu heat input for utility boilers that are part of a large utility system, as defined in §117.10. The averaging times for both of these emission specifications are on a rolling 24-hour average basis during the months of March through October of each calendar year, and on a rolling 30-day average basis during the months of November, December, January, and February of each calendar year. In addition, in subparagraph (C) the new SIP is adopting a new output or efficiency-based emission specification of 0.50 pounds per megawatt-hour output on an annual average basis. Based on comments received and discussed in detail elsewhere in this preamble, the new SIP has created an additional subparagraph §117.1310(a)(1)(D) to provide the option of a system-wide heat input weighted average for utility boilers that are part of a large utility system for compliance with the 0.033 lb/MMBtu emission specification. New clause (i) specifies that the system-wide heat input weighted average is based on a rolling 168-hour (seven day) average calculated for each hour during which fuel was combusted in any unit in the system. New §117.1310(a)(1)(D)(ii) provides an equation for determining the system-wide heat input weighted average. The equation calculates the heat input weighted average based on the hourly average NOX lb/MMBtu for each utility boiler multiplied by that boiler's hourly average heat input in MMBtu/hr, then summing these products for all boilers in the system to calculate total NOX emissions in pounds per hour. The total NOX emissions in pounds per hour is divided by the total system-wide heat input in MMBtu/hr to determine the system-wide heat input weighted average NOX in lb/MMBtu on an hourly basis. New §117.1310(a)(2) specifies emission specifications for auxiliary steam boilers. Subparagraph (A) establishes an emission specification of 0.26 lb/MMBtu heat input on a rolling 24-hour average and 0.20 lb/MMBtu heat input on a 30-day rolling average while firing natural gas or a combination of natural gas and waste oil. Subparagraph (B) establishes an emission specification of 0.30 lb/MMBtu heat input on a rolling 24-hour averaging period while firing fuel oil only. The heat input weighted average of the applicable emission specifications specified in subparagraphs (A) and (B) on a rolling 24-hour averaging period while firing a mixture of natural gas and fuel oil is specified in subparagraph (C). New subparagraph (C) also specifies the equation for calculating the emission specification while firing both natural gas and fuel oil. Also, for each auxiliary steam boiler that is an affected facility as defined by New Source Performance Standards (NSPS) 40 CFR Part 60, Subparts D, Db, or Dc, the applicable NSPS NOX emission limit applies, unless the boiler is also subject to a more stringent permit emission limit, in which case the more stringent emission limit applies. Each auxiliary steam boiler subject to an emission specification under this subparagraph is not subject to the emission specifications of the subparagraphs of this paragraph. These emission specifications are identical to the current emission specifications for auxiliary steam boilers regulated under existing §117.105, concerning emission specifications for RACT, and the equation in subparagraph (C) is identical to the equation provided in existing §117.105 for calculating the emission specification while firing both natural gas and fuel oil. New §117.1310(a)(3) specifies emission specifications for stationary gas turbines. New subparagraph (A) establishes two emission specifications for stationary gas turbines with a MW rating greater than or equal to 30 MW and an annual electric output in megawatt-hr (MW-hr) of greater than or equal to the product of 2,500 hours and the MW rating of the unit. A NOX emission specification of 42 ppmv at 15% O<sub>2</sub>, dry basis, on a block one-hour average, is for stationary gas turbines while firing natural gas, and an emission specification of 65 ppmv at 15%

O<sub>2</sub>, dry basis, is for stationary gas turbines while firing fuel oil. Subparagraph (B) establishes emission specifications for stationary gas turbines used for peaking service with an annual electric output in MW-hr of less than the product of 2,500 hours and the MW rating of the unit. The NO<sub>x</sub> emission specifications under subparagraph (B) are 0.20 lb/MMBtu heat input, on a block one-hour average, while firing natural gas, and 0.30 lb/MMBtu heat input while firing fuel oil. These emission specifications are identical to the current RACT emission specifications for stationary gas turbines regulated under existing §117.105. New §117.1310(b) establishes emission specifications of related emissions. For utility boilers or auxiliary steam boilers, a CO limit of 400 ppmv at 3.0% O<sub>2</sub>, dry (or alternatively, 0.30 lb/MMBtu heat input for gas-fired units and 0.31 lb/MMBtu heat input for oil-fired units), based on a one-hour average for units not equipped with a CEMS or PEMS for CO or a rolling 24-hour averaging period for units equipped with CEMS or PEMS for CO. For any stationary gas turbine with a MW rating greater than or equal to 10 MW, §117.1310(b) establishes a CO emission specification of 132 ppmv at 15% O<sub>2</sub>, dry basis. Section 117.1310(b)(2) specifies ammonia emission specifications for units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control, of 10 ppmv, at 3.0% O<sub>2</sub>, dry, for boilers and 15% O<sub>2</sub>, dry, for stationary gas turbines (including duct burners used in turbine exhaust ducts), based on a block one-hour averaging period for units not equipped with a CEMS or PEMS for ammonia. Units not subject to the ammonia emission specification in §117.1310(b)(2)(A) are limited to a 20 ppmv ammonia emission specification under subparagraph (B), based on a block one-hour averaging period. This 20 ppmv ammonia emission specification is consistent with the current ammonia emission specification from existing §117.105 for RACT. New §117.1310(c), concerning compliance flexibility, specifies that an owner or operator may use §117.9800 to comply with the NO<sub>x</sub> emission specifications of this section. The subsection also specifies that §117.1325 is not an applicable method of compliance with the NO<sub>x</sub> emission specifications for this section. An owner or operator may petition the executive director for an alternative to the CO or ammonia specifications of §117.1310 in accordance with §117.1325.

- The adopted provisions provide for the additional NO<sub>x</sub> emissions reductions plus operational flexibility to utilities within the DFW area in the rule. Thus should be given approval.
- Please be aware that per TCEQ's request 117.1310(b) will not become a part of EPA-approved Texas SIP revision.

#### Section 117.1325, Alternative Case Specific Specifications

New §117.1325 specifies that where a person can demonstrate that an affected unit cannot attain the applicable CO or ammonia emission specifications of §117.1310(b), the executive director may approve emission specifications different from the CO or ammonia specifications in §117.1310(b) for that unit. Section 117.1325(a) specifies that the executive director shall consider on a case-by-case basis the technological and economic circumstances of the individual unit, shall determine that such specifications are the result of the lowest emission limitation the unit is capable of meeting after the application of controls to meet the NO<sub>x</sub> emission specifications of §117.1310, as applicable, and in determining whether to approve alternative emission specifications, may take into consideration the ability of the plant where the unit is

located to meet emission specifications through system-wide averaging at maximum capacity. New §117.1325(b) specifies that any owner or operator affected by the executive director's decision to deny an alternative case specific emission specification may file a motion to overturn the executive director's decision. New subsection (b) also specifies that the requirements of §50.139 apply and that executive director approval does not necessarily constitute satisfaction of all federal requirements nor eliminate the need for EPA approval in some cases.

- The adopted provisions provide for alternate emissions limitations or operational flexibility to a source within the DFW area as circumstances may warrant.
- Please be aware that per TCEQ's request 117.1325 will not become a part of EPA-approved Texas SIP revision.

#### Section 117.1335, Initial Demonstration of Compliance

New §117.1335 specifies the procedures for the initial demonstration of compliance for owners or operators of units subject to the rule. Section 117.1335(a) specifies that the owner or operator shall test for NOX, CO, and O2 emissions. Also, for units that inject urea or ammonia into the exhaust stream for NOX control, the owner or operator must test for ammonia emissions. Testing must be performed in accordance with the schedules specified in new §117.9130. Section 117.1335(b) specifies that the tests required by subsection (a) must be used for determination of initial compliance with the emission specifications. Test results must be reported in the units of the applicable emission specifications and averaging periods. If compliance testing is based on 40 CFR Part 60, Appendix A reference methods, the report must contain the information specified in new §117.8010. New §117.1335(c) specifies that CEMS or PEMS required by new §117.1340 must be installed and operational before testing under subsection (a). Verification of operational status must, at a minimum, include completion of the initial monitor certification and the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. New §117.1335(d) specifies initial compliance with the emission specifications for units operating with CEMS or PEMS in accordance with §117.1340 must be demonstrated after monitor certification testing using the NOX CEMS or PEMS. Paragraphs (1) - (5) specify the proper monitoring procedures to be followed for the different averaging times and units specified in the emission specifications of §117.1310.

- The adopted provisions provide for enforceability of the rule thus should be given approval.

#### Section 117.1340, Continuous Demonstration of Compliance

New §117.1340 details the operating, monitoring, and testing required by owners and operators of units subject to the emissions specifications of §117.1310 in order to demonstrate continuous compliance. New §117.1340(a) requires the owner or operator of each unit subject to the emission specifications of this division to install, calibrate, maintain, and operate a CEMS, PEMS, or other system specified in §117.1340, to measure NOX on an individual basis. Each NOX monitor (CEMS or PEMS) is subject to the RATA relative accuracy requirements of 40 CFR Part

75, Appendix B, Figure 2, except the concentration options (ppmv and lb/MMBtu) do not apply. Under subsection (a), each NOX monitor must meet either the relative accuracy percent requirement of 40 CFR Part 75, Appendix B, Figure 2, or an alternative relative accuracy requirement of  $\pm 2.0$  ppmv from the reference method mean value. New §117.1340(b), concerning CO monitoring, specifies the owner or operator shall monitor CO exhaust emissions from each unit subject to the emission specifications of §117.1310, using one or more of the methods specified in §117.8120. New §117.1340(c) requires the owner or operator of units that are subject to the ammonia emission specification of new §117.1310(b)(2)(A) to comply with the ammonia monitoring requirements of new §117.8130. New §117.1340(d), concerning CEMS requirements, specifies that the owner or operator of any CEMS used to meet a pollutant monitoring requirement of §117.1340 shall comply with the requirements of §117.8110(a). New §117.1340(e) provides alternatives for NOX monitoring for acid rain peaking units, as defined in 40 CFR §72.2, which are consistent with the alternatives of existing §117.113(d). New §117.1340(f) provides alternative NOX monitoring provisions for auxiliary steam boilers. The owner or operator of each auxiliary steam boiler must either install, calibrate, maintain, and operate a CEMS in accordance with new §117.1340, or comply with the appropriate (considering boiler maximum rated capacity and annual heat input) industrial boiler monitoring requirements of new §117.440. New §117.1340(g) details the requirements for any PEMS used to meet a pollutant monitoring requirement of this section. The required PEMS and fuel flow meters must be used to demonstrate continuous compliance with the emission specifications. The PEMS must predict the pollutant emissions in the units of the applicable emission specification, and must meet the requirements of new §117.8110(b). New §117.1340(h), regarding stationary gas turbine monitoring, specifies the owner or operator of each stationary gas turbine subject to the emission specifications of §117.1310 of this title, instead of monitoring emissions in accordance with the monitoring requirements of 40 CFR Part 75, may comply with the following monitoring requirements. For stationary gas turbines rated less than 30 MW or peaking gas turbines that use steam or water injection to comply with the emission specifications of new §117.1310(a)(3), the owner or operator may either install, calibrate, maintain and operate a CEMS or PEMS in compliance with §117.1340, or install, calibrate, maintain, and operate a continuous monitoring system, accurate to within 5%, to monitor and record the average hourly fuel and steam or water consumption. The steam-to-fuel or water-to-fuel ratio monitoring data must be used for demonstrating continuous compliance with the applicable emission specification of §117.1310. For stationary gas turbines subject to the emission specifications of §117.1310 of this title, the owner or operator may install, calibrate, maintain and operate a CEMS or PEMS in compliance with §117.1340. New §117.1340(i), concerning totalizing fuel flow meters, specifies the owner or operator of units listed in subsection (i) shall install, calibrate, maintain, and operate totalizing fuel flow meters to individually and continuously measure the gas and liquid fuel usage. A computer that collects, sums, and stores electronic data from continuous fuel flow meters is an acceptable totalizer. In lieu of installing a totalizing fuel flow meter on a unit, an owner or operator may opt to assume fuel consumption at maximum design fuel flow rates during hours of the unit's operation. The units that the totalizing fuel flow meter requirements of subsection (i) apply to include any unit subject to the emission specifications of §117.1310, any stationary gas turbine with a MW rating greater than or equal to 1.0 MW operated more than 850 hours per year and any unit claimed exempt from the emission specifications of using the low annual capacity factor exemption of §117.1303(a)(2).

New §117.1340(j) specifies the owner or operator of any stationary gas turbine using the exemption of §117.1303(a)(3) shall record the operating time with an elapsed run time meter. New §117.1340(k), concerning monitoring for output-based NOX emission specification, is a new eight-hour monitoring requirement detailing the monitoring required for the owner or operator of any unit that complies with the optional output-based NOX emission specification in new §117.1310(a)(1)(C). The subsection requires the owner or operator to install, calibrate, maintain, and operate a system to continuously monitor, at least once every 15 minutes, and record the gross energy production of the unit in megawatt-hours (MW-hr). In addition, for each hour of operation, the owner or operator shall determine the total mass emission of NOX, in pounds, from the unit using the NOX monitoring requirements of §117.1340(a) and the fuel monitoring requirements of §117.1340(i). The owner or operator shall also, for each hour of operation, calculate and record the NOX emissions in pounds per megawatt-hour. New §117.1340(l), concerning loss of exemption, specifies the requirements for owners or operators of units claimed exempt under new §117.1303(a)(2) or (3) that have lost exemption status because the applicable limit is exceeded. New §117.1340(m), concerning data used for compliance, specifies that, after the initial demonstration of compliance required by new §117.1335, the methods required in new §117.1340 must be used for demonstrating continuous compliance with the emission specifications in new §117.1310.

- The adopted provisions provide for means of compliance determination, through use of CEMS and PEMS, for a source within the DFW area in the rule. Thus should be given approval.

#### Section 117.1345, Notification, Recordkeeping, and Reporting Requirements

New §117.1345 specifies the notification, recordkeeping, and reporting requirements for owners or operators of units subject to the emission specifications of §117.1310.

New §117.1345(a), concerning startup and shutdown records, specifies that for units subject to the startup and/or shutdown provisions of §101.222 of this title (relating to Demonstrations), hourly records must be made of startup and/or shutdown events and maintained for a period of at least two years. Records must be available for inspection upon request by the executive director, EPA, and any local air pollution control agency having jurisdiction. These records include, but are not limited to: type of fuel burned; quantity of each type of fuel burned; gross and net energy production in MW-hr; and the date, time, and duration of the event.

New §117.1345(b), concerning notification, specifies the owner or operator of a unit subject to the emission specifications in §117.1310 shall submit written notification to the appropriate regional office and any local air pollution control agency having jurisdiction of the date of any testing or any CEMS or PEMS performance evaluation conducted under §117.1335 or §117.1340 at least 15 days prior to such date. New §117.1345(c) specifies the owner or operator of an affected unit shall furnish the Office of Compliance and Enforcement, the appropriate regional office, and any local air pollution control agency having jurisdiction a copy of any testing conducted under §117.1335 or any CEMS or PEMS performance evaluation conducted under §117.1340. Reports must be submitted within 60 days after completion of such testing or evaluation, and not later than the appropriate compliance schedules specified in new §117.9130.

New §117.1345(d), concerning semiannual reports, specifies the owner or operator of a unit required to install a CEMS, PEMS, or steam-to-fuel or water-to-fuel ratio monitoring system under §117.1340 shall report in writing to the executive director on a semiannual basis any exceedance of the applicable emission limitations and the monitoring system performance. All reports must be postmarked or received by the 30th day following the end of each calendar semiannual period. The content requirements for the written reports are specified in new paragraphs (1) - (5). New §117.1345(e) specifies the recordkeeping requirement for the owner or operator of a unit subject to the new Subchapter C, Division 4. Records must be kept for a period of at least five years and made available for inspection upon request by the executive director, EPA, or local air pollution control agencies having jurisdiction. Operating records for each unit must be recorded and maintained at a frequency equal to the applicable emission specification averaging period, or for units claimed exempt from the emission specifications based on low annual capacity factor, monthly. New paragraph (1) requires records of emission rates in units of the applicable standards. New paragraph (2) requires records of gross energy production in MW-hr, except for auxiliary steam boilers and as specified in new paragraph (8). Records of the quantity and type of fuel burned are required by new paragraph (3), and the injection rate of reactant chemicals (if applicable) are required by new paragraph (4). New paragraph (5) requires records of emission monitoring data, in accordance with §117.1340, including: specified information regarding any monitoring system malfunctions; results of certification testing, evaluations, calibrations, checks, adjustments, and maintenance of monitoring systems; and actual emissions or operating parameter measurements, as applicable. New paragraphs (6) and (7) require records of performance testing results and hours of operation, respectively. New paragraph (8) requires additional records for any unit that the owner or operator elects to comply with the output-based emission specification in §117.1310(a)(1)(C). The additional records include hourly records of the gross energy production in MW-hr, as well as records of hourly and annual average NOX emissions in lb/MW-hr. In addition, new paragraph (8) specifies that the averaging period for the annual average NOX emissions in lb/MW-hr, for demonstrating continuous compliance is from January 1 through December 31 of each calendar year, beginning on January 1, 2010. This averaging period creates a temporary overlap with the initial demonstration of compliance period in new §117.1335, but is necessary to reset the averaging period to a calendar-year basis.

As discussed elsewhere in this preamble, the new SIP has provided an alternative system-wide heat input weighted average emission specification in §117.1310(a)(1)(D). A new §117.1345(e)(9) is adopted to specify the recordkeeping requirements for owners or operators of large utility systems that elect to use the alternative system-wide heat input weighted average emission specification. New subparagraphs (A) and (B) require hourly records of the average NOX emissions in lb/MMBtu and average heat input in MMBtu/hr for each utility boiler in the system. New subparagraph (C) requires hourly records of the system-wide heat input weighted average NOX emissions in lb/MMBtu. New subparagraph (D) requires hourly records of the rolling 168-hour average of the system-wide heat input weighted average NOX emission in lb/MMBtu.

- The adopted provisions provide for means of notification, recordkeeping, and reporting to a source within the DFW area. Thus should be given approval.



## Section 117.1350, Initial Control Plan Procedures

New §117.1350 requires the owner or operator of any unit in the Dallas-Fort Worth eight-hour ozone nonattainment area that is subject to new §117.1310 to submit an initial control plan. New subsection (a) requires the control plan to include a list of all combustion units at the account that are listed in §117.1310. For each unit, the list must include the maximum rated capacity, anticipated annual capacity factor, estimated or measured NOX emission data in the units associated with the category of equipment from §117.1310, the method of determination for the NOX emission data, the facility identification number and emission point number as submitted to the Industrial Emissions Assessment Section of the new SIP, and the emission point number as listed on the Maximum Allowable Emissions Rate Table of any applicable new SIP permit. The list must also include identification of all units with a claimed exemption from the emission specifications in §117.1310 and the rule basis for the claimed exemption, a list of units to be controlled and the type of control to be applied for each unit, including an anticipated construction schedule. For units required to install totalizing fuel flow meters in accordance with §117.1340, the plan must indicate whether the devices are currently in operation, and if so, whether they have been installed as a result of the requirements of this rule. For units required to install CEMS or PEMS, the plan must indicate whether the systems are currently in operation, and if so, whether they have been installed as a result of the requirements of this rule.

New subsection (b) specifies that the initial control plan must be submitted to the Office of Compliance and Enforcement, the appropriate regional office, and the Chief Engineer's Office by the applicable date specified for initial control plans in new §117.9130. Control plans submitted to the Chief Engineer's Office should be submitted to the attention of the Air Quality Planning Section. Finally, new subsection (c) specifies that for units located in Dallas, Denton, Collin, and Tarrant Counties subject to new §117.1110, the owner or operator may elect to submit the most recent revision of the final control plan required by new §117.1154 in lieu of the initial control plan required by §117.1350(a).

- The adopted provisions provide for the process of enforceability of the rule for sources within the DFW area thus should be given approval

## Section 117.1354, Final Control Plan Procedures for Attainment Demonstration Emission Specifications

New §117.1354 requires the owner or operator of utility boilers listed in new §117.1300 at a major source of NOX to submit a final control plan to show compliance with the requirements of new §117.1310. The final control plans must be submitted to the Office of Compliance and Enforcement, the appropriate regional office, and the Chief Engineer's Office. Control plans submitted to the Chief Engineer's Office should be submitted to the attention of the Air Quality Planning Section. As specified in new §117.1354(a), the report must include: the methods of NOX control for each utility boiler; the emissions measured by testing required in §117.1335; the submittal date, and whether sent to the Austin or the regional office (or both), of any compliance stack test or RATA report required by §117.1335 not being submitted concurrently with the final compliance report; and the specific rule citation for any utility boiler with a claimed exemption. New §117.1354(b) specifies that the report must be submitted by the applicable date specified for

final control plans in new §117.9130.

- The adopted provisions provide for the process of applying additional NO<sub>x</sub> emissions reduction to sources within the DFW area in the rule thus should be given approval

#### Section 117.1356, Revision of Final Control Plan

New §117.1356 specifies the conditions under which a revised final control plan may be submitted by the owner or operator. The revised final control plan may be submitted along with any required permit applications. The section specifies that such a plan must adhere to the requirements and the final compliance dates, and that replacement new units may be included in the control plan. The revision of the final control plan is subject to the review and approval of the executive director.

- The adopted provisions provide for operational flexibility to a participating source within DFW area by modification its final plan. Thus should be given approval.

### **SUBCHAPTER D: COMBUSTION CONTROL AT MINOR SOURCES IN OZONE NONATTAINMENT AREAS**

#### Section 117.2000, Applicability

New §117.2000 incorporates the applicability rule language from existing §117.471.

- The adopted provisions are consistent with 117.471, and necessary for finding out what minor sources within Houston-Galveston-Brazoria area are subject to NO<sub>x</sub> control requirements. Thus should be given approval.

#### Section 117.2003, Exemptions

New §117.2003 incorporates the exemption rule language from existing §117.473.

- The adopted provisions are consistent with 117.473, and necessary for finding out what minor sources within Houston-Galveston-Brazoria area are not subject to NO<sub>x</sub> control requirements. Thus should be given approval.

#### Section 117.2010, Emission Specifications

New §117.2010 incorporates the rule language from existing §117.475, concerning emission specifications. New §117.2010(a) – (i) incorporate the rule language from existing §117.475(a) – (i), respectively. In addition, for new §117.2010(i)(2), the new SIP changes the emissions specification for ammonia from the word “ten” to the numeral “10.” Consistent with EPA guidance, the new SIP normally enforces emission testing and monitoring results to the same significant figures as the emission specifications. Using the numeral “10” for the ammonia emission specification will ensure consistent enforcement of the emission specification.

- The adopted provisions are consistent with 117.475, provide for the additional NOx emissions reductions plus operational flexibility to affected minor sources within the Houston-Galveston-Brazoria area in the rule. Thus should be given approval.
- Please be advised that per TCEQ’s request 117.2010(i) will not become a part of EPA-approved Texas SIP revision.

#### Section 117.2025, Alternative Case Specific Specifications

New §117.2025 incorporates the rule language in the existing §117.481, relating to alternative case specific specifications. New §117.2025(a) and (b) incorporate the rule language in the existing §117.481(a) and (b), respectively. In addition, new §117.2025(a) omits the existing §117.481(a)(4) because the Engineering Services Team no longer exists within the TCEQ.

#### Section 117.2030, Operating Requirements

New §117.2030 incorporates the rule language in the existing §117.478, relating to operating requirements. New §117.2030(a) – (c) incorporate the rule language in the existing §117.478(a) – (c), respectively. For new §117.2030(a) and (b), the new SIP revises the language in existing §117.478(a) and (b) that specifies unit or units “subject to the emission limitations of §117.475.” New §117.2030(a) and (b) specify “subject to §117.2010 . . .” While compliance with the emission specifications in existing §117.475(c) is achieved through the MECT Program for sources that are required to participate in the program, and an individual unit may not necessarily be required to meet the applicable emission specification in §117.475(c), units subject to existing §117.475(c) are still required to comply with existing §117.478. This change for new §117.2030 will clarify the new SIP’s intent and avoid misinterpretation of the rule requirements for units subject to the MECT Program. In addition, for new §117.2030(b)(1), the new SIP omits the phrase “except for wood-fired boilers” because wood-fired boilers are not subject to either the existing rule or the new rule. The new SIP is concurrently adopting a new §117.8140(b) that incorporates the engine testing requirements in the existing §117.478(b)(5). Therefore, the engine testing requirements in existing §117.478(b)(5) have been omitted from the new §117.2030(b)(5) and replaced with a reference to the new §117.8140(b).

- The adopted provisions are consistent with 117.481, provide for operational flexibility to the participating minor source within Houston-Galveston-Brazoria area.
- Please be advised that per TCEQ’s request 117.2025 will not become a part of EPA-approved Texas SIP revision.

#### Section 117.2035, Monitoring and Testing Requirements

New §117.2035 incorporates the rule language regarding monitoring and testing from the existing §117.479, relating to monitoring, recordkeeping, and reporting requirements. New §117.2035(a) – (f) incorporate the rule language from existing §117.479(a) – (f), respectively. New §117.2035(g) incorporates the rule language from existing §117.479(i), concerning run time meters. The recordkeeping and reporting requirements in existing §117.479(g), (h), and (j) are

incorporated in a new §117.2045, as discussed elsewhere in this preamble. In addition, for new §117.2035, the new SIP revises the language in existing §117.479(a) and (e) that specifies “subject to the emission limitations of §117.475.” New §117.2035(a) and (e) specify “subject to §117.2010 . . .” As previously indicated in this preamble, this change will clarify the new SIP’s intent and avoid misinterpretation of the rule requirements for units subject to the MECT Program. For new §117.2035(b) and (c), the references to existing §117.213(e) and (f) are updated to §117.8100(a) and (b), as applicable, because the applicable requirements for CEMS and PEMS from existing §117.213 are incorporated in a new §117.8100. For new §117.2035(c), concerning NOX monitors, the new SIP adds a provision that specifies that if a PEMS is used, the PEMS must predict the pollutant emissions in units of the applicable emission specifications of the division. This change is necessary because this requirement from existing §117.213(f) is not included in the new §117.8100(b).

The new SIP is concurrently adopting a new §117.8000 that incorporates some of the testing requirements in the existing §117.479(e)(3). Therefore, the new SIP adopts a new §117.2035(e)(3) that replaces specific requirements from existing §117.479(e)(3)(A) – (F) with a reference to the new §117.8000. Existing §117.479(e)(3)(G), regarding the provision allowing the use of American Society for Testing and Materials (ASTM) D6522-00 for performance testing on natural gas-fired engines, turbines, boilers, and process heaters, is incorporated into the new §117.2035(e)(3). Also, the new SIP is concurrently adopting a new §117.8010 that incorporates the report content requirements in the existing §117.211(g). Therefore, for new §117.2035(e)(3), the reference to §117.211(g) in existing §117.479(e)(3)(G), for report content requirements, is revised to reference the new §117.8010.

As indicated previously in this preamble, the new SIP is concurrently adopting a new §117.8010 that incorporates the report content requirements in the existing §117.211(g). Therefore, new §117.2035(e)(4) changes the reference to §117.211(g) to the new §117.8010. Also, for new §117.2035(e)(6), the new SIP revises the language “Initial compliance with the emission specifications of §117.475” to specify that “Initial compliance with §117.2010 . . .” As indicated previously in this preamble, this change will clarify the new SIP’s intent and avoid misinterpretation of the rule requirements for units subject to the MECT Program.

#### Section 117.2045, Recordkeeping and Reporting Requirements

New §117.2045 incorporates the rule language regarding recordkeeping and reporting from the existing §117.479, relating to monitoring, recordkeeping, and reporting requirements. New §117.2045(a) – (c) incorporate the rule language from existing §117.479(g), (h), and (j), respectively. For new §117.2045, the new SIP is revising the language in existing §117.479(g) that specifies “subject to the emission limitations of §117.475 . . .” New §117.2045(a) specifies “subject to §117.2010 . . .” As previously indicated in this preamble, this change will clarify the new SIP’s intent and avoid misinterpretation of the rule requirements for units subject to the MECT Program.

- The adopted provisions are consistent with 117.479, provide for means of enforceability criteria or applicability determinations, through testing or monitoring for a minor source within Houston-Galveston-Brazoria in the rule. Thus should be given approval.

#### Section 117.2100, Applicability

New §117.2100 specifies that the new Division 2, Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Minor Sources, applies to stationary reciprocating internal combustion engines located in the Dallas-Fort Worth eight-hour ozone nonattainment area at a stationary source of NOX that is not a major source of NOX. After further evaluation, the new SIP has determined that process heaters and stationary gas turbines at minor sources of NOX do not represent a significant source of emissions in the Dallas-Fort Worth eight-hour ozone nonattainment area. Emission reductions from these two source categories under the proposed rule would be minimal. Therefore, the new SIP has decided to exempt process heaters and stationary gas turbines from the adopted rule. In addition, although no comments were received specifically regarding boilers at minor sources, the new SIP has decided to also exempt boilers from the adopted rule. The new SIP estimated that over 1,000 boilers would require retrofitting or replacement to meet the proposed emission specification. While considering comments received regarding the compliance schedule for minor sources, the new SIP determined that controls on boilers located at minor sources could not be implemented in time to help advance attainment of the area by the attainment date. The issue is further complicated by the fact that many of the owners or operators of boilers at minor sources are small businesses, schools, hospitals, and other institutions that would likely require more time to comply with the rule for economic reasons.

- The adopted provisions are necessary for finding out what minor sources within DFW area are subject to NOx control requirements. Thus should be given approval.

#### Section 117.2103, Exemptions

New §117.2103 specifies stationary, reciprocating internal combustion engines that will be exempt from the requirements of Chapter 117, Subchapter D, Division 2. As discussed elsewhere in this preamble, boilers, process heaters, and stationary gas turbines are not subject to the adopted rule. Exemptions related to boilers, process heaters, and stationary gas turbines have been removed to reflect this change, and the exemptions section renumbered accordingly. Section 117.2103 specifies those engines exempt from the rule, except for requirements that are specified in §§117.2130(c), 117.2135(e), and 117.2145(b) and (c).

New §117.2103(1) – (7) exempts stationary reciprocating internal combustion engines: with a hp rating of 50 hp or less; used for research and testing; used for performance verification and testing; used solely to power other engines and gas-turbines during startups; used exclusively for emergency situations, except for 100 hours of operation for testing and maintenance purposes; used in response to and during any officially declared disaster or state of emergency; or used directly and exclusively by the owner or operator for agricultural operations necessary for growing crops or raising of fowl or animals. Based on comments received and as discussed elsewhere in this preamble, the new SIP has revised the limit on hours to qualify for the exemption under §117.2103(5) to 100 hours instead of the 52 hours in the proposed rule. The exemption in new §117.2103(5), for engines used exclusively for emergency situations, is not applicable to any new, modified, reconstructed, or relocated engines placed into service on or after June 1, 2007. New §117.2103(5) also provides the definitions for modified, reconstruction, or relocated. New §117.2103(8), specifies that any stationary diesel engine placed into service before January 1, 2007, in the Dallas-Fort Worth eight-hour ozone nonattainment area is eligible for the

exemption in §117.2103(8) provided the engine meets the conditions of subparagraphs (A) and (B). New §117.2103(8)(A) and (B) specify that engines claimed exempt under §117.2103(8) must operate less than 100 hours per year, based on a rolling 12-month average and not have been modified, reconstructed, or relocated on or after January 1, 2007, in the Dallas-Fort Worth eight-hour ozone nonattainment area.

New §117.2103(9) specifies that any stationary diesel engine placed into service on or after January 1, 2007, in the Dallas-Fort Worth eight-hour ozone nonattainment area is eligible for the exemption in §117.2103(9) provided the engine meets the conditions of subparagraphs (A) and (B). New §117.2103(9)(A) and (B) specify that new, modified, reconstructed, or relocated stationary diesel engines claimed exempt under §117.2103(9) must operate less than 100 hours per year, based on a rolling 12-month average, and must meet the corresponding emissions standards in 40 CFR §89.112(a), Table 1 (October 23, 1998) and in effect at the time of installation, modification, reconstruction, or relocation.

- NO<sub>x</sub> emissions from a unit operation 100 hours or less per year is below the major source threshold for NO<sub>x</sub>, and should not be problematic for applicability purposes.
- The adopted provisions are necessary for finding out what minor sources within DFW area are not subject to NO<sub>x</sub> control requirements. Thus should be given approval.

#### Section 117.2110, Emission Specifications for Eight-Hour Attainment Demonstration

New §117.2110 establishes the emission specifications for units in the Dallas-Fort Worth eight-hour ozone nonattainment area that are subject to this rulemaking. As discussed elsewhere in this preamble, boilers, process heaters, and stationary gas turbines are not subject to the adopted rule. Provisions in the adopted §117.2110 related to boilers, process heaters, and stationary gas turbines have been modified or removed to reflect this change, and the provisions in adopted §117.2110 renumbered accordingly.

New §117.2110(a)(1) establishes NO<sub>x</sub> emission specifications for stationary, gas-fired, reciprocating internal combustion engines. New subparagraph (A) establishes the emission specifications for rich-burn gas-fired engines. Rich-burn engines fired on landfill gas are limited to 0.60 g/hp-hr and all other gas-fired rich-burn engines are limited to 0.50 g/hp-hr. New subparagraph (B) establishes the emission specifications for lean-burn gas-fired engines. Lean-burn engines placed into services before June 1, 2007, that have not been modified, reconstructed, or relocated on or after June 1, 2007, are limited to 0.70 g/hp-hr. Lean-burn gas-fired engines installed, modified, reconstructed, or relocated on or after June 1, 2007, are limited to 0.60 g/hp-hr if fired on landfill gas and 0.50 g/hp-hr for all other lean-burn engines. As discussed elsewhere in this preamble, the change to the emission specification for existing lean-burn engines is based on comments received.

NSCR technology is anticipated to be the primary control technology for rich-burn engines to comply with this rule. In some cases, the owner or operator may have to install an additional catalyst module with the NSCR control package in order to comply with the 0.50 g/hp-hr emission specification. One possible control technology available for lean-burn engines is the application of an EGR kit (in order to reduce the excess O<sub>2</sub>) combined with NSCR control. While NSCR is not normally applied to lean-burn engines, the use of the EGR kit reduces exhaust

gas O<sub>2</sub> and allows NSCR to be installed. Owners or operators of some lean-burn engines may not be able to apply the exhaust gas recirculation kit coupled with NSCR. In these instances, SCR may be required to achieve the emission specifications. No landfill gas-fired engines were identified in the inventory in the counties impacted by this rule; however, the 0.60 g/hp-hr for gas-fired engines fired on landfill gas is consistent with the emission specification for this category of engines in the Houston-Galveston-Brazoria ozone nonattainment area and is expected to be achievable through combustion modifications or by purchasing a new engine meeting the emission specification.

Stationary, dual-fuel, reciprocating internal combustion engines are limited to 5.83 g/hp-hr by new §117.2110(a)(2). For stationary, dual-fuel reciprocating internal combustion engines, combustion modifications are expected to be necessary to meet the 5.83 g/hp-hr emission specification requirements.

New §117.2110(a)(3) establishes emission specifications for stationary, diesel, reciprocating internal combustion engines based on engine hp rating and the date that the engine was installed, modified, reconstructed, or relocated. These emission specifications are similar to the emission specifications for stationary diesel engines subject to existing Subchapter D, Division 2 in the Houston-Galveston-Brazoria ozone nonattainment area; however, the new SIP is not requiring engines to meet previous specifications for which the dates have passed. While the date associated with the emission specifications in §117.2110(a)(3) was not specifically commented on, the new SIP has determined that March 1, 2009, the compliance date specified for diesel engines in §117.9210, is more appropriate to use as a basis for the tiered emission specification under §117.2110(a)(3). Aligning the date with the compliance date in §117.9210 will simplify the emission specification schedule and make compliance with the rule easier for owners or operators of engines that were ordered prior to the rule proposal but would not be installed by June 1, 2007. This revision also provides relief for emergency diesel engines installed after June 1, 2007, that might not qualify for exemption under §117.2103(8) or (9).

New §117.2110(a)(3)(A) specifies that stationary diesel engines placed into service before March 1, 2009, that have not been modified, reconstructed, or relocated after March 1, 2009, are limited to the lower of 11.0 g/hp-hr or the emission rate established by testing, monitoring, manufacturer's guarantee, or manufacturer's other data. New §117.2110(a)(3)(B) establishes the NO<sub>x</sub> emission limits for stationary diesel engines installed, modified, reconstructed, or relocated on or after March 1, 2009. The emission specifications in §117.2110(a)(3)(B) are tiered based on engine horsepower and are consistent with the final standards for stationary diesel engines in the Houston-Galveston-Brazoria nonattainment area.

The new SIP expects that, initially, the majority of stationary diesel engines at minor sources of NO<sub>x</sub> in the Dallas-Fort Worth eight-hour ozone nonattainment area qualify for exemption under §117.2103(8) or (9). When owners or operators modify, reconstruct, or relocate existing stationary diesel engines on or after June 1, 2007, if used exclusively in emergency situations, these engines would continue to be exempt from the new emission specifications, but will be required to meet the EPA Tier 1, Tier 2, or Tier 3 emission standards for non-road diesel engines in effect at the time of installation, modification, reconstruction, or relocation. These requirements ensure that as turnover of older, higher-emitting stationary diesel engines occurs, the replacements will be cleaner engines. For engines that do not qualify for exemption, the new SIP does not anticipate that engines placed into service prior to March 1, 2009, would require combustion modifications to meet the 11.0 g/hp-hr emission specification. The cost of combustion

modifications to stationary diesel engines to meet the emission standards in §117.2110(a)(3)(B) is expected to be near the cost of a new engine; therefore, the new SIP anticipates that for engines placed into service on or after March 1, 2009, the owner or operator will likely purchase new equipment rather than retrofit or modify existing equipment.

New §117.2110(a)(4), proposed as subsection (a)(6), provides an alternative emission specification of 0.060 lb/MMBtu in lieu of the emissions specifications in §117.2110(a)(1) - (3) for a unit with an annual capacity factor of 0.0383 or less. The capacity factor as of December 31, 2000, must be used to determine eligibility for this alternative emission specification. For units placed into service after December 31, 2000, a 12-month rolling average must be used to determine the annual capacity factor.

New §117.2110(a)(5) defines modification, reconstruction, and relocated consistent with §117.2010(c)(4). The new SIP has moved these definitions from subsection (a)(3)(A) so the definitions also apply to the terms used in subsection (a)(1) and to clarify the rule. The paragraphs under subsection (a) are also revised to be complete sentences for clarity.

New §117.2110(b) specifies the averaging time for determining compliance with the NOX emission specifications. New §117.2110(b)(1) specifies the averaging time for units equipped with CEMS or PEMS must be either a rolling 30-day average in the units of the applicable standard, a block one-hour average in the units of the applicable standard, or a block one-hour average in pounds per hour for boilers. New §117.2110(b)(2) specifies that averaging time for units not operated with CEMS or PEMS must be a block one-hour average in the units of the applicable standard.

New §117.2110(c) specifies that the maximum rated capacity used to determine the applicability of the emissions specifications must be the greater of the maximum rated capacity as of December 31, 2000, or the maximum rated capacity after December 31, 2000.

New §117.2110(d) specifies that a unit's classification is determined by the most specific classification applicable to the unit as of December 31, 2000. For example, a unit that is classified as a stationary gas-fired engine as of December 31, 2000, but subsequently is authorized to operate as a dual-fuel engine, will remain classified as a stationary gas-fired engine for the purposes of this rule.

New §117.2110(e) specifies that changes after December 31, 2000, to a unit subject to an emission specification in subsection (a) that result in increased NOX emissions from a unit not subject to the emission specifications is only allowed if the conditions of §117.2110(e)(1) and (2) are met. Section 117.2110(e)(1) requires the increase in NOX emissions at the unit not subject to an emission specification be determined using CEMS or PEMS monitoring or through stack testing that meets the requirements of §117.2135. In addition, §117.2110(e)(2) requires that emission credits equal to the increase in NOX emissions must be obtained and used in accordance with new §117.9800, concerning use of emissions credits for compliance. An example of this is redirecting one or more fuel or waste streams containing chemical-bound nitrogen to an incinerator or a flare.

New §117.2110(f) specifies that a source that met the definition of major source on December 31, 2000, must always be classified as a major source for purposes of this rule. In addition, a source that was a minor source on December 31, 2000, but becomes a major source after December 31, 2000, will from that time forward always be classified as a major source for purposes of Chapter 117.

New §117.2110 also adds a new §117.2110(g) that specifies that the low annual capacity factor



available under §117.2110(a)(4) for units with an annual capacity factor of 0.0383 or less is based on the unit's status on December 31, 2000. In addition, §117.2110(g) specifies that reduced operation after December 31, 2000, cannot be used to qualify for a more lenient emission specification under subsection (a)(4).

New §117.2110(h) establishes ammonia and CO emission specifications. The CO emission specification in §117.2110(h)(1) is 400 ppmv at 3.0 O<sub>2</sub>, dry basis, or alternatively, 3.0 g/hp-hr for stationary internal combustion engines. New §117.2110(h)(1)(A) and (B) specify the averaging time for the CO emission specification. The CO specification is necessary to prevent large increases in CO emissions concurrent with the installation of NOX controls and represents good engineering practice. For units that inject urea or ammonia into the exhaust stream to control NOX emissions, §117.2110(h)(2) includes a 10 ppmv ammonia emission specification (15% O<sub>2</sub> for gas-fired lean-burn engines, and 3.0% O<sub>2</sub> for all other units). New §117.2110(h)(2)(A) and (B) specify the averaging time for the ammonia emission specification. This ammonia emission specification is necessary to ensure that excessive ammonia slip emissions do not occur should an owner or operator use a control technology such as SCR.

Finally, new §117.2110(i) specifies that an owner or operator may use emission reduction credits as specified in new §117.9800 to comply with the NOX emission specifications.

- The adopted provisions are necessary for establishing the emissions specifications for minor sources within DFW area, assist in reducing NOx emissions. Thus should be given approval.
- Please be advised that per TCEQ's request 117. 2110(h) will not become a part of EPA-approved Texas SIP revision.

#### Section 117.2125, Alternative Case Specific Specifications

New §117.2125, concerning alternative case specific specifications, establishes provisions that allows owners or operators to petition the executive director for alternative case specific emission specifications for CO and ammonia. Section 117.2125(a) specifies that the executive director may approve emission specifications different from the CO or ammonia specifications for a unit where a person can demonstrate that the affected unit cannot attain the CO or ammonia specifications of §117.2110(h). Subsection (a)(1) specifies that the executive director shall consider on a case-by-case basis the technological and economic circumstances of the individual unit. Subsection (a)(2) requires that the executive director must determine that such specifications are the result of the lowest emission limitation the unit is capable of meeting after the application of controls to meet the NOX emission specifications of §117.2110. Subsection (a)(3) specifies that the executive director, in determining whether to approve alternative emission specifications, may take into consideration the ability of the plant at which the unit is located to meet emission specifications through system-wide averaging at maximum capacity. Finally, §117.2125(b) specifies that any owner or operator affected by the executive director's decision to deny an alternative case specific emission specification may file a motion to overturn the executive director's decision, and that the requirements of §50.139 (relating to Motion to Overturn Executive Director's Decision) apply to §117.2125.

- The adopted provisions are necessary for finding out what minor sources within DFW area are not subject to NOx control requirements.
- Please be advised that per TCEQ's request 117. 2125 will not become a part of EPA-approved Texas SIP revision.

### Section 117.2130, Operating Requirements

New §117.2130 establishes operating requirements for units subject to the emission specifications of this division. New §117.2130(a) specifies that the owner or operator must operate any unit subject to the emission specifications in compliance with those specifications. New §117.2130(b) specifies that all units subject to the emission specifications must be operated so as to minimize NOX emissions consistent with the emission control techniques selected, over the unit's operating or load range during normal operations. As discussed elsewhere in this preamble, boilers, process heaters, and stationary gas turbines are not subject to the adopted rule. Provisions in the adopted §117.2130 related to boilers, process heaters, and stationary gas turbines have been modified or removed to reflect this change, and the provisions renumbered as necessary.

New §117.2130(b)(1) requires that each unit controlled with post-combustion control techniques must be operated such that the reducing agent injection rate is maintained to limit NOX concentrations to less than or equal to the NOX concentrations achieved at maximum rated capacity. New §117.2130(b)(2) requires each stationary internal combustion engine controlled with NSCR to be equipped with an AFR controller that operates on exhaust O2 or CO control and maintains AFR in the range required to meet the engine's applicable emission limits. New §117.2130(b)(3) requires that each stationary internal combustion engine must be checked for proper operation according to §117.8140(b). New §117.2130(c) specifies that no person shall start or operate any stationary diesel or dual-fuel engine for testing or maintenance between the hours of 6:00 a.m. and noon, except as provided in subsection (c)(1) – (3). New subsection (c)(1) allows for specific manufacturer's recommended testing requiring a run of over 18 consecutive hours. Subsection (c)(2) allows for operation to verify reliability of emergency equipment (e.g., emergency generators or pumps) immediately after unforeseen repairs. Routine maintenance such as an oil change is not considered to be an unforeseen repair. New subsection (c)(3) allows for operation of firewater pumps for emergency response training conducted during April through October. This provision is identical to a requirement implemented for the Houston-Galveston-Brazoria ozone nonattainment area. The requirement will delay emissions of NOX from testing of these engines until after noon in order to help limit ozone formation.

- The adopted provisions provide for rule consistency concerning operating requirements among 117.2130, 117.2135, 117.2145 and 117.2110. Thus should be given approval.

### Section 117.2135, Monitoring, Notification, and Testing Requirements

New §117.2135 specifies the monitoring, notification, and testing requirements that apply to minor sources in the Dallas-Fort Worth eight-hour ozone nonattainment area subject to this rule. As discussed elsewhere in this preamble, boilers, process heaters, and stationary gas turbines are not subject to the adopted rule. Provisions in the adopted §117.2135 related to boilers, process

heaters and stationary gas turbines have been modified or removed to reflect this change and the provisions renumbered as necessary.

Proposed §117.2135(a) is not adopted because the totalizing fuel flow meter requirements were only applicable to boilers and process heaters. New §117.2135(a) specifies that if an owner or operator installs an O<sub>2</sub> monitor, then the criteria in §117.8100(a) is the appropriate guidance for the location and calibration of the monitor. New §117.2135(b) specifies that if an owner or operator installs a NO<sub>x</sub> monitor, then it must meet the CEMS or PEMS requirements of §117.8100(a) or (b). New §117.2135(c) specifies that monitors must be installed on the schedule specified in §117.9210.

New §117.2135(d) lists the testing requirements for units subject to the emission specifications of §117.2110. Section 117.2135(d)(1) requires that each unit must be tested for NO<sub>x</sub>, CO, and O<sub>2</sub> emissions and subsection (d)(2) requires that each unit that injects urea or ammonia for NO<sub>x</sub> control be tested for ammonia emissions. New §117.2135(d)(3) specifies all testing must be conducted according to §117.8000 for units not equipped with CEMS or PEMS. In lieu of the test methods specified in §117.8000 of this title, the owner or operator may use ASTM D6522-00 to perform the NO<sub>x</sub>, CO, and O<sub>2</sub> testing required by this subsection on natural gas-fired reciprocating engines. Also, if the owner or operator elects to use ASTM D6522-00 for the testing requirements, the report must contain the information specified in §117.8010. New §117.2135(d)(4) specifies that the results must be reported in the units of the applicable standard and averaging periods, and that if compliance testing is based on 40 CFR 60 Appendix A test methods then the report must contain the information specified in §117.8010.

New §117.2135(d)(5) specifies that for units equipped with CEMS or PEMS, the CEMS or PEMS must be installed and operational before testing under this subsection. Verification of operational status must, at a minimum, include completion of the initial monitor certification and the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

New §117.2135(d)(6) specifies that on units operating with CEMS or PEMS, initial compliance with the emission specifications of §117.2110 of this title must be demonstrated using the CEMS or PEMS after monitor certification. New §117.2135(d)(7) specifies retesting requirements for units not operating with CEMS or PEMS. New §117.2135(d)(7)(A) requires retesting within 60 days after any modification that could reasonably be expected to increase the NO<sub>x</sub> emission rate. New §117.2135(d)(7)(B) allows retesting at the discretion of the owner or operator after any modification that could reasonably be expected to decrease the NO<sub>x</sub> emission rate, including, but not limited to, installation of post-combustion controls, low-NO<sub>x</sub> burners, low excess air operation, staged combustion (for example, overfire air), FGR, and fuel-lean and conventional (fuel-rich) reburn. New §117.2135(d)(8) specifies that testing be performed in accordance with the schedule specified in §117.9210. New §117.2135(d)(9) requires that all test reports be submitted to the executive director for review and approval within 60 days after completion of the testing. Notification requirements are specified in new §117.2135(d)(10). Written notification is required at least 15 days in advance of any testing or RATA required under §117.2135. Finally, new §117.2135(e) specifies the owner or operator of any stationary diesel engine claimed exempt using the exemption of §117.2103(5), (8), or (9) of this title shall record the operating time with a non-resettable elapsed run time meter.

- The adopted provisions provide for monitoring, notification, and testing requirements of

minor sources in the DFW 8-hour ozone nonattainment area, establish CEMS or PEMS requirements for sources utilizing these systems, promote installation of post-combustion controls, low-NOX burners, low excess air operation, staged combustion (for example, over-fire air), FGR, and fuel-lean and conventional (fuel-rich) reburn as options . Thus should be given approval.

#### Section 117.2145, Recordkeeping and Reporting Requirements

New §117.2145 specifies recordkeeping and reporting requirements for sources subject to the rule. As discussed elsewhere in this preamble, boilers, process heaters, and stationary gas turbines are not subject to the adopted rule. Provisions in the adopted §117.2145 related to boilers, process heaters and stationary gas turbines have been modified or removed to reflect this change, and the provisions renumbered accordingly.

New §117.2145(a) requires that the owner or operator of a unit subject to the emission specifications of §117.2110 must maintain written or electronic records of the data specified in this subsection. Such records must be kept for a period of at least five years and must be made available upon request by authorized representatives of the executive director, the EPA, or local air pollution control agencies having jurisdiction. New adopted §117.2145(a)(1) requires that records of hourly emissions be maintained for each unit using a CEMS or PEMS. New §117.2145(a)(1)(A) requires hourly emissions for units complying with an emission specification enforced on a block one-hour average. New §117.2145(a)(1)(B) requires daily emissions for units complying with an emission specification enforced on a rolling 30-day average. New §117.2145(a)(1)(B)(i) and (ii) specify that emissions must be recorded in units of lb/MMBtu heat input and pounds or tons per day. New §117.2145(a)(2) specifies records for each stationary internal combustion engine subject to the emission specifications of §117.2110. Records required under new §117.2145(a)(2) include emissions measurements required by §117.2130(b)(3) as well as any catalytic converter, AFR controller, or other emissions-related control system maintenance, including the date and nature of corrective actions taken. New subsection (a)(3) requires records of the CO measurements specified in subsection §117.2130(b)(3). New subsection (a)(4) requires records of the results of initial certification testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS, PEMS, or steam-to-fuel or water-to-fuel ratio monitoring systems. New subsection (a)(5) requires the owner or operator to maintain records of the results of performance testing.

New §117.2145(b) specifies that written records of the number of hours of operation for each day's operation must be made for each engine claimed exempt under §117.2103(5), (8), or (9) of this title or §117.2130(b)(3). In addition, for each engine claimed exempt under §117.2103(5), written records must be maintained that reflect the purpose of engine operation and, if operation was for an emergency situation, identification of the type of emergency situation and the start and end times and dates of the emergency situation. The records must be maintained for at least five years and must be made available upon request to representatives of the executive director, the EPA, or any local air pollution control agency having jurisdiction. New §117.2145(c) specifies the requirements for records of operation for testing and maintenance. The owner or operator of each stationary diesel or dual-fuel engine shall maintain the following records for at least five years and make them available upon request by authorized representatives of the executive director, the EPA, or local air pollution control agencies having jurisdiction. New

§117.2145(c)(1) specifies the owner or operator of each stationary diesel or dual-fuel engine shall maintain records of dates of operation. New subsection (c)(2) requires records of start and end times of operation. New subsection (c)(3) requires records with engine identification information and new subsection (c)(4) requires records of the total hours of operation for each month and for the most recent 12 consecutive months.

- These records (referred to in 117.2145(a)) are air emissions-related, thus are subject to Freedom Of Information Act.
- The adopted provisions provide for rule consistency concerning recordkeeping and recording requirements, assist with the enforceability of the rule 117.2110. Thus should be given approval.

## **SUBCHAPTER E: MULTI-REGION COMBUSTION CONTROL**

### Section 117.3000, Applicability

New §117.3000 incorporates the applicability language from existing §117.131.

- The adopted provisions are consistent with 117.131, are necessary for finding out what utilities in east and central Texas are subject to NO<sub>x</sub> control requirements . Thus should be given approval.

### Section 117.3003, Exemptions

New §117.3003 incorporates the exemption language from existing §117.133.

- The adopted provisions are consistent with 117.133, are necessary for finding out what sources in east and central Texas are not subject to NO<sub>x</sub> control requirements. Thus should be given approval.

### Section 117.3005, Gas-Fired Steam Generation

New §117.3005 incorporates the requirements and specifications from existing §117.134.

- The adopted provisions are consistent with 117.134, provides for NO<sub>x</sub> control requirements for utilities in east and central Texas. Thus should be given approval.

### Section 117.3010, Emission Specifications

New §117.3010 incorporates the requirements and emission specifications from existing §117.135. The new SIP also corrects a typographical error in existing §117.135(1) that incorrectly specified “nitrogen oxide (NOX) . . .” The correct terminology for the regulated pollutant is “nitrogen oxides (NOX).” Because all other sections in the division correctly specify

“nitrogen oxides,” the new SIP does not anticipate that any regulated entities have misinterpreted the new SIP’s intent with regard to the emission specifications in §117.135. Therefore, the new SIP does not consider the correction in new §117.3010(1) to have any impact to the regulated community. In addition, the new SIP revises the ammonia emission specification in new §117.3010(2), incorporated from existing §117.135(2), to be the numeral “10” instead of the word “ten.” Consistent with EPA guidance, the new SIP normally enforces emission test and monitoring results to the same significant figures as the emission specifications. Using the numeral “10” for the ammonia emission specification will ensure consistent enforcement of the emission specification. Finally, the new SIP moves the existing requirement for ammonia monitoring procedures in existing §117.135(2)(B), that references the ammonia monitoring procedures in existing §117.114(a)(4) to the appropriate monitoring section in new §117.3040, concerning continuous demonstration of compliance.

- The adopted provisions are consistent with 117.135, provides for NOx control requirements for utilities in east and central Texas thus should be given approval
- Please be advised that per TCEQ’s request 117.3010(e) will not become a part of EPA-approved Texas SIP revision.

#### Section 117.3020, System Cap

New §117.3020 incorporates the language from existing §117.138, concerning System Cap requirements, and §117.139, concerning System Cap Flexibility. Existing §117.138(a) – (k) are incorporated in new §117.3020(a) – (k). Existing §117.139 is incorporated in new §117.3020(l). In addition, the new SIP adopts a revised equation in §117.3020(c) that incorporates the equation in existing §117.138(c) and presents the equation in a format consistent with other equations in Chapter 117. Finally, based on comments received, the new SIP has corrected the cross-reference error in §117.3020(l) to reference the appropriate citation, §117.3000(a)(4).

- The adopted provisions are consistent with existing 117.138, provides for operational flexibility for utilities within the system operating in east and central Texas . Thus should be given approval.

#### Section 117.3025, Alternative Case Specific Specifications

New §117.3025 incorporates the provisions in the existing §117.151, relating to alternative case specific specifications. New §117.3025(a) and (b) incorporates the rule language in the existing §117.151(a) and (b); however, the new §117.3025(a) omits the existing §117.151(a)(4) because the Engineering Services Team no longer exists within the TCEQ.

- The adopted provisions are consistent with 117.151, provides for alternate emissions limitations or operational flexibility to a source in east and central Texas as circumstances may warrant.
- Please be advised that per TCEQ’s request 117.3025 will not become a part of EPA-

approved Texas SIP revision.

#### Section 117.3035, Initial Demonstration of Compliance

New §117.3035 incorporates the requirements for initial demonstration of compliance from existing §117.141. New §117.3035(a) – (d) incorporate the rule language from existing §117.141(a) – (d). Additionally, in new §117.3035(a), the new SIP revises the language from existing §117.141(a) to clarify that the units subject to the emission specifications should be tested and not the owner or operator of the units.

- The adopted provisions are consistent with 117.141, provide for enforceability of the rule to a source in east and central Texas thus should be given approval

#### Section 117.3040, Continuous Demonstration of Compliance

New §117.3040 incorporates the requirements for continuous demonstration of compliance from existing §117.143. New §117.3040(a) incorporates the rule language from existing §117.143(a). The CO monitoring provisions in existing §117.143(b) are incorporated in new §117.3040(b); however, the actual monitoring methods in existing §117.143(b)(1) and (2) are incorporated in new §117.8120. Therefore, new §117.3040(b) specifies that if the owner or operator chooses to monitor CO exhaust emissions, the methods specified in §117.8120 should be considered appropriate guidance for determining CO emissions.

New §117.3040(c) incorporates the ammonia monitoring provisions from existing §117.135(2)(B) because the continuous demonstration of compliance section is the most appropriate section for the ammonia monitor requirements. The ammonia monitoring procedures in existing §117.114(a)(4), referenced by existing §117.135(2)(B), are incorporated in a new §117.8130. New §117.3040(c) specifies that for units that inject urea or ammonia into the exhaust stream for NOX control, one of the ammonia monitoring procedures in new §117.8130 must be used to demonstrate compliance with the ammonia emission specification.

New §117.3040(d) incorporates the CEMS requirements from existing §117.135(c). The requirements for CEMS in existing §117.135(c) are sufficiently different from the requirements in §117.113(e) that referencing the general CEMS requirements for utility electric generation sources in new §117.8110(a) would result in substantive changes to the requirements for affected CEMS. Therefore, the new SIP is not merging the CEMS requirements in existing §117.135(c) with new §117.8110(a).

New §117.3040(e) incorporates the rule language from existing §117.135(d), concerning monitoring for acid rain peaking units. The new SIP adopts a new §117.3040(f) that incorporates the rule language from existing §117.135(e), concerning PEMS requirements. New §117.3040(f)(1) incorporates the provision in existing §117.135(f)(1), that specifies that the PEMS must predict the pollutant emissions in the units of the applicable emission specifications of the division. The new SIP adopts a new §117.3040(f)(2) that references the new §117.8110(b) as a replacement for the rule language in existing §117.135(f)(2) – (4). The general requirements for PEMS in new §117.8110(b) are identical to the requirements in existing §117.135(f)(2) – (4). Finally, the new SIP adopts new §117.3040(g) – (l) that incorporate the rule language from existing §117.135(f) – (k), respectively.

- The adopted provisions are consistent with 117.143, provide for on-going enforceability of the rule to a utility in east and central Texas thus should be given approval

#### Section 117.3045, Notification, Recordkeeping, and Reporting Requirements

New §117.3045, concerning notification, recordkeeping, and reporting requirements, incorporates the rule language from existing §117.149. New §117.3045(a) - (e) incorporate the rule language from existing §117.149(a) – (e).

- The adopted provisions are consistent with 117.149, provide for means of notification, recordkeeping, and reporting (enforceability) of the rule to a source in east and central Texas thus should be given approval

#### Section 117.3054, Final Control Plan Procedures

New §117.3054, concerning final control plan procedures, incorporates the rule language from existing §117.145.

- The adopted provisions are consistent with 117.145, provide for the process of enforceability NOx control requirements of the of the rule to a source in east and central Texas . Thus should be given approval.

#### Section 117.3056, Revision of Final Control Plan

New §117.3056, concerning revision of final control plan, incorporates the rule language from existing §117.147.

- The adopted provisions are consistent with 117.147, provide for operational flexibility to a participating source in east and central Texas by modifying its final plan. Thus should be given approval.

We are not evaluating the cement kiln related rule in this TSD. See 59 FR 15681, published March 26, 2004 for EPA-approved provisions of Chapter 117 concerning cement plants.

#### Section §117.3200, Applicability

New §117.3200 incorporates the applicability rule language from existing §117.461.

- The adopted provisions are consistent with 117.461, and necessary to find out if a water heater, small boiler, and process heater is subject to the rule requirements. Thus should be given approval.

#### Section 117.3201, Definitions



New §117.3201, concerning definitions, incorporates the rule language from existing §117.460. In addition, the new SIP deletes the definitions of direct-vent unit and power-vent unit. These definitions were added in the previous rulemaking because direct-vent and power-vent units were not required to meet the 10 ng/J NO<sub>x</sub> emission standard. Because new §117.3205, concerning emission specifications, specifies the same standard for all Type 0 water heaters manufactured on or after July 1, 2002, the separate emission specifications and definitions for direct-vent and power-vent units are superfluous. Subsequent definitions are renumbered accordingly.

- The adopted provisions are consistent with existing 117.460, and necessary to provide clarity. Thus should be given approval.

#### Section 117.3203, Exemptions

New §117.3203 incorporates the rule language regarding exemptions from existing §117.463. In addition, for new §117.3203(3), the new SIP changes the exemption in existing §117.463(3), concerning Type 0 units used exclusively to heat swimming pools and hot tubs. New §117.3203(3) adds language to allow Type 1 and 2 units at single-family residences to qualify for this exemption. It was the new SIP's intent that the exemption in existing §117.463(3) apply to water heaters used exclusively to heat swimming pools and hot tubs at single-family residences. Only Type 0 units were anticipated to be used for this purpose. The new SIP has become aware that some single-family residences have installed Type 1 or 2 units to heat swimming pools and hot tubs. Therefore, the new SIP is adopting this change to clarify the intent of the exemption. Type 1 and 2 units installed after the appropriate compliance dates at multi-family residences or commercial properties are still required to comply with emission limits set forth in new §117.3205.

- The adopted provisions are consistent with existing 117.460, and necessary to find out if a water heater, small boiler, and process heater is not subject to the rule requirements. Thus should be given approval.

#### Section 117.3205, Emission Specifications

New §117.3205, concerning emission specifications, incorporates the rule language from existing §117.465. Also, the new SIP adopts changes to existing §117.465(b) to implement the requirements of HB 965. For new §117.3205(b)(1), the language "but no later than December 31, 2006," in existing §117.465(b)(1) is removed to clarify that Type 0 units manufactured after July 1, 2002, must comply with the requirements in subsection (b)(1)(A) and (B) of this section. As previously discussed in this preamble, the existing NO<sub>x</sub> emission specifications, 10 ng/J of heat output or 15 ppmv at 3.0% O<sub>2</sub>, in existing §117.465(b)(2)(A) for Type 0 units (except power-vent and direct-vent units) are repealed. Therefore, new §117.3205(b) excludes these emission specifications for Type 0 units. In addition, the emission specifications for power-vent and direct-vent units in existing §117.465(b)(2)(B) are identical to the emission specifications in existing §117.465(b)(1) and new §117.3205(b)(1). Therefore, new §117.3205(b) excludes the emission specifications for power-vent and direct-vent units from existing §117.465(b)(3). All

Type 0 gas-fired water heaters, including power-vent and direct vent units, manufactured on or after July 1, 2002, are subject to the NO<sub>x</sub> emissions specifications in new §117.3205(b)(1). Finally, new §117.3205(b)(2) and (3) incorporate the rule language from existing §117.465(b)(4) and (5), respectively, concerning the emission specifications for Type 1 and 2 units.

- The adopted provisions are consistent with existing 117.465, also see discussions following Table E2 of this document. Thus should be given approval.

#### Section 117.3210, Certification Requirements

New §117.3210 incorporates the rule language from existing §117.467, concerning certification requirements. New §117.3210(a) and (b) incorporate the requirements from existing §117.467(a) and (b), respectively. In addition, for new §117.3210(a), the new SIP removes the date reference for Test Method 7. This change will allow the most recent versions of EPA Test Methods 7 through 7E to be used for the certification testing.

- The adopted provisions are consistent with existing 117.460, utilize the most recent date when referencing EPA-approved Test Methods of 40 CFR 60 Appendix A (Methods 7 through 7E), will assist in documentation and enforcement of the rule. Thus should be given approval.

#### Section 117.3215, Notification and Labeling Requirements

New §117.3215 incorporates the rule language from existing §117.469, concerning notification and label requirements.

- The adopted provisions are consistent with existing 117.469, will assist in documentation and enforcement of the rule. Thus should be given approval.

### DIVISION 4, EAST TEXAS COMBUSTION

The new SIP adopts a new Chapter 117, Subchapter E, Division 4, regarding new requirements for stationary, gas-fired reciprocating internal combustion engines in specified counties in the Northeast Texas area. The new Subchapter E, Division 4 is a part of the new SIP's eight-hour ozone attainment demonstration for the Dallas-Fort Worth eight-hour ozone nonattainment area. Any engines located in the Dallas-Fort Worth eight-hour ozone nonattainment area are not subject to this rule. Such engines are either currently regulated by equivalent or more stringent requirements under other divisions of Chapter 117 or are regulated in separate rulemakings concurrent with this rule. Therefore, applying this rule to the Dallas-Fort Worth eight-hour ozone nonattainment counties would be superfluous.

#### Section 117.3300, Applicability

New §117.3300 specifies that the new division applies to stationary, gas-fired reciprocating internal combustion engines in certain counties in the Northeast Texas area. The specific counties included in the applicability for this rulemaking include the following counties: Anderson, Brazos, Burleson, Camp, Cass, Cherokee, Franklin, Freestone, Gregg, Grimes, Harrison, Henderson, Hill, Hopkins, Hunt, Lee, Leon, Limestone, Madison, Marion, Morris, Nacogdoches, Navarro, Panola, Rains, Robertson, Rusk, Shelby, Smith, Titus, Upshur, Van Zandt, and Wood Counties. Based on comments received by TCEQ, Bosque, Cooke, Grayson, Hood, Somervell, and Wise Counties have been removed from the applicability of the adopted rule.

- The adopted provisions are necessary to find out if a stationary, gas-fired reciprocating internal combustion engines in certain counties in the Northeast Texas area (33 Counties) is subject to the rule requirements. Thus should be given approval.

#### Section 117.3303, Exemptions

New §117.3303 specifies those stationary, reciprocating internal combustion engines that are exempt from the requirements of Chapter 117, Subchapter E, Division 4. Based on comments received by TCEQ, *engines with a hp rating less than 240 hp and all gas-fired lean-burn engines are exempt from the rule. Diesel engines and dual-fuel engines are also exempt from the rule.* Section 117.3303 also exempts engines used: for research and testing; for performance verification and testing; solely to power other engines and gas-turbines during startups; exclusively for emergency situations, except for 100 hours of operation for testing and maintenance purposes; in response to and during any officially declared disaster or state of emergency; or directly and exclusively by the owner or operator for agricultural operations necessary for growing crops or raising of fowl or animals. While the exemption in §117.3303(5) was not specifically commented on, the new SIP has revised similar exemptions in §117.403 and §117.2103 based on comments received by TCEQ to allow for up to 100 hours per year for testing and maintenance purposes. The new SIP has revised §117.3303(5) to be consistent with the adopted changes to the similar exemptions in §117.403 and §117.2103.

- NO<sub>x</sub> emissions from a unit operating 100 hours or less for testing and maintenance per year is below the major source cut off limit, and is not considered problematic for applicability purposes.
- The adopted provisions are necessary to find out if a stationary, gas-fired reciprocating internal combustion engines in certain counties in the Northeast Texas area (33 Counties) is not subject to the rule requirements, and are consistent with exemptions in §117.403 and §117.2103. Thus should be given approval.

#### Section 117.3310, Emission Specifications for Eight-Hour Attainment Demonstration

The emission specifications for attainment demonstration, and additional requirements related to the emission specifications, are included in new §117.3310. As discussed elsewhere, gas-fired lean-burn engines are exempt from the adopted rule based on comments received by TCEQ.

Provisions in the adopted §117.3310 related to gas-fired lean-burn engines have been modified or removed to reflect this change. Section 117.3310(a) specifies the NOX emission specifications for stationary gas-fired reciprocating internal combustion engines. New §117.3310(a)(1) establishes a 1.00 g/hp-hr NOX emission specification for gas-fired rich-burn engines with a maximum rated capacity less than 500 hp. The NOX emission specifications for gas-fired rich-burn engines with a maximum rated capacity equal to or greater than 500 hp are in new §117.3310(a)(2) and include 0.60 g/hp-hr for engines fired on landfill gas and 0.50 g/hp-hr on all other gas-fired rich-burn engines. NSCR technology is anticipated to be the primary control technology that will be used for rich-burn engines to meet the emission specifications. Some engines with maximum rated capacities equal to or greater than 500 hp may have to install an additional catalyst module with the NSCR control package in order to comply with the more stringent 0.50 g/hp-hr emission specification. No landfill gas-fired rich-burn engines were identified in the counties impacted by this rule. Should a landfill gas-fired rich-burn engine become subject to this rule, the 0.60 g/hp-hr emission specification is consistent with the emission specifications for this category of engines in the Houston-Galveston-Brazoria ozone nonattainment area and is achievable through combustion modifications rather than installation of NSCR.

A block one-hour averaging time for determining compliance with the NOX emission specifications is specified in new §117.3310(b). The block one-hour average must be calculated in the units of the applicable standard. New §117.3310(c) specifies that the maximum rated capacity used to determine the applicability of the emission specifications of §117.3310(a) or the exemption status of a unit under §117.3303(1) must be the greater of the maximum rated capacity as of December 31, 2000, or the maximum rated capacity after December 31, 2000.

New §117.3310(d) specifies that a unit's classification is determined by the most specific classification applicable to the unit as of December 31, 2000. For example, a unit that is classified as a stationary gas-fired engine as of December 31, 2000, but subsequently is authorized to operate as a dual-fuel engine, must be classified as a stationary gas-fired engine for the purposes of this rule. As discussed elsewhere in this preamble, the new SIP has removed the CO emission specification from §117.3310(e) based on comments received by TCEQ. The adopted §117.3310(e) establishes the emission specification for ammonia and specifies that the owner or operator of any unit subject to the NOX emission specifications of subsection (a) shall not allow the discharge into the atmosphere ammonia emissions in excess of 10 ppmv at 3.0% O<sub>2</sub>, dry basis. The averaging times for the ammonia specification are specified in new §117.3310(e)(1) and (2). Paragraph (1) specifies a block one-hour averaging period for units not equipped with a CEMS or PEMS for ammonia. Paragraph (2) specifies a rolling 24-hour averaging period for units equipped with CEMS or PEMS for ammonia. Finally, new §117.3310(f) specifies that an owner or operator may use emission reductions credits as specified in §117.9800 of this title to comply with the NOX emission specifications of this section.

- The adopted provisions concerning stationary, gas-fired reciprocating internal combustion engines in certain counties in the Northeast Texas area (33 Counties) took into account comments sent to the State during its rulemaking, maintains NSCR technology as an option rather than a mandate, incorporates the December 31, 2000 date as the reference date when establishing the maximum rated capacity applicability trigger dates to avoid confusion, and allows for units equipped with CEMS or PEMS to use a 24-

hour rolling averaging period. Thus should be given approval.

- Please be advised that per TCEQ's request 117.3310(e) will not become a part of EPA-approved Texas SIP revision.

#### Section 117.3325, Alternative Case Specific Specifications

New §117.3325, Alternative Case Specific Specifications, sets forth provisions for alternative case specific emission specifications for ammonia. As discussed elsewhere in this preamble, the new SIP is not adopting the CO emission specification that was proposed in §117.3310(e). Therefore, all references to CO in the adopted §117.3325 have been removed. Section 117.3325(a) specifies that the executive director may approve emission specifications different from the ammonia specifications for a unit where a person can demonstrate that the affected unit cannot attain the ammonia specification of §117.3310(e). Subsection (a)(1) specifies that the executive director shall consider on a case-by-case basis the technological and economic circumstances of the individual unit. Subsection (a)(2) requires that the executive director must determine that such specifications are the result of the lowest emission specification the unit is capable of meeting after the application of controls to meet the NOX emission specifications of §117.3310. Subsection (a)(3) specifies that the executive director, in determining whether to approve alternative emission specifications, may take into consideration the ability of the plant at which the unit is located to meet emission specifications through system-wide averaging at maximum capacity. Finally, §117.3325(b) specifies that any owner or operator affected by the executive director's decision to deny an alternative case specific emission specification may file a motion to overturn the executive director's decision, and that the requirements of §50.139 (relating to Motion to Overturn Executive Director's Decision) apply to §117.3325.

- The adopted provisions provide for alternate emissions limitations provides for operational flexibility to a combustion source in designated 33 Northeast Texas County area as circumstances may warrant.
- Please be advised that per TCEQ's request 117.3325 will not become a part of EPA-approved Texas SIP revision.

#### Section 117.3330, Operating Requirements

Operating requirements for units subject to the emission specifications of the division are listed in new §117.3330. New §117.3330(a) specifies that the owner or operator shall operate any unit subject to the emission specifications in compliance with those specifications. New §117.3330(b) specifies that all units subject to the emission specifications must be operated so as to minimize NOX emissions consistent with the emission control techniques selected, over the unit's operating or load range during normal operations. New §117.3330(b)(1) requires that each unit controlled with post-combustion control techniques must be operated such that the reducing agent injection rate is maintained to limit NOX concentrations to less than or equal to the NOX concentrations achieved at maximum rated capacity. New §117.3330(b)(2) requires that each stationary internal combustion engine controlled with NSCR must be equipped with an automatic AFR controller

that operates on exhaust O<sub>2</sub> or CO control and maintains the AFR in the range required to meet the engine's applicable emission specifications. New §117.3330(b)(3) requires that each stationary internal combustion engine must be checked for proper operation according to new §117.8140(b). As discussed elsewhere in this preamble, the new SIP is not adopting the CO emission specification that was proposed in §117.3310(e). Therefore, the adopted §117.3330(b)(3) is revised to specify that the engine must be checked for proper operation by recorded NOX measurements according to §117.8140(b). This testing includes recorded measurements of NOX emissions at least quarterly and as soon as practicable within two weeks after each occurrence of engine maintenance that may reasonably be expected to increase emissions, O<sub>2</sub> sensor replacement, catalyst cleaning, or catalyst replacement. New §117.8140(b) also specifies that stain tubes and portable NOX analyzers are acceptable for this documentation. The quarterly emission testing is not required for those engines whose monthly run time does not exceed ten hours; however, this exemption does not apply to the requirement to test emissions after installation of controls, major repair work, or any time the owner or operator has reason to believe the emissions may have changed. In addition, while not specifically commented on, the new SIP has become aware that under the proposed rule an engine equipped with NOX CEMS or PEMS would still be required to perform this quarterly emission testing. Therefore, §117.3330(b)(3) is also revised to specify that engines equipped with a CEMS or PEMS to monitor NOX are exempt from the requirements of subsection (b)(3).

- The adopted provisions establish criteria for operating parameters of a combustion source in designated 33 Northeast Texas County, and should assist in compliance determinations. Thus should be given approval.

#### Section 117.3335, Monitoring, Notification, and Testing Requirements

New §117.3335 specifies the monitoring, notification, and testing requirements. As discussed elsewhere in this preamble, the new SIP is not adopting the CO emission specification that was proposed in §117.3310(e). Because the adopted rule excludes a CO emission specification, the requirements for performing CO testing have also been removed from §117.3335. New §117.3335(a) and (b) require that if the owner or operator installs a CEMS or PEMS to monitor O<sub>2</sub> or NOX, the CEMS or PEMS must meet the requirements of new §117.8100(a) or (b), as applicable. New §117.3335(c) specifies that if the owner or operator elects to install CEMS or PEMS, the installation and certification of the monitoring systems must be in accordance with the compliance schedule in §117.9340.

New §117.3335(d) lists the testing requirements of units subject to the emission specifications of §117.3310. Section 117.3335(d)(1) requires that each unit must be tested for NOX and O<sub>2</sub> emissions and subsection (d)(2) requires that each unit that injects urea or ammonia for NOX control be tested for ammonia emissions. Subsection (d)(3) requires that all testing be conducted according to new §117.8000, which includes the general stack testing procedures and methods for Chapter 117. The specific requirements of new §117.8000 are discussed later in this preamble. New §117.3335(d)(3) also specifies the owner or operator of a natural gas-fired engine may use ASTM D6522-00 to perform the NOX and O<sub>2</sub> testing required in lieu of the methods specified in §117.8000. If ASTM D6522-00 is used, the test report must contain the information specified in new §117.8010.

New subsection (d)(4) requires that test results must be reported in the units of the applicable emission limits and averaging periods. New §117.3335(d)(5) specifies that, for units equipped with CEMS or PEMS, the CEMS or PEMS must be installed and operational before testing under this subsection. Verification of operational status must, at a minimum, include completion of the initial monitor certification and the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device. New §117.3335(d)(6) specifies that on units operating with CEMS or PEMS, initial compliance with the emission specifications of §117.3310 of this title may be demonstrated using the CEMS or PEMS, after monitor certification testing, in lieu of the methods specified in §117.3335(d)(3).

New §117.3335(d)(7) specifies retesting requirements for units not operating with CEMS or PEMS. Engines must be periodically tested according to new §117.8140(a). The specific procedures and requirements in new §117.8140(a) are discussed later in this preamble. In addition, new §117.3335(d)(7)(A) requires retesting within 60 days after any modification that could reasonably be expected to increase the NOX emission rate. New §117.3335(d)(7)(B) allows retesting at the discretion of the owner or operator after any modification that could reasonably be expected to decrease the NOX emission rate, including, but not limited to, installation of post-combustion controls, low-NOX burners, low excess air operation, staged combustion (for example, overfire air), FGR, and fuel-lean and conventional (fuel-rich) reburn. New §117.3335(d)(8) specifies that testing be performed in accordance with the schedule specified in §117.9340.

New §117.3335(e) requires that each unit that injects urea or ammonia into the exhaust stream for NOX control must be monitored according to one of the ammonia monitoring procedures specified in new §117.8130. These ammonia monitoring procedures include the use of the mass balance equation in §117.8130(1), the molybdenum oxidizer and NOX analyzer approach in §117.8130(2), the use of stain tubes in §117.8130(3), or other methods approved by the executive director as allowed in §117.8130(4). New §117.3335(f) requires the owner or operator of an affected source to submit written notification of any CEMS or PEMS RATA or testing required under this section, except for any testing related to the ammonia monitoring specified in §117.3335(e), to the appropriate regional office and any local air pollution control agency having jurisdiction at least 15 days in advance of the date of RATA or testing.

- The adopted provisions establish criteria for monitoring, notification, and testing requirements of a combustion source in designated 33 Northeast Texas County, and should assist in compliance efforts. Thus should be given approval.

#### Section 117.3345, Recordkeeping and Reporting Requirements

New §117.3345(a) requires that the owner or operator of a unit subject to the emission specifications of §117.3310 maintain written or electronic records of the data specified in this subsection. Such records must be kept for a period of at least five years and must be made available upon request by authorized representatives of the executive director, the EPA, or local air pollution control agencies having jurisdiction. New §117.3345(a)(1) requires that records of hourly emissions be maintained for each unit using a CEMS or PEMS. New §117.3345(a)(2) specifies records for each stationary internal combustion engine subject to the emission specifications of §117.3310, including: emissions measurements required by §117.3330(b)(3);

and catalytic converter, air-fuel ratio controller, or other emissions-related control system maintenance, including the date and nature of corrective actions taken. As discussed elsewhere in this preamble, the new SIP is not adopting the CO emission specification that was proposed in §117.3310(e) and the requirement for CO testing have also been excluded from §117.3330(b)(3). Therefore, the recordkeeping requirement proposed in subsection (a)(3) for records of the CO measurements specified in §117.3330(b)(3) is not included in the adopted §117.3345(b). New subsection (a)(3) requires records of the results of initial certification testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS, PEMS, or steam-to-fuel or water-to-fuel ratio monitoring systems. New subsection (a)(4) requires the owner or operator to maintain records of the results of performance testing and new subsection (a)(5) requires records of the ammonia monitoring required by §117.3335(e).

New §117.3345(b) specifies that written records of the number of hours of operation for each day's operation must be made for each engine claimed exempt under §117.3303(5) of this title or §117.3330(b)(3) of this title. New §117.3330(b)(3) references the engine testing provisions in new §117.8140(b), which also includes an exemption for which new §117.3345(b) will require written records. In addition, for each engine claimed exempt under §117.3303(5) of this title, written records must be maintained that reflect the purpose of engine operation and, if operation was for an emergency situation, identification of the type of emergency situation and the start and end times and dates of the emergency situation. The records must be maintained for at least five years and must be made available upon request to representatives of the executive director, the EPA, or any local air pollution control agency having jurisdiction.

New §117.3345(c) specifies that, except for the ammonia monitoring requirements of §117.3335(e), the owner or operator of an affected unit must furnish the appropriate regional office and the Office of Compliance and Enforcement reports of all testing and monitor certification required under new §117.3335. Reports must be submitted for review and approval within 60 days after completion of the testing and must contain the information specified in new §117.8010. In addition, in response to comments received, the new SIP has revised §117.3345(c) to clarify that the quarterly testing under §117.3330(b)(3) is not subject to the reporting requirements of §117.3345(c).

- The adopted provisions establish criteria for recordkeeping and reporting requirements of a combustion source in designated 33 Northeast Texas County, including when a source uses CEMS or PEMS, requires records to be maintained for 5 years. These requirements should assist with the compliance efforts. Thus should be given approval.

## **SUBCHAPTER F: ACID MANUFACTURING**

### Section 117.4000, Applicability

New §117.4000 incorporates the rule language from existing §117.301, concerning the applicability for adipic acid manufacturing.

- The adopted provisions are consistent with existing 117.301, and necessary to find out if an adipic acid manufacturing source is subject to the rule requirements. Thus should be given approval.



### Section 117.4005, Emission Specifications

New §117.4005 incorporates the rule language from existing §117.305 concerning the emission specifications for units subject to the Adipic Acid Manufacturing Division.

- The adopted provisions are consistent with existing 117.305, and necessary to establish emissions specifications from an adipic acid manufacturing source. Thus should be given approval.

### Section 117.4025, Alternative Case Specific Specifications

New §117.4025 incorporates the rule language from existing §117.321, concerning provisions for alternative case specific specifications for units that cannot attain the emission specifications in new §117.4005.

- The adopted provisions are consistent with existing 117.321, and provide for alternate emissions limitations or operational flexibility to an adipic acid manufacturing source as circumstances may warrant. Thus should be given approval.

### Section 117.4035, Initial Demonstration of Compliance

New §117.4035 incorporates the rule language from existing §117.311, concerning initial demonstration of compliance for units subject to the emission specifications in new §117.4005.

- The adopted provisions are consistent with existing 117.311, establish criteria for the initial compliance demonstration, assist with the enforcement efforts. Thus should be given approval.

### Section 117.4040, Continuous Demonstration of Compliance

New §117.4040 incorporates the rule language from existing §117.313, concerning continuous demonstration of compliance for units subject to the emission specifications in new §117.4005. New §117.4040(a) – (e) incorporate the rule language from existing §117.313(a) – (e). In addition, for new §117.4040(c), the reference to existing §117.213(f) is changed to reference new §117.8100(b). The requirements for PEMS in existing §117.213(f) are incorporated in new §117.8100(b).

- The adopted provisions are consistent with existing 117.313, establish criteria for the on-going compliance demonstration, assist with the enforcement efforts. Thus should be given approval.

### Section 117.4045, Notification, Recordkeeping, and Reporting Requirements

New §117.4045 incorporates the rule language from existing §117.319, concerning notification,

recordkeeping, and reporting requirements for affected facilities subject to the emission specifications in new §117.4005.

- The adopted provisions are consistent with existing 117.319, establish criteria for the notification, recordkeeping, and reporting requirements, assist with the enforcement efforts. Thus should be given approval.

#### Section 117.4050, Control Plan Procedures

New §117.4050 incorporates the rule language from existing §117.309, concerning the control plan procedures for persons affected by the division.

- The adopted provisions are consistent with existing 117.309, establish criteria for the control plan, provide for enforceability of the rule. Thus should be given approval.

#### Nitric Acid Manufacturing – Ozone Nonattainment Areas.

#### Section 117.4100, Applicability

New §117.4100 incorporates the rule language from existing §117.401, concerning the applicability for nitric acid manufacturing in ozone nonattainment areas.

- The adopted provisions are consistent with existing 117.401, and necessary to find out if a nitric acid manufacturing source in ozone nonattainment area is subject to the rule requirements . Thus should be given approval.

#### Section 117.4105, Emission Specifications

New §117.4105 incorporates the rule language from existing §117.405, concerning the emission specifications for affected nitric acid manufacturing units in ozone nonattainment areas.

- The adopted provisions are consistent with existing 117.405, and necessary to establish emissions specifications from a nitric acid manufacturing source in ozone nonattainment area. Thus should be given approval.

#### Section 117.4125, Alternative Case Specific Specifications

New §117.4125 incorporates the rule language from existing §117.421, concerning provisions for alternative case specific specifications for units that cannot attain the emission specifications in new §117.4105.

- The adopted provisions are consistent with existing 117.421, and provide for alternate emissions limitations or operational flexibility to a nitric acid manufacturing source in ozone nonattainment area as circumstances may warrant thus should be given approval

### Section 117.4135, Initial Demonstration of Compliance

New §117.4135 incorporates the rule language from existing §117.411, concerning initial demonstration of compliance for units subject to the emission specifications in new §117.4105.

- The adopted provisions are consistent with existing 117.411, establish criteria for the initial compliance demonstration for a nitric acid manufacturing source in ozone nonattainment area, assist with the enforcement efforts. Thus should be given approval.

### Section 117.4140, Continuous Demonstration of Compliance

New §117.4140 incorporates the rule language from existing §117.413, concerning continuous demonstration of compliance for units subject to the emission specifications in new §117.4105. New §117.4140(a) – (e) incorporate the rule language from existing §117.413(a) – (e). In addition, for new §117.4140(c), the reference to existing §117.213(f) is changed to reference new §117.8100(b). The requirements for PEMS in existing §117.213(f) are incorporated in new §117.8100(b).

- The adopted provisions are consistent with existing 117.413, establish criteria for the ongoing compliance demonstration for a nitric acid manufacturing source in ozone nonattainment area, assist with the enforcement efforts. Thus should be given approval.

### Section 117.4145, Notification, Recordkeeping, and Reporting Requirements

New §117.4145 incorporates the rule language from existing §117.419, concerning notification, recordkeeping, and reporting requirements for affected facilities subject to the emission specifications in new §117.4105.

- The adopted provisions are consistent with existing 117.419, establish criteria for the notification, recordkeeping, and reporting requirements demonstration for a nitric acid manufacturing source in ozone nonattainment area, assist with the enforcement efforts. Thus should be given approval.

### Section 117.4150, Control Plan Procedures

New §117.4150 incorporates the rule language from existing §117.409, concerning the control plan procedures for persons affected by the division.

- The adopted provisions are consistent with existing 117.409, establish criteria for the control plan, provide for enforceability of the rule demonstration for a nitric acid manufacturing source in ozone nonattainment area. Thus should be given approval.

Nitric Acid Manufacturing – General.

### Section 117.4200, Applicability

New §117.4200 incorporates the rule language from existing §117.451, concerning the general applicability for nitric acid production units, except for units in applicable ozone nonattainment areas.

- The adopted provisions are consistent with existing 117.451, and necessary to find out if a nitric acid manufacturing source (in an area except ozone nonattainment areas) is subject to the rule requirements. Thus should be given approval.

#### Section 117.4205, Emission Specifications

New §117.4205 incorporates the rule language from existing §117.455 concerning the emission specification for affected nitric acid production units.

- The adopted provisions are consistent with existing 117.455, and necessary to establish emissions specifications from a nitric acid manufacturing source (in an area except ozone nonattainment areas). Thus should be given approval.

#### Section 117.4210, Applicability of Federal New Source Performance Standards

New §117.4210 incorporates the rule language from existing §117.458, concerning the applicability of 40 CFR Part 60, Subpart G (Standards of Performance for Nitric Acid Plants).

- The adopted provisions are consistent with 40 CFR Part 60, Subpart G (Standards of Performance for Nitric Acid Plants). Thus should be given approval.

### **SUBCHAPTER G: GENERAL MONITORING AND TESTING REQUIREMENTS**

#### Section 117.8000, Stack Testing Requirements

New §117.8000, Stack Testing Requirements, incorporates the common stack testing requirements from existing §117.211(e) and §117.479(e), concerning testing requirements for initial demonstration of compliance. New §117.8000(a) specifies that the requirements of new §117.8000 are applicable when required by a provision of Chapter 117. When owners or operators are required to comply with §117.8000, the relevant section of Chapter 117 references new §117.8000. New §117.8000(b) incorporates language from §117.479(e)(3) specifying that shorter test times may be used, if approved by the executive director. This provision is not included in existing §117.211(e). Incorporating the language in new §117.8000(b) will ensure that the executive director has sufficient flexibility to consider allowing shorter test times, if warranted, whether the testing is conducted at sites that are minor or major sources of NOX. New §117.8000(c)(1) – (3), (5), and (6) incorporate the test method requirements from existing §117.211(e)(1) – (5). Also, new §117.8000(c)(5) updates the section references to Test Method 1 and Performance Specification 2, because the EPA has reformatted the test methods and performance specifications from 40 CFR Part 60, Appendices A and B. The reference to §2.1 of Test Method 1 is changed to §11.1, and the reference to §3.2 of Performance Specification 2 is

changed to §8.1.3. In addition, the new SIP adopts a new §117.8000(c)(4) to specify that, for units that inject ammonia or urea to control NOX emissions, the methods required to determine ammonia are the Phenol-Nitroprusside Method, the Indophenol Method, or EPA Conditional Test Method 27. The initial demonstration of compliance requirements from existing §117.211 require ammonia testing on units that inject urea or ammonia for NOX control; however, existing §117.211 does not specify methods for conducting the ammonia testing. The methods in new §117.8000(c)(4) are the same methods required to determine the correction factor “d” from the mass balance equation approach of monitoring for ammonia slip in existing §117.114 and §117.214. Finally, new §117.8000(d) incorporates the language from existing §117.211(e)(6), concerning the provisions for EPA-approved alternative test methods and minor modifications to test methods.

- The adopted provisions establish framework and general stack testing requirements relevant to Chapter 117, incorporates Test Methods such as 40 CFR Part 60, Appendices A and B, updates reference dates for reformatted EPA Test Methods, provides language for using EPA-approved alternative test methods, should assist in enforceability of the rule. Thus should be given approval.

#### Section 117.8010, Compliance Stack Test Reports

New §117.8010, Compliance Stack Test Reports, incorporates the compliance stack test report content requirements from existing §117.211(g) that was commonly referenced from other divisions. New §117.8010 specifies that the requirements of new §117.8010 are applicable when required by a provision of Chapter 117. When owners or operators are required to comply with §117.8010, the relevant section of Chapter 117 references new §117.8010. The report content requirements from existing §117.211(g)(1) – (8) are incorporated in new §117.8010(1) – (8). Also, new §117.8010(8)(B) updates the section reference to Performance Specification 2, because the EPA has reformatted the test methods and performance specifications from 40 CFR Part 60, Appendices A and B. The reference to §9 of Performance Specification 2 is changed to §8.5.

- The adopted provisions establish requirements for compliance stack testing of sources subject to chapter 117. Incorporates Performance Specification 2 of 40 CFR part 60 Appendix F. Updates the reference dates for the reformatted EPA Test Methods, Appendices A and B. Should assist in enforceability of the rule. Thus should be given approval.

#### Section 117.8100, Emission Monitoring System Requirements for Industrial, Commercial, and Institutional Sources

New §117.8100 incorporates the general requirements from existing §117.213(e) and (f) for CEMS and PEMS used at industrial, commercial, and institutional sources to comply with a monitoring requirement of Chapter 117. New §117.8100(a) specifies that the requirements for CEMS in new §117.8100(a) are applicable when required by a provision of Chapter 117. When owners or operators are required to comply with §117.8100(a), the relevant section of Chapter 117 references new §117.8100. The requirements for CEMS in existing §117.213(e)(1) - (3), (5),

and (6) are incorporated in new §117.8100(a)(1) – (6). Existing §117.213(e)(4) includes CEMS requirements specific to the Houston-Galveston-Brazoria ozone nonattainment area and is not included in new §117.8100(a).

New §117.8100(b) specifies that the requirements for PEMS in new §117.8100(b) are applicable when required by a provision of Chapter 117. When owners or operators are required to comply with §117.8100(b), the relevant section of Chapter 117 references new §117.8100. The requirements for PEMS in existing §117.213(f)(2) – (7) are incorporated in new §117.8100(b)(1) – (6). Existing §117.213(f)(1) specifies that the PEMS must predict the pollutant emissions in the units of the applicable emission specifications of the division, and is not incorporated in new §117.8100(b) because division-specific requirements might apply.

The new SIP adopts a new §117.8100(c) that specifies that reports of any RATA performed in accordance with §117.8100 must comply with the new §117.8010, concerning compliance stack test report contents. New §117.8100(c) is necessary to clarify that the report for any RATA performed in accordance with §117.8100(a) or (b) must still meet the report content requirements.

- The adopted provisions are consistent with the existing 117.213(e) –(f), establish general requirements for CEMS or PEMS, adopts reporting requirements for RATAs performed for ICI sources, should assist in enforceability of the rule. Thus should be given approval.

#### Section 117.8110, Emission Monitoring System Requirements for Utility Electric Generation Sources

New §117.8110 incorporates the general requirements from existing §117.113(c) and (f) for CEMS and PEMS used at utility electric generation sources to comply with a monitoring requirement of Chapter 117. The requirements for CEMS and PEMS at utility electric generation sources in existing §117.113(c) and (f) are sufficiently different from the requirements for industrial, commercial, and institutional sources in existing §117.213 that combining the requirements for both source categories would result in significant substantive changes impacting owners and operators. Therefore, the new SIP has maintained the monitoring system requirements for CEMS and PEMS at a utility electric generation source separate from other source categories. New §117.8110(a) specifies that the requirements for CEMS in new §117.8110(a) are applicable when required by a provision of Chapter 117. When owners or operators are required to comply with §117.8110(a), the relevant section of Chapter 117 references new §117.8110. The requirements for CEMS in existing §117.113(c)(1) and (2) are incorporated in new §117.8110(a)(1) and (2). Existing §117.113(c)(3) is a Houston-Galveston-Brazoria ozone nonattainment area specific requirement for CEMS and is not incorporated into §117.8110(a). New §117.8110(b) specifies that the requirements for PEMS in new §117.8110(b) are applicable when required by a provision of Chapter 117. When owners or operators are required to comply with §117.8110(b), the relevant section of Chapter 117 references new §117.8110. The requirements for PEMS in existing §117.113(f)(2) – (4) are incorporated in new §117.8110(b)(1) – (3). Existing §117.113(f)(1) specifies that the PEMS must predict the pollutant emissions in the units of the applicable emission specifications of the division, and is not incorporated in new §117.8110(b) because division-specific requirements

might apply. In addition, the reference in existing §117.113(f)(4)(B) to existing §117.213(f) is changed to §117.8100(b), because the applicable requirements from §117.213(f) are incorporated in new §117.8100(b).

- The adopted provisions are consistent with the existing 117.213(c) and (f), establish general requirements for CEMS or PEMS for utility electric generation sources, should assist in enforceability of the rule. Thus should be given approval.

#### Section 117.8120, Carbon Monoxide (CO) Monitoring

New §117.8120 incorporates the CO monitoring requirements from existing §117.113(b) and §117.213(d), and the optional CO monitoring requirements from existing §117.143(b). New §117.8120 specifies that the requirements for CO monitoring in new §117.8120 are applicable when required by a provision of Chapter 117. When owners or operators are required to comply with §117.8120, the relevant section of Chapter 117 references new §117.8120. The references to applicable subsections for CEMS or PEMS used to monitor CO in existing §§117.113(b)(1), 117.143(b)(1), and 117.213(b)(1) are changed to new §117.8100(a) or §117.8110(a) and §117.8100(b) or §117.8110(b), as applicable.

- The adopted provisions are consistent with the existing 117.113(b) and 117.213(d), provides CO monitoring as an option to an affected source in 117.143(b), contains general requirements for CEMS or PEMS for CO emissions in chapter 117, should assist in enforceability of the rule. Thus should be given approval.

#### Section 117.8130, Ammonia Monitoring

New §117.8130 incorporates the ammonia monitoring requirements from existing §117.114(a)(4) and §117.214(a)(1)(D) that are commonly referenced from various divisions of Chapter 117. New §117.8130 specifies that the requirements for ammonia monitoring in new §117.8130 are applicable when required by a provision of Chapter 117. When owners or operators are required to comply with §117.8130, the relevant section of Chapter 117 references new §117.8130. Existing §117.114(a)(4)(A) – (D) and §117.214(a)(1)(D)(i) – (iv) are incorporated in new §117.8030(1) – (4). The O<sub>2</sub> correction for ammonia concentrations to 3.0% for boilers and 15% for gas turbines in the equation in existing §117.114(a)(4)(A) is identical to the O<sub>2</sub> corrections for boilers and gas turbines in existing §117.214(a)(1)(D)(i); therefore, new §117.8030(1) incorporates the O<sub>2</sub> correction criteria for the ammonia concentrations from §117.214(a)(1)(D)(i). The methods specified for variable “d” of the equations in §117.114(a)(4)(A) and §117.214(a)(1)(D)(i) are identical and are incorporated in new §117.8000(c)(4). Variable “d” of the equation in new §117.8130(1) specifies that the correction factor is the ratio of measured slip to calculated ammonia slip, where the measured slip is obtained from the stack sampling for ammonia during an initial demonstration of compliance required by Chapter 117 and using the methods specified in new §117.8000.

- The adopted provisions are consistent with the existing 117.114(a)(4) and 117.214(a)(1)(D), provides NH<sub>3</sub> monitoring as an option to an affected source in

117.214(a)(1)(D)(i), accounts for NH<sub>3</sub> emissions correction factor (d) in calculations [see equation in 117.8130(1)] for affected sources in chapter 117, should assist in enforceability of the rule. Thus should be given approval.

#### Section 117.8140, Emission Monitoring for Engines

New §117.8140 incorporates certain testing requirements for stationary internal combustion engines from existing §§117.208(d)(7), 117.213(g)(1), 117.214(b)(2), and 117.478(b)(5). New §117.8140(a), concerning periodic testing for engines, specifies that the requirements in new §117.8140(a) are applicable when required by a provision of Chapter 117. When owners or operators are required to comply with §117.8140(a), the relevant section of Chapter 117 references new §117.8140(a). New §117.8140(a)(1) – (3) incorporate the engine testing provisions for NO<sub>x</sub> and CO from §117.213(g)(1)(A) – (C). New §117.8140(a)(1) specifies that the methods in new §117.8000 must be used. The provisions for testing on a biennial calendar basis or with 15,000 hours of operation in existing §117.213(g)(1)(B) are incorporated in new §117.8140(a)(2). The exemption from periodic testing in existing §117.213(g)(1)(C) for engines used exclusively in emergency situations is incorporated in new §117.8140(a)(3).

New §117.8140(b), concerning checks for proper operation of engines, specifies that the requirements in new §117.8140(a) are applicable when required by a provision of Chapter 117. New §117.8140(b) incorporates the engine-testing provisions for proper operation from §§117.208(d)(7), 117.214(b)(2)(A), and 117.478(b)(5). The exemption from quarterly testing for engines with a monthly run time of 10 hours or less in existing §117.214(b)(2)(A) and §117.478(b)(5) is only applicable in the Houston-Galveston-Brazoria ozone nonattainment area. This exemption is not in §117.208(d)(7). The new SIP is incorporating the exemption for engines with a monthly run time of 10 hours or less in new §117.8140(b), expanding the applicability of the exemption to affected engines in the Beaumont-Port Arthur and Dallas-Fort Worth ozone nonattainment areas. The provision in existing §117.214(b)(2)(A) and §117.478(b)(5) that specifies the exemption does not diminish the requirement to test emissions after installation of controls, major repair work, or any time the owner or operator believes emissions may have changed is also incorporated in new §117.8140(b).

- The adopted provisions are consistent with the existing 117.208(d)(7), 117.213(g)(1), 117.214(b)(2), and 117.478(b)(5) requirements for stationary internal combustion engines, should assist in enforceability of the rule. Thus should be given approval.

### **SUBCHAPTER H: ADMINISTRATIVE PROVISIONS**

#### Section 117.9000, Compliance Schedule for Beaumont-Port Arthur Ozone Nonattainment Area Major Sources

New §117.9000 incorporates the compliance schedule rule language from existing §117.520(a), applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.9000(1) incorporates the rule language from existing §117.520(a)(1), concerning the compliance schedule for RACT requirements. New §117.9000(2) incorporates the rule language from existing



§117.520(a)(2), concerning the compliance schedule for lean-burn engine requirements, and new §117.9000(3) incorporates the rule language from existing §117.520(a)(3), concerning the compliance schedule for requirements associated with the emission specifications for attainment demonstration. In addition, as previously indicated in this preamble, the new SIP is incorporating general requirements from existing §117.213 for CEMS and PEMS at industrial, commercial, and institutional sources in a new §117.8100. Therefore, for new §117.9000(1)(B)(i) and (3)(B)(iii), the new SIP changes the reference for the CEMS or PEMS performance evaluation and quality assurance procedures from existing §117.213(e)(1)(A) and (B) and (f)(3) – (5)(A) to the new §117.8100(a)(1)(A) and (B) and (b)(2) – (4)(A). Also, existing §117.520(a)(3)(C)(ii) incorrectly references to semiannual reports required by existing §117.213(c)(1)(C). Existing §117.213(c)(1)(C) does not include a requirement for semiannual reports. Therefore, the new SIP excludes this cross-reference from the new §117.9000(3)(C)(ii).

- The adopted provisions are consistent with the existing 117.520(a) for the Beaumont-Port Arthur ozone nonattainment area. See 71 FR 52670, approved by EPA September 6, 2006 and effective October 6, 2006. New 117.9000(2) is consistent with the rule language in existing 117.520(a)(2) applicable to lean-burn engine requirements. New 117.9000(3) incorporates the rule language from existing 117.520(a)(3) requirements. Thus should be given approval.

#### Section 117.9010, Compliance Schedule for Dallas-Fort Worth Ozone Nonattainment Area Major Sources

New §117.9010 incorporates the compliance schedule rule language from existing §117.520(b), applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.9010(1) incorporates the rule language from existing §117.520(b)(1)(A). New §117.9010(2) incorporates the rule language from existing §117.520(b)(1)(B). As previously indicated in this preamble, the new SIP is incorporating general requirements from existing §117.213 for CEMS and PEMS at industrial, commercial, and institutional sources in a new §117.8100. Therefore, for new §117.9010, the new SIP changes the reference for the CEMS or PEMS performance evaluation and quality assurance procedures from existing §117.213(e)(1)(A) and (B) and (f)(3) – (5)(A) to the new §117.8100(a)(1)(A) and (B) and (b)(2) – (4)(A). In addition, the compliance schedule in existing §117.520(b)(2), for engines subject to existing §117.206(b)(3), is incorporated in new §117.9030, concerning the compliance schedule for the Dallas-Fort Worth eight-hour ozone nonattainment area. The applicability for existing §117.520(b)(2) is the nine-county area of the Dallas-Fort Worth eight-hour ozone nonattainment area and new §117.9030 is the most appropriate location to incorporate these requirements.

- The adopted provisions are consistent with the existing 117.520(b) for the DFW ozone nonattainment area. See 71 FR 52670, approved by EPA September 6, 2006 and effective October 6, 2006. New 117.9010(1) is consistent with the rule language in existing 117.520(b)(1)(A). New 117.8100 for CEMS and PEMS at industrial, commercial, and institutional sources is consistent with existing 117.213. The CEMS or PEMS performance evaluation and quality assurance procedures in 117.8100(a)(1)(A) and (B) and (b)(2) – (4)(A) are consistent with existing 117.213(e)(1)(A) and (B) and

(f)(3) – (5)(A). Thus should be given approval.

- Please be advised that the compliance schedule(s) in this document are evaluated for Chapter 117 Control of Air Pollution from Nitrogen Compounds on the basis of NO<sub>x</sub> reductions (not previously required in EPA-approved Texas SIP), and not for RACT or ozone attainment demonstration purposes.

#### Section 117.9020, Compliance Schedule for Houston-Galveston-Brazoria Ozone Nonattainment Area Major Sources

New §117.9020 incorporates the compliance schedule rule language from existing §117.520(c), applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.9020(1) incorporates the rule language from existing §117.520(c)(1), concerning the compliance schedule for RACT requirements. New §117.9020(2) incorporates the rule language from existing §117.520(c)(2), concerning the compliance schedule for requirements associated with the emission specifications for attainment demonstration. In addition, as previously indicated in this preamble, the new SIP is incorporating general requirements from existing §117.213 for CEMS and PEMS at industrial, commercial, and institutional sources in a new §117.8100. Therefore, for new §117.9020, the new SIP changes the reference for the CEMS or PEMS performance evaluation and quality assurance procedures from existing §117.213(e)(1)(A) and (B) and (f)(3) – (5)(A) to the new §117.8100(a)(1)(A) and (B) and (b)(2) – (4)(A).

Finally, for new §117.9020(2)(B)(ii), the new SIP revises the compliance schedule language in existing §117.520(c)(2)(B)(ii) regarding submitting the certification of activity level for electric generating facilities subject to the system cap in existing §117.210. The current language in existing §117.520(c)(2)(B)(ii) might be incorrectly interpreted that an owner or operator is required to use the first two consecutive third quarters of actual activity level data out of the first five years of operation. The new SIP's intent in existing §117.210 and §117.520(c)(2)(B)(ii) is that the owner or operator may select any two consecutive third quarters of actual level of activity data out of the first five years of operation, and that the selection must be made no later than 60 days after the end of the first five years of operation. Therefore, the language in new §117.9020(2)(B)(ii) is revised to specify this requirement more accurately.

- The adopted provisions are consistent with the existing 117.520(c) for the DFW ozone nonattainment area. New 117.9020(1) is consistent with the rule language in existing 117.520(c)(1). New 117.9020(2) is consistent with the rule language in existing 117.520(c)(2). See 71 FR 52670, approved by EPA September 6, 2006 and effective October 6, 2006. New 117.8100 for CEMS and PEMS at industrial, commercial, and institutional sources is consistent with existing 117.213. The CEMS or PEMS performance evaluation and quality assurance procedures in 117.8100(a)(1)(A) and (B) and (b)(2) – (4)(A) are consistent with existing 117.213(e)(1)(A) and (B) and (f)(3) – (5)(A). Thus should be given approval.

#### Section 117.9030, Compliance Schedule for Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Major Sources

New §117.9030, Compliance Schedule for Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Major Sources, specifies the compliance schedules for units subject to the emissions specifications of §117.410 and §117.423. New §117.9030(a) specifies the compliance schedule for any stationary, reciprocating, internal combustion engines subject to the emission specifications of §117.410(a), and incorporates the existing compliance schedule rule language from existing §117.520(b)(2). New §117.9030(a)(1) incorporates the rule language from existing §117.520(b)(2)(A). New §117.9030(a)(2) and (a)(2)(A) – (D) incorporate the rule language from existing §117.520(b)(2)(B) and (B)(i) – (iv).

In addition, for new §117.9030(a)(1)(C), the new SIP is revising the requirement in existing §117.520(b)(2)(B)(iii) to submit final control plans required by existing §117.215. As previously indicated in this preamble, the new SIP is incorporating the requirements for engines subject to existing §117.206(b)(3) and §117.520(b)(2) in the new division for the Dallas-Fort Worth eight-hour ozone nonattainment area. Existing §117.520(b)(2)(B)(iii) incorrectly references the final control plan procedures for RACT. The correct cross-reference for final control plans for engines subject to existing §117.206(b)(3) should be existing §117.216, Final Control Plan Procedures for Attainment Demonstration Emission Specifications. Therefore, the applicable final control plan procedures for attainment demonstration emission specifications for the engines under new Subchapter B, Division 3 are in new §117.454. Because this change could result in a change in the information required, the new SIP is changing the compliance date in new §117.9030(a)(1)(C) for submitting the final control plans to January 1, 2008. The new SIP is not changing any other existing compliance schedule requirements from existing §117.520(b)(2). New §117.9030(b) specifies the compliance schedule requirements for units subject to the emissions specifications of §117.410(b). Based on comments received, the new SIP has revised the compliance schedule in §117.9030(b) to provide additional time for certain sources to comply with the requirements of the rule. New §117.9030(b)(1) establishes the compliance schedule for existing sources subject to the rule. Subparagraph (A) requires the owner or operator of any stationary source of NOX in the Dallas-Fort Worth eight-hour ozone nonattainment area that is a major source of NOX and is subject to §117.410(b) to submit the initial control plan required by §117.450 of this title no later than June 1, 2008. Subparagraph (B) requires owners or operators of units subject to the emission specifications of §117.410(b) to comply with all other requirements of Subchapter B, Division 4 as soon as practicable, but no later than March 1, 2009, or March 1, 2010, depending on the source category of the unit. Section 117.9030(b)(1)(B)(i) establishes a compliance date of March 1, 2009, for units subject to §117.410(b)(1), (2), (4), (5), (6), (7)(A), (8), (10), and (14). Section 117.9030(b)(1)(B)(ii) establishes a compliance date of March 1, 2010, for units subject to §117.410(b)(3), (7)(B), (9), (11), (12), and (13). EPA is *not* approving the compliance schedule of March 1, 2010 for major sources within the DFW nine County area set forth in section 117.9030(b)(1)(B)(ii), at this time,

even though Texas asserts that the selection of the source categories for the two compliance schedules was based on the number of sources in each category, the type of controls likely to be implemented to meet the adopted emission specifications, the time required to implement those controls, and the amount of reductions expected from each source category. Some source categories may require more time to comply with the rule due to the procurement and installation times of the control technologies necessary or because the large number of units in a particular source category requiring retrofit controls might limit vendors' ability to meet demand. The adopted compliance schedule focuses the maximum reductions possible by March 1, 2009. New

subparagraph (C) requires owners or operators of diesel and dual-fuel engines to comply with the restriction on hours of operation for maintenance and testing in §117.410(g), and the associated recordkeeping in §117.445(f)(9), as soon as practicable, but no later than March 1, 2009. New subparagraph (D) requires owners or operators of any stationary gas turbine or stationary internal combustion engine claimed exempt under §117.403(a)(7)(D), (8), or (9) to comply with the run time meter requirements of §117.440(i), and associated recordkeeping in §117.445(f)(4), as soon as practicable, but no later than March 1, 2009. New §117.9030(b)(2) specifies the owner or operator of any stationary source of NOX that becomes subject to the requirements of Subchapter B, Division 4 of this chapter on or after the applicable compliance date specified in §117.9030(b)(1), shall comply with the requirements of Subchapter B, Division 4 as soon as practicable, but no later than 60 days after becoming subject. For example, new boilers placed into service after March 1, 2009, will be required to comply within 60 days after startup of the unit. Existing units previously exempt from the rule, but no longer qualifying for that exemption after the applicable compliance date, will be required to comply with the rule no later than 60 days after the date that the exemption status was lost.

- The adopted provisions are consistent with the existing 117.410 and 117.423 for the DFW ozone nonattainment area. New 117.9030(a) is consistent with the rule language in existing 117.520(b)(2). See 71 FR 52670, approved by EPA September 6, 2006 and effective October 6, 2006. New 117.9030(a)(1)(c) is required by the existing 117.215. Thus should be given approval.

Please be advised that the compliance schedule(s) in this document are evaluated for Chapter 117 Control of Air Pollution from Nitrogen Compounds on the basis of NOx reductions and not for RACT or attainment determination purposes.

#### Section 117.9100, Compliance Schedule for Beaumont-Port Arthur Ozone Nonattainment Area Utility Electric Generation Sources

New §117.9100 incorporates the compliance schedule rule language from existing §117.510(a), applicable to the Beaumont-Port Arthur ozone nonattainment area. New §117.9100(1) incorporates the rule language from existing §117.510(a)(1), concerning the compliance schedule for RACT requirements. New §117.9100(2) incorporates the rule language from existing §117.510(a)(2), concerning the compliance schedule for requirements associated with the emission specifications for attainment demonstration.

- The adopted provisions are consistent with the existing 117.510(a). New 117.9100(1) is consistent with the rule language in existing 117.520(a)(1). New 117.9100(2) incorporates the rule language from existing §117.510(a)(2). See 71 FR 52670, approved by EPA September 6, 2006 and effective October 6, 2006. Thus should be given approval.

#### Section 117.9110, Compliance Schedule for Dallas-Fort Worth Ozone Nonattainment Area Utility Electric Generation Sources

New §117.9110 incorporates the compliance schedule rule language from existing §117.510(b), applicable to the Dallas-Fort Worth ozone nonattainment area. New §117.9110(1) incorporates the rule language from existing §117.510(b)(1), concerning the compliance schedule for RACT requirements. New §117.9110(2) incorporates the rule language from existing §117.510(b)(2), concerning the compliance schedule for requirements associated with the emission specifications for attainment demonstration.

- The adopted provisions are consistent with the existing 117.510(b). New 117.9110(1) is consistent with the rule language in existing 117.520(b)(1). New 117.9110(2) incorporates the rule language from existing §117.510(b)(2). See 71 FR 52670, approved by EPA September 6, 2006 and effective October 6, 2006. Thus should be given approval.

#### Section 117.9120, Compliance Schedule for Houston-Galveston-Brazoria Ozone Nonattainment Area Utility Electric Generation Sources

New §117.9120 incorporates the compliance schedule rule language from existing §117.510(c), applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.9120(1) incorporates the rule language from existing §117.510(c)(1), concerning the compliance schedule for RACT requirements. New §117.9120(2) incorporates the rule language from existing §117.510(c)(2), concerning the compliance schedule for requirements associated with the emission specifications for attainment demonstration.

- The adopted provisions are consistent with the existing 117.510(c). New 117.9120(1) is consistent with the rule language in existing 117.520(c)(1). New 117.9120(2) incorporates the rule language from existing §117.510(c)(2). See 71 FR 52670, approved by EPA September 6, 2006 and effective October 6, 2006. Thus should be given approval.

#### Section 117.9130, Compliance Schedule for Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Utility Electric Generation Sources

New §117.9130, Compliance Schedule for Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Utility Electric Generation Sources, specifies the compliance schedule for owners or operators subject to the new Subchapter C, Division 4. New §117.9130(a) specifies the compliance schedule for existing units subject to the rule. New §117.9130(a)(1) requires the owner or operator to submit the initial control plan required by new §117.1350 by no later than June 1, 2008. New §117.9130(a)(2) specifies that the owner or operator must comply with all other requirements of new Subchapter C, Division 4 as soon as practicable, but no later than March 1, 2009. Finally, the new SIP adopts a new §117.9130(b) that specifies, for units in the Dallas-Fort Worth eight-hour ozone nonattainment area that become subject to new Subchapter C, Division 4 on or after March 1, 2009, the owner or operator must comply as soon as practicable, but no later than 60 days after becoming subject.

- The adopted provisions specify the compliance schedule for both existing and future owners or operators subject to the new Subchapter C, Division 4, the owner or operator must comply with the compliance schedule as soon as practicable, but no later than March 1, 2009. The adopted provisions assist with the enforceability of the rule. Thus should be given approval.

#### Section 117.9200, Compliance Schedule for Houston-Galveston-Brazoria Ozone Nonattainment Area Minor Sources

New §117.9200 incorporates the compliance schedule rule language from existing §117.534, concerning the compliance schedule for boilers, process heaters, stationary engines and stationary gas turbines at minor sources applicable to the Houston-Galveston-Brazoria ozone nonattainment area. New §117.9200(1) incorporates the rule language from existing §117.534(1), concerning the compliance schedule for sources subject to the MECT Program. New §117.9200(2) incorporates the rule language from existing §117.534(2), concerning the compliance schedule for sources not subject to the MECT Program. In addition, as previously indicated in this preamble, the new SIP is incorporating general requirements from existing §117.213 for CEMS and PEMS at industrial, commercial, and institutional sources in a new §117.8100. Therefore, for new §117.9200, the new SIP changes the reference for the CEMS or PEMS performance evaluation and quality assurance procedures from existing §117.213(e)(1)(A) and (B) and (f)(3) – (5)(A) to the new §117.8100(a)(1)(A) and (B) and (b)(2) – (4)(A).

- The adopted provisions are consistent with the existing 117.534. New 117.9200(1) is consistent with the rule language in existing 117.534(1). New 117.9200(2) incorporates the rule language from existing §117.534(2). The PEMS or CEMS requirements from existing 117.213 are incorporated in 117.9200. The adopted provisions assist with the enforceability of the rule. Thus should be given approval.

#### Section 117.9210, Compliance Schedule for Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Minor Sources

New §117.9210 specifies the compliance schedule for sources subject to the new Subchapter D, Division 2, Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Minor Sources. Based on comments received, the new SIP has revised the compliance schedule to provide additional time for certain source categories to comply with the rule. Also, as discussed elsewhere in this preamble, boiler, process heaters, and stationary gas turbines at minor sources are not subject to the adopted rule. Provisions in the adopted §117.9210 related to boilers, process heaters, and stationary gas turbines have been modified or removed to reflect this change, and the provisions renumbered as necessary. The adopted §117.9210(a) specifies the owner or operator of each stationary source of NOX in the Dallas-Fort Worth eight-hour ozone nonattainment area that is not a major source of NOX shall comply with the requirements of Subchapter D, Division 2 as soon as practicable, but no later than the dates specified in paragraphs (1) through (3). Rich-burn gas-fired, diesel, and dual-fuel stationary engines are required to comply with the requirements of the division by no later than March 1, 2009. Lean-burn stationary gas-fired engines must meet the requirements of the rule by no later than March 1, 2010.

New §117.9210(b) specifies the owner or operator of any stationary source of NOX in the Dallas-Fort Worth eight-hour ozone nonattainment area that becomes subject to the requirements of Subchapter D, Division 2 on or after the applicable compliance date in subsection (a), must comply with the requirements of Subchapter D, Division 2 as soon as practicable, but no later than 60 days after becoming subject.

- TCEQ has made new grants available to owners of the rich-burn compressor engines. TCEQ announced on June 22, 2007 availability of \$4 million in grants to retrofit rich-burn compressor engines to reduce emissions of nitrogen oxides (NOx) across Texas. Grants will serve as a partial reimbursement of the capital costs of installing a NOx reduction system in these engines. Areas with a number of rich-burn compressor engines, where rules have recently been implemented to reduce NOx emissions, include 33 counties in East Texas and the Dallas-Fort Worth non-attainment area. Engines with the following emission limits qualify for reimbursement: a) 1.0 grams per horsepower hour for an engine with a rated maximum capacity of less than 500 horsepower; b) 0.60 grams per horsepower hour for an engine with a rated maximum capacity of 500 horsepower or greater, that is fired with landfill gas; or c) 0.50 grams per horsepower hour for an engine with a rated maximum capacity of 500 horsepower or greater, that is fired other than with landfill gas.
- According to TCEQ owners and operators of rich-burn compressor engines are encouraged to immediately begin efforts to install NOx emission reduction systems. The level of reimbursement for capitol costs is 75 percent if systems are installed and emissions reductions are verified between April 30 through August 1. Reimbursements drop to 50 percent if reductions are verified after July 31, 2007, and before April 1, 2008. The grants stem from implementation of SB 2000 sponsored by Sen. Kevin Eltife-Tyler. For more details see [http://www.tceq.state.tx.us/comm\\_exec/communication/media/06-07compressorenginegrants.html](http://www.tceq.state.tx.us/comm_exec/communication/media/06-07compressorenginegrants.html) (UNIVERSAL RESOURCE LOCATOR dating July 17, 2007).
- Please be advised that the compliance schedule(s) in this document are evaluated for Chapter 117 Control of Air Pollution from Nitrogen Compounds on the basis of NOx reductions not previously required in the Texas SIP [among such factors used TCEQ lists: the type of controls likely to be implemented to meet the adopted emission specifications, the time required to implement those controls, and the amount of reductions expected from each source category. Some source categories may require more time to comply with the rule due to the procurement and installation times of the control technologies necessary or because the large number of units in a particular source category requiring retrofit controls might limit vendors' ability to meet demand] that previously may not have been obtained or required rather than on the basis of an ozone attainment demonstration plan criteria [particularly 117.9210(a)(2)].

Section 117.9300, Compliance Schedule for Utility Electric Generation in East and Central Texas

New §117.9300 incorporates the compliance schedule rule language from existing §117.512, concerning the compliance schedule for utility electric generation in East and Central Texas. New §117.9300(1) incorporates the rule language from existing §117.512(1), and new §117.9300(2) incorporates the rule language from existing §117.512(2).

- The adopted provisions are consistent with the existing 117.512. New 117.9300(1) is consistent with the rule language in existing 117.512(1). New 117.9300(2) incorporates the rule language from existing §117.512(2). The adopted provisions provide for uniformity in the rule. Thus should be given approval.

#### Section §117.9320, Compliance Schedule for Cement Kilns

New §117.9320 incorporates the rule language regarding the compliance schedule for cement kilns from existing §117.524. New §117.9320(a) and (b) incorporate the rule language from existing §117.524(a) and (b), respectively. In addition, for new §117.9320(a), the new SIP adds the language “Except as specified in subsection (c) of this section . . .” This change is necessary to clarify that the compliance schedule in subsection (a) is not applicable to the new requirements in §§117.3123, 117.3142, and 117.3145.

A new §117.9320(c) specifies that the owner or operator of each portland cement kiln in Ellis County must be in compliance with the requirements of §117.3123 and §117.3142, and the applicable requirements of §117.3145 as soon as practicable, but no later than March 1, 2009. In addition, new §117.9320(c)(1) specifies that the provisions in new §117.9320(b), regarding extension of compliance schedules, do not apply to subsection (c) or the requirements of §117.3123, §117.3142, or the applicable requirements of §117.3145. New §117.9320(c) is necessary to ensure that the required reductions under the source cap of §117.3123 occur by the date necessary to demonstrate attainment. However, based on comments received, the new SIP has revised §117.9320(c) to include a provision in new paragraph (2) that would extend the compliance date to no later than March 1, 2010, if a contested case hearing is granted as a direct result of a permit application necessary to comply with §117.3123. New §117.9320(c)(2) also specifies that the compliance date remains March 1, 2009, if a contested case hearing is granted under the conditions specified in subparagraphs (A) or (B). The condition in new subparagraph (A) is if the contested case hearing is granted as a result of a permit application that includes modifications necessary to comply with §117.3123, but the contested case hearing is the result of modifications included in the permit that are unrelated to compliance with §117.3123. The condition in new subparagraph (B) is if the contested case hearing is granted at the request of the owner or operator of the affected portland cement kiln or a third party affiliated with the owner or operators. The provisions of subparagraph (A) or (B) are necessary to ensure that the compliance date is only extended to March 1, 2010, if a contested case hearing is granted due to circumstances beyond the control of the affected site.

- As stated elsewhere in this document we are not evaluating the cement kiln-related provisions of rule at this time. In the meantime, the EPA-approved SIP provision of March 26, 2004 (59 FR 15681) will continue to remain in effect. We will act on the cement kiln-related provisions of chapter 117 submittal of May 2007 separately in a different rulemaking action.



#### Section 117.9340, Compliance Schedule for East Texas Combustion.

New §117.9340 specifies the compliance schedule for owner or operators to comply with the requirements of Chapter 117, Subchapter E, Division 4, East Texas Combustion. Based on comments received, the new SIP has determined that additional time is needed for affected owners or operators to comply with the requirements of the East Texas Combustion rule. Therefore, the new SIP has revised the compliance date from March 1, 2009, to March 1, 2010. The adopted §117.9340(a) specifies that the owner or operator of each stationary, reciprocating internal combustion engine subject to Subchapter E, Division 4 must comply with the requirements of Subchapter E, Division 4 as soon as practicable, but no later than March 1, 2010. Section 117.9340(b) specifies that the owner or operator of a stationary, reciprocating internal combustion engine that becomes subject to the requirements of Subchapter E, Division 4 on or after March 1, 2010, must comply with the requirements of that division as soon as practicable, but no later than 60 days after becoming subject.

- As State adopted this rule East Texas is still designated or classified as attainment for ozone. Please be advised that the compliance schedule(s) in this document are evaluated for Chapter 117 Control of Air Pollution from Nitrogen Compounds on the basis of NOx reductions [among such factors used TCEQ lists: the type of controls likely to be implemented to meet the adopted emission specifications, the time required to implement those controls, and the amount of reductions expected from each source category. Some source categories may require more time to comply with the rule due to the procurement and installation times of the control technologies necessary or because the large number of units in a particular source category requiring retrofit controls might limit vendors' ability to meet demand] that previously may not have been required rather than on the basis of an ozone attainment demonstration plan criteria [particularly 117.9340(a) and (b)]. EPA believes the compliance schedule is reasonable and makes the rule enforceable and should be given approval because these rules enhance the SIP.

#### Section 117.9500, Compliance Schedule for Nitric Acid and Adipic Acid Manufacturing Sources

New §117.9500 incorporates the compliance schedule rule language from existing §117.530, concerning the compliance schedule for nitric acid and adipic acid manufacturing sources. New §117.9500(1) – (3) incorporate the rule language from existing §117.530(1) – (3), respectively.

- The adopted provisions are consistent with the existing 117.530. New 117.9500(1)-(3) is consistent with the rule language in existing 117.530(1)-(3). The adopted provisions provide for uniformity in the rule. Thus should be given approval.

#### Section 117.9800, Use of Emission Credits for Compliance

New §117.9800 incorporates the rule language from existing §117.570, concerning the use of emission credits for compliance. New §117.9800(a) – (d) incorporate the rule language from existing §117.570(a) – (d), respectively. In addition, new §117.9800(a) is restructured for clarity.

The list of applicable sections in existing §117.570(a) is listed as separate paragraphs in new §117.9800(a)(1) – (8). Applicable section number references for the new rules for the Dallas-Fort Worth eight-hour ozone attainment demonstration are included in new §117.9800(a)(5), (7), and (8). Also, for new §117.9800(d), the list of applicable sections in existing §117.570(d), concerning final control plans, is also revised to include new §117.456 and §117.1356.

- The adopted provisions are consistent with the existing 117.570. New 117.9800(a)-(d) is consistent with the rule language in existing 117.570(a)-(d). Restructuring of new 117.9800(a) brings clarity to the rule. Also new 117.9800(d) contains list of applicable sections in existing §117.570(d) and their relevant final control plans. The adopted provisions provide for uniformity and operational flexibility in the rule. Thus should be given approval.

#### Section 117.9810, Use of Emission Reductions Generated from the Texas Emissions Reduction Plan (TERP)

New §117.9810 incorporates the rule language from existing §117.571, concerning the use of emission reductions generated from the Texas Emissions Reduction Plan. New §117.9810(a) and (b) incorporate and restructure for clarity the rule language from existing §117.571(a). New §117.9810(a) revises the applicability of §117.571 to include the Dallas-Fort Worth eight-hour ozone nonattainment area. The list of applicable sections in existing §117.571(a) is listed as separate paragraphs in new §117.9810(a)(1) – (6). Applicable section number references for the new rules for the Dallas-Fort Worth eight-hour ozone attainment demonstration are included in new §117.9810(a)(6). The rule language concerning provisions for obtaining emission reductions generated from TERP in existing §117.571(a)(1) - (6) is incorporated in new §117.9810(b) and (b)(1) - (6). Also, for new §117.9810(b)(6), the new SIP removes the language “of this division” regarding applicable emission reduction requirements, because this reference has no meaning under the new format for the division that incorporates this rule language. The new §117.9810(b)(6) specifies “applicable emission reduction requirements of this chapter.” Finally, new §117.9810(c) incorporates the rule language from existing §117.571(b).

### Texas Senate Bill 2000 Implementation Questions

**Question 1:** Can the draft RFGA be provided, or at least excerpted information re: testing and eligible costs?

The final RFGA will be posted soon. In the interim, here is guidance on testing and eligible costs:

**Testing** to verify that NOX emissions from the rich-burn compressor engine have been reduced to the levels required by Senate Bill 2000 must be performed according to the following test methods and procedures. Complete test reports must be submitted with the grant application.

- Test Method 7E or 20 (40 Code of Federal Regulations (CFR), Part 60, Appendix

A) or American Society for Testing and Materials (ASTM) D6522-00 (portable analyzer method) for nitrogen oxides (NOX ), and

- Test Method 2 (40 CFR 60, Appendix A) or Test Method 19 (40 CFR 60, Appendix A) in conjunction with measured fuel flow rate for exhaust gas flow.
- Test results must be reported in units of grams per horsepower-hour.
- Compliance must be determined by the average of three 30-minute emission test runs.

Only **direct capital costs** are eligible for reimbursement. These include the following:

- Equipment Purchase: Air-fuel ratio controller (AFR), catalyst housing, initial catalyst charge, solar power supply and battery pack for AFR controller, auxiliary equipment including ducting.
- Freight charges: For eligible equipment.
- Installation: Contractor labor, no in-house labor.
- Initial testing: Third Party Contractor working to demonstrate compliance with grant requirements. No in-house labor, no testing for another purpose.

**Question 2:** How will potential modifications to install new equipment affect permit requirements?

The addition of NSCR to an existing rich-burn engine would be considered an addition of control with no increase in pollution, eliminating the need for permitting action. Language is being considered to require adjustment of the engine authorization to reflect the lower emission rate.

**Question 3:** How will the program work with equipment rental companies? Who would need to apply for the grant? How would control of a rented engine affect any permit requirements the operator is subject to?

In order for controls to be installed on leased engines, there would have to be agreement between the owner of the engine and the lessee. Whichever party pays for the control equipment would apply for the grant. Only **stationary** engines would be eligible for a grant. The owner or operator of the site where the rented engine is operating would be July 18, 2007 responsible for making sure the engine is properly authorized if it meets the definition of a “stationary” engine.

**Question 4:** What is eligible?

We indicated that the program is only for retrofits. Apparently some engines already have NSCR but they will need a larger capacity catalyst bed in order to meet the emission requirements. Grant funds can be used for adding more catalyst to existing NSCR systems. An applicant who installs previously purchased catalyst available in inventory stock to upgrade controls on an eligible engine can be reimbursed for the cost of the catalyst and installation, provided that new catalyst is purchased to replace the inventory. Source see:

<http://www.tceq.state.tx.us/assets/public/implementation/air/sip/ruledocs/SB2000IQ.pdf>  
(UNIVERSAL RESOURCE LOCATOR dating July 31, 2007)

Also for additional information on the grants for emission reductions from rich-burn stationary compressor engines under Texas Senate Bill 2000 can be found at <http://www.tceq.state.tx.us/implementation/air/rules/sb2003.html#qualify>  
(UNIVERSAL RESOURCE LOCATOR dating July 31, 2007)

- The adopted provisions adopt language from existing 117.571. New 117.9810(a)-(b) is consistent with the rule language or structure in existing 117.571(a). New 117.9810(a)(1)-(6) list follows the applicable sections from existing 117.571(a). New §117.9810(c) utilizes the rule language from existing §117.571(b). Adoption of Texas Emissions Reduction Plan (TERP) funding mechanism in 117.9810 will allow for operational flexibility and promoting innovative means of emissions reductions in the rule. Thus should be given approval.

### **Section 110(l) Analysis:**

According to Section 110(l) of the 1990 Clean Air Act Amendments (the Act) “Each revision to an implementation plan submitted by a State under this Act shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress, or any other applicable requirement of this Act.”

The May 2007 SIP submittal includes documentation that State has met and complied with the reasonable notice and public hearing requirements. Per Appendix V to 40 CFR Part 51 and as a part of our review of the 30 TAC Chapter 117 we have completed a SIP Completeness Determination document to substantiate, among other things, the reasonable notice and public hearing requirements. The Completeness Determination document is also part of our docket and available for public review.

The May 2007 SIP submittal provides for additional NO<sub>x</sub> emissions reductions that were not previously a part of EPA-approved Texas SIP.

The May 2007 SIP submittal requires NO<sub>x</sub> reductions from sources or source categories not previously regulated.

The May 2007 SIP submittal requires NO<sub>x</sub> reductions from sources outside the DFW 8-hour ozone nonattainment area.

The resulting NO<sub>x</sub> reductions should assist in bringing the DFW area into attainment with the ozone NAAQS.

In support of their revision to the water heaters, small boilers, and process heaters provisions of Chapter 117, TCEQ provided a report titled “Technical and Economic Feasibility

Study” by TCEQ dating December 2005. This report concerns information on the technical and economic analysis justifying the repeal of this emission standard (117.3205). This report was based on the study required by the Texas HB 965, and subsequent comments received by TCEQ indicating that water heater manufacturers are currently unable to produce residential natural gas-fired water heaters that can meet the 10 ng/J NOx emission specification. In addition, American Gas Association (AGA) provided a report to TCEQ titled “Evaluation of NOx Emissions from Residential Water Heaters in Texas” dating September 2004. We have read these two reports and agree with the TCEQ’s technical and economical reasoning (technical infeasibility) for revising the water heaters, small boilers, and process heaters provisions of Chapter 117. We are taking comments on revisions to sections 117.3203, 117.3205, 117.3210, and 117.3215 of the May 2007 SIP revisions. We have made these two reports available in the docket for public review. Therefore, we are proposing to approve sections 117.3203 (Exemptions), 117.3205 (Emission Specifications), 117.3210 (Certification Requirements), and 117.3215 (Notification and Labeling Requirements) of the state-wide water heater rule in this document based on technical infeasibility.

- For these reasons it is our determination that the May 2007 SIP submittal would not interfere with attainment and reasonable further progress, or any other applicable requirement of this Act. Thus Section 110(l) requirements of the Act have been complied with.

## Chapter 2 – Current Sections and New Sections:

Old Section versus New Section of Chapter 117

This Chapter of the TSD contains Tables depicting the old sections (prior to the State’s 2007 SIP adoption) of Chapter 117 versus the State revised sections of Chapter 117.

**Table A - Old sections of Chapter 117 and their corresponding new sections in Chapter 117 proposed by the State**

Old Section	New Section
Subchapter A: Definitions	
§117.10	§117.10
§117.10(37)	§117.10(38)
§117.10(38)	§117.10(37)
§117.10(47)	§117.10(48)
§117.10(48)	§117.10(47)
Subchapter B: Combustion at Major Sources	
Division 1: Utility Electric Generation in Ozone Nonattainment Areas	
§117.101	§117.1000
	§117.1100
	§117.1200
New addition	§117.1100(c)
§117.103	§117.1003

	§117.1103
	§117.1203
§117.105	§117.1005
	§117.1105
	§117.1205
§117.106	§117.1010
	§117.1110
	§117.1210
§117.106(a)	§117.1010(a)
§117.106(b)	§117.1110(a)
§117.106(c)	§117.1210(a)
§117.106(d) & (e)	§117.1010(b) & (c)
	§117.1110(b) & (c)
	§117.1210(b) & (c)
§117.107	§117.1015
	§117.1115
	§117.1215
§117.107(a) – (d)	§117.1015(a) – (d)
	§117.1115(a) – (d)
	§117.1215(a) – (d)
§117.107(e)	§117.1215(e)
§117.108	§117.1020
	§117.1120
	§117.1220
§117.109	§117.1020(l)
	§117.1120(l)
	§117.1220(l)
§117.110	§117.1020(m)
	§117.1120(m)
	§117.1220(m)
§117.111	§117.1035
	§117.1135
	§117.1235
§117.113	§117.1040
	§117.1140
	§117.1240
§117.113(a) – (b)	§117.1040(a) – (b)
§117.113(a) – (b)	§117.1140(a) – (b)
§117.113(a) – (b)	§117.1240(a) – (b)
§117.113(b)(1) & (2)	§117.8120
§117.113(c)	§117.1040(c)
	§117.1140(c)
	§117.1240(d)
§117.113(c)(1) & (2)	§117.8110(a)
§117.113(c)(3)	§117.1240(d)(2)
§117.113(d) – (l)	§117.1040(d) – (l)
	§117.1140(d) – (l)
	§117.1240(e) – (m)
§117.113(f)(2) - (4)	§117.8110(b)
§117.114	§117.1240
§117.114(a)(1) – (3)	§117.1240(a), (b), & (i)

§117.114(a)(4)	§117.1240(c)
§117.114(a)(4)(E)	§117.1245(e)(8)
§117.114(b)	§117.1240(n)
§117.114(c)	§117.1240(o)
§117.115	§117.1052
	§117.1152
	§117.1252
§117.115(a), (b), & (d)	§117.1052(a) – (c)
	§117.1152(a) – (c)
	§117.1252(a) – (c)
§117.115(c)	Deleted
§117.116	§117.1054
§117.116	§117.1154
§117.116	§117.1254
§117.117	§117.1056
	§117.1156
	§117.1256
§117.119	§117.1045
	§117.1145
	§117.1245
§117.121	§117.1025
	§117.1125
	§117.1225
§117.121(a)(4)	Deleted
Division 2: Utility Electric Generation in East and Central Texas	
§117.131	§117.3000
§117.133	§117.3003
§117.134	§117.3005
§117.135	§117.3010
§117.135(2)(B)	§117.3040(c)
§117.138	§117.3020
§117.139	§117.3020(l)
§117.141	§117.3035
§117.143	§117.3040
§117.143(a) & (b)	§117.3040(a) & (b)
§117.143(b)(1) – (2)	§117.8120
§117.143(c) - (k)	§117.3040(d) – (l)
§117.143(e)(2) – (4)	§117.8110(b)
§117.145	§117.3054
§117.147	§117.3056
§117.149	§117.3045
§117.151	§117.3025
§117.151(a)(4)	Deleted
Division 3: Industrial, Commercial, and Institutional Combustion Sources in Ozone Nonattainment Areas	
§117.201	§117.100
	§117.200
	§117.300
§117.201(1) – (3)	§117.100(1) – (3)
	§117.200(1) – (3)
	§117.300(1) – (3)

§117.201(4) – (12)	§117.300(4) – (12)
§117.203	§117.103
	§117.203
	§117.303
§117.203(a)	§117.103(a)
	§117.203(a)
	§117.303(a)
§117.203(a)(1)–(8), (10), & (13)	§117.103(a)(1) – (10)
§117.203(a)(1)–(8), & (10)	§117.203(a)(1) – (9)
§117.203(a)(1)–(9), (11), & (12)	§117.203(a)(1) – (11)
§117.203(b)	§117.303(a)(1), (2), (7), & (8)
§117.203(c)	Deleted
§117.205	§117.105
	§117.205
	§117.305
§117.205(a)-(d)	§117.105(a)-(d)
	§117.205(a)-(d)
	§117.305(a)-(d)
§117.205(d)(1)	§117.305(d)
§117.205(d)(2)	§117.105(d)
	§117.205(d)
§117.205(e)	§117.105(e)
§117.205(f) & (g)	§117.105(f) & (g)
	§117.205(e)& (f)
	§117.305 (e) & (f)
§117.205(h)	§117.103(b)
	§117.203(b)
	§117.303(b)
§117.205(h)(1) – (5)	§117.103(b)(1) – (5)
	§117.203(b)(1) – (5)
	§117.303(b)(1) – (5)
§117.205(h)(6)	§117.203(b)(6)
	§117.303(b)(6)
§117.205(h)(7) – (10)	§117.103(b)(6) – (9)
	§117.203(b)(7) – (10)
	§117.303(b)(7) – (10)
§117.205(i)	§117.105(h)
	§117.305(g)
§117.206	§117.110
	§117.210
	§117.310
§117.206(a)	§117.110(a)
§117.206(b)	§117.210(a)
§117.206(b)(3)	§117.410(a)
§117.206(c)	§117.310(a)
§117.206(d) – (f)	§117.110(b) – (d)
	§117.210(b) – (d)
	§117.310(b) – (d)
§117.206(g)	§117.103(c)
	§117.203(c)
§117.206(h) & (i)	§117.310(e) & (f)



§117.207	§117.115
	§117.215
	§117.315
§117.207(a) – (h)	§117.115(a) – (h)
	§117.215(a) – (h)
	§117.315(a) – (h)
§117.207(i)	§117.115(i)
	§117.215(i)
§117.207(j)	§117.315(j)
§117.208	§117.130
	§117.230
	§117.330
§117.208(d)(7)	§117.8140(b)
§117.209	§117.150
	§117.350
§117.210	§117.320
§117.211	§117.135
	§117.235
	§117.335
§117.211(e)(1) – (6)	§117.8000
§117.211(g)(1) – (8)	§117.8010
§117.213	§117.140
	§117.240
	§117.340
§117.213(a) – (c)	§117.140(a) – (c)
	§117.240(a) – (c)
	§117.340(a) – (c)
§117.213(a) – (c)	§117.340(a) – (c)
New addition	§117.340(c)(3)(E)
§117.213(d) – (m)	§117.140(d) – (n)
	§117.240(d) – (m)
	§117.340(e) – (n)
§117.213(d)(1) & (2)	§117.8120
§117.213(e)(1) - (3), (5), & (6)	§117.8100(a)
§117.213(e)(4)	§117.340(c)(2)
§117.213(f)(2) - (7)	§117.8100(b)
§117.213(g)(1) & (2)	§117.8140(a)
§117.214	§117.340
§117.214(a)(1)(A) – (C)	§117.340
§117.214(a)(1)(D)	§117.340(d)
§117.214(a)(1)(D)(i) – (iv)	§117.8130
§117.214(b)(1)	§117.340(o)(1)
§117.214(b)(2)	§117.340(h) & §117.8140(b)
§117.214(b)(3)	§117.340(o)(2)
§117.214(c)	§117.340(p)
§117.215	§117.152
	§117.252
	§117.352
§117.215(a) – (c)	§117.152(a) – (c)
	§117.252(a) – (c)
	§117.352(a) – (c)

§117.215(d)	Deleted
§117.215(e)	§117.152(d)
	§117.252(d)
	§117.352(d)
§117.216	§117.154
	§117.254
	§117.354
§117.217	§117.156
	§117.256
	§117.356
§117.219	§117.145
	§117.245
	§117.345
§117.221	§117.125
	§117.225
	§117.325
§117.221(a)(4)	Deleted
§117.223	§117.123
	§117.223
	§117.323
§117.223(a) – (k)	§117.123(a) – (g)
	§117.223(a) – (g)
	§117.323(a) – (g)
§117.223(h) – (k)	§117.123(h) – (k)
	§117.223(h) – (k)
§117.223(i) – (l)	§117.323(h) – (k)
Division 4: Cement Kilns (not acting on in this action)	
§117.260	§117.3101
§117.261	§117.3100
	§117.3103
§117.265	§117.3110
New addition	§117.3123
New addition	§117.3125
§117.273	§117.3140
New addition	§117.3142
§117.279	§117.3145
New addition	§117.3145(e)(4)
§117.283	§117.3120
Subchapter C: Acid Manufacturing	
Division 1: Adipic Acid Manufacturing	
§117.301	§117.4000
§117.305	§117.4005
§117.321	§117.4025
§117.311	§117.4035
§117.313	§117.4040
§117.319	§117.4045
§117.309	§117.4050
Division 2: Nitric Acid Manufacturing – Ozone Nonattainment Areas	
§117.401	§117.4100

§117.405	§117.4105
§117.421	§117.4125
§117.411	§117.4135
§117.413	§117.4140
§117.419	§117.4145
§117.409	§117.4150
Division 3: Nitric Acid Manufacturing – General	
§117.451	§117.4200
§117.455	§117.4205
§117.458	§117.4210
Subchapter D: Small Combustion Sources	
Division 1: Water Heaters, Small Boilers, and Process Heaters	
§117.460	117.3201
§117.461	117.3200
§117.473	117.3203 (not acting on in this action)
§117.465	117.3205 (not acting on in this action)
§117.467	117.3210 (not acting on in this action)
§117.469	117.3215 (not acting on in this action)
Division 2: Boilers, Process Heaters, and Stationary Engines and Gas Turbines at Minor Sources	
§117.471	§117.2000
§117.473	§117.2003
§117.475	§117.2010
§117.478	§117.2030
§117.479(a)-(f)	§117.2035(a)-(f)
§117.479(e)(3)(G)	§117.2035(e)(3)
§117.479(g)	§117.2045(a)
§117.479(h)	§117.2045(b)
§117.479(i)	§117.2035(g)
§117.479(j)	§117.2045(c)
§117.481	§117.2025
§117.481(a)(4)	Deleted
Subchapter E: Administrative Provisions	
§117.510(a)	§117.9100
§117.510(b)	§117.9110
§117.510(c)	§117.9120
§117.512	§117.9300
§117.520(a)	§117.9000
§117.520(b)	§117.9010
§117.520(b)(2)	§117.9030(a)
§117.520(c)	§117.9020
§117.524	§117.9320
§117.530	§117.9500
§117.534	§117.9200
§117.570	§117.9800
§117.571	§117.9810
Other new sections not originating from existing sections	

New addition	§117.400
New addition	§117.403
New addition	§117.410
New addition	§117.423
New addition	§117.425
New addition	§117.430
New addition	§117.435
New addition	§117.440
New addition	§117.445
New addition	§117.450
New addition	§117.454
New addition	§117.456
New addition	§117.1300
New addition	§117.1303
New addition	§117.1310
New addition	§117.1325
New addition	§117.1335
New addition	§117.1340
New addition	§117.1345
New addition	§117.1352
New addition	§117.1354
New addition	§117.1356
New addition	§117.2100
New addition	§117.2103
New addition	§117.2110
New addition	§117.2125
New addition	§117.2130
New addition	§117.2135
New addition	§117.2145
New addition	§117.3300
New addition	§117.3303
New addition	§117.3310
New addition	§117.3325
New addition	§117.3330
New addition	§117.3335
New addition	§117.3345
New addition	§117.9030
New addition	§117.9130
New addition	§117.9210
New addition	§117.9340

**Table B1– NOx requirements for attainment demonstration in DFW area under 8-hour standard**

Source	NOx Limit	Additional Information	Citation
Reciprocating Internal Combustion Engines	2.0 g/hp-hr	Natural gas, rich burn, capacity $\geq$ 300 hp, before January 1, 2000, also a 3.0 g/hp-hr limit of CO	117.410(a)(1)(B)(i)
Reciprocating Internal Combustion Engines	0.50 g/hp-hr	Natural gas, rich burn, capacity $\geq$ 300 hp, on or after January 1, 2000, also a 3.0 g/hp-hr limit of CO	117.410(a)(9)(B)(ii)
Reciprocating Internal Combustion Engines	0.60 g/hp-hr	Gas-fired, rich burn, landfill gas	117.410(b)(4)(A)(i)
Reciprocating Internal Combustion Engines	0.50 g/hp-hr	Gas-fired, rich burn, not using landfill gas	117.410(b)(4)(A)(ii)
Reciprocating Internal Combustion Engines	0.70 g/hp-hr	Gas-fired, lean burn, before June 1, 2007, not modified afterwards	117.410(b)(4)(B)(i)
Reciprocating Internal Combustion Engines	0.60 g/hp-hr	Gas-fired, lean burn, landfill gas, on or after June 1, 2007	117.410(b)(4)(B)(ii)(I)
Reciprocating Internal Combustion Engines	0.50 g/hp-hr	Gas-fired, lean burn, not using landfill gas, and on or after June 1, 2007	117.410(b)(4)(B)(ii)(I)
Reciprocating Internal Combustion Engines	0.50 g/hp-hr	Dual-fuel	117.410(b)(4)(B)(ii)(II)
Duct Burners	0.032 lb/MMBtu	Used in turbine exhausts, rated $\geq$ 10 MW	117.410(b)(6)
Duct Burners	0.15 lb/MMBtu	Used in turbine exhausts, 1.0 rated < 10 MW	117.410(b)(6)
Duct Burners	0.26 lb/MMBtu	Used in turbine exhausts, rated < 1.0 MW	117.410(b)(6)
Lime Kilns	3.7 lb/ton of CaO	Individual kiln basis	117.410(b)(7)(A)(i)

Lime Kilns	3.7 lb/ton of CaO	Site-wide basis	117.410(b)(7)(A)(ii)
Metallurgical Furnaces	0.087 lb/MMBtu	Heat Furnace, March 1 – October 31 any year	117.410(b)(8)(A)
Metallurgical Furnaces	0.10 lb/MMBtu	Reheat Furnace, March 1 – October 31 any year	117.410(b)(8)(B)
Metallurgical Furnaces	0.45 lb/MMBtu	Lead smelting blast cupola and reverberatory	117.410(b)(8)(C)
Container Glass Furnaces	4.0 lb/ton of glass pulled	Melting furnace, within 25% of permitted production capacity, or MAER of permit issued before June 1, 2007	117.410(b)(10)(A)(i), or 117.410(b)(10)(A)(ii)
Fiberglass Furnaces	4.0 lb/ton product pulled	Mineral wool, cold-top electric	117.410(b)(10)(B)
Fiberglass Furnaces	1.45 lb/ton product pulled	Mineral wool, regenerative	117.410(b)(10)(C)
Fiberglass Furnaces	3.1 lb/ton product pulled	Mineral wool, non-regenerative	117.410(b)(10)(D)

We are proposing approval these NO<sub>x</sub> emissions specifications under Part D of the Act because their resulting emissions reductions will assist Texas in demonstrating attainment of the 8-hour ozone standard in the DFW 8-hour ozone nonattainment area. Therefore, we are proposing approval of these requirements into the Texas SIP.

**What sections of the May 30, 2007 SIP revision are we not acting upon in this proposal?**

We are not evaluating the cement kiln related sections of the May 30, 2007 SIP revision, in this document. See Table B2 below. We will review and act upon the cement kiln related sections of the May 30, 2007 SIP revision in a separate future rulemaking action. In the meantime the cement kiln related provisions as approved by EPA at 59 FR 15681 and published on March 26, 2004, will

remain in effect at the Federal level as part of the Texas SIP.

Table B2 - Sections of Chapter 117 Not Being Evaluated in This Rulemaking

Section Number	Explanation
117.3100, 117.3101, 117.3103, 117.3110, 117.3120, 117.3123, 117.3125, 117.3140, 117.3142, and 117.3145	Cement kiln related, not evaluating in today's rulemaking action.

**Is the May 30, 2007 SIP revision an ozone attainment demonstration plan?**

No, the May 30, 2007 SIP revision is not an attainment demonstration plan for any ozone nonattainment area in the State. This submittal concerns revisions to the Texas SIP for point sources of NOx. Previously, Texas has relied upon the NOx SIP rules for demonstrating attainment of the 1-hour ozone standard in all of the 1-hour ozone nonattainment areas. None of the substance of those rules' requirements (the 1-hour ozone standard) is changed by our approval of the new formatted NOx rules, except that the DFW and East Texas NOx rules become more stringent. The May 30, 2007 SIP revision should assist in bringing the DFW area into attainment with the 8-hour ozone NAAQS, and help with the maintenance of the ozone NAAQS in the East and Central parts of the State.

**What are the NOx emission requirements for stationary diesel engines in DFW area, that we are approving?**

This rule revision requires reductions of NOx emissions from stationary diesel engines in the DFW area. The following table

contains a summary of the NOx emission specifications for stationary diesel engines in the DFW area. We have included the Chapter 117 citation for each source category with the Table below for convenience purposes.

**Table C - NOx requirements for stationary diesel engines in the DFW area**

Source	NOx Emission Specification	Citation
Diesel engines in service before March 1, 2009: not modified, reconstructed, or relocated on or after March 1, 2009	11.0 gram/hp-hr	117.410(b)(4)(D)
Rated less than 50 hp: modified, installed reconstructed, or relocated on or after March 1, 2009	5.0 gram/hp-hr	117.410(b)(4)(E)(i)
50 hp * rated < 100 hp: modified, installed, reconstructed, or relocated on or after March 1, 2009	3.3 gram/hp-hr	117.410(b)(4)(E)(ii)
100 hp * rated < 750 hp: installed, modified, reconstructed, or relocated on or after March 1, 2009	2.8 gram/hp-hr	117.410(b)(4)(E)(iii)
Rated * 750 hp: installed, modified, reconstructed, or relocated on or after March 1, 2009	4.5 gram/hp-hr	117.310(b)(4)(E)(iv)

We are approving the above-listed NOx emission requirements for diesel engines because they are in agreement with those found in Code of Federal Regulations (CFR), Title 40, section 89.112, and EPA’s Document Number 420-R-98-016 dated August 1998, entitled “Final Regulatory Impact Analysis: Control of Emissions from Nonroad Diesel Engines.” We are therefore proposing approval of these NOx emission requirements under Part D of the Act because their resulting emissions reductions will assist Texas in demonstrating attainment of the 8-hour ozone standard within the DFW 8-hour ozone nonattainment area. Therefore, we are proposing approval of these requirements into the June 15, 2007 Texas SIP.

**What are the emissions specifications for minor sources of**



**NOx within the DFW area we are proposing to approve?**

These minor sources include stationary reciprocating internal combustion engines that are not a major source of NOx. See 117.2100 and 117.2103 for more information.

**Table D – NOx requirements for minor sources in DFW area under 8-hour standard**

Source	NOx Emission Specification	Additional Information	Citation
Reciprocating Internal Combustion Engines	0.60 g/hp-hr	Stationary, rich-burn, using landfill gas-fired	117.2110(a)(1)(A)(i)
Reciprocating Internal Combustion Engines	0.50 g/hp-hr	Stationary, rich-burn, not landfill gas-fired	117.2110(a)(1)(A)(ii)
Reciprocating Internal Combustion Engines	0.70 g/hp-hr	Stationary, lean-burn, in service before June 1, 2007	117.2010(a)(1)(B)(i)
Reciprocating Internal Combustion Engines	0.60 g/hp-hr	Stationary, lean-burn, in service on or after June 1, 2007, using landfill gas	117.2010(a)(1)(B)(i)(I)
Reciprocating Internal Combustion Engines	0.50 g/hp-hr	Stationary, lean-burn, in service on or after June 1, 2007, not using landfill gas	117.2010(a)(1)(B)(i)(II)
Reciprocating Internal Combustion Engines	5.83 g/hp-hr	Stationary, dual-fuel	117.2010(a)(2)

As an alternative, a minor source from the above-listed Table located within the DFW and having an annual capacity factor of 0.0383 or less may choose an emission specification of 0.060 lb/MMBtu, instead. See 117.2110(a)(4).

We are of the opinion that NOx emissions requirements for the above-listed minor sources of NOx and their resulting emissions reductions will assist in demonstrating attainment of the 8-hour ozone standard within the DFW 8-hour ozone nonattainment area. Therefore, we are proposing approval of these requirements into the June 15, 2007 Texas SIP.

**What are the emissions requirements for water heaters that we are proposing to approve?**

The water heaters, small boilers, and process heaters that use natural gas and have a rated capacity of 2 million Btu per hour or less are subject to these requirements. See 117.3200 and 117.3203 for more information. The following Table contains type and size categories for these affected units.

**Table E1 - Water heater size classifications**

Maximum Rated Capacity (Btu/Hr)	Type
Capacity < 75,000	0
75,000 < Capacity < 400,000	1
Capacity > 400,000	2

**Table E2 - NOx requirements for water heaters in Texas**

Type	Date	NOx Emission Specification	Citation
0	Manufactured on or after July 1, 2002, but no later than December 31, 2004	40 ng/joule of heat output	117.3205(a)(1)(A)
0	Manufactured on or after July 1, 2002, but no later than December 31, 2004	55 ppmv at 3% oxygen dry basis	117.3205(a)(1)(B)
0	Manufactured on or after January 1, 2005	10 ng/joule of heat output	117.3205(a)(2)(A)

0	Manufactured on or after January 1, 2005	15 ppmv at 3% oxygen dry basis	117.3205(a)(2)(B)
1	Manufactured on or after July 1, 2002	40 ng/joule of heat output	117.3205(a)(3)(A)
1	Manufactured on or after July 1, 2002	55 ppmv at 3% oxygen dry basis	117.3205(a)(3)(B)
2	Manufactured on or after July 1, 2002	30 ppmv at 3% oxygen dry basis	117.3205(a)(4)(A)
2	Manufactured on or after July 1, 2002	0.037 lb/MMBtu/hr of heat input	117.3205(a)(4)(B)
0	Manufactured on or after July 1, 2002	40 ng/joule of heat output	117.3205(b)(1)(A)
0	Manufactured on or after July 1, 2002	55 ppmv at 3% oxygen dry basis	117.3205(b)(1)(B)
1	Manufactured on or after July 1, 2002	40 ng/joule of heat output	117.3205(b)(2)(A)
1	Manufactured on or after July 1, 2002	55 ppmv at 3% oxygen dry basis	117.3205(b)(2)(B)
2	Manufactured on or after July 1, 2002	30 ppmv at 3% oxygen dry basis	117.3205(b)(3)(A)
2	Manufactured on or after July 1, 2002	0.037 lb/MMBtu/hr of heat input	117.3205(b)(3)(B)

One should use the following equation to calculate emissions in nanograms of NO<sub>x</sub> per joule of heat output:

$$N = (4.566 \times 10^4 \times P \times U) / (H \times C \times E)$$

Where:

N = NO<sub>x</sub> Emission Rate in nanograms of NO<sub>x</sub> emitted per joule of heat output

P = Concentration of NO<sub>x</sub> in the flue gas in parts per million (volume)

U = Dry volume percent of CO<sub>2</sub> in flue gas necessary for stoichiometric combustion.

H = Gross heating value of the gas, BTU/Cu Ft (at 60 °F and 30"Hg)

C = Dry volume percent of CO<sub>2</sub> in flue gas

E = Recovery efficiency, percentage, as defined in Section 6.1.3 of the 10 CFR Part 430, Subpart B, Appendix E.

The Bay Area Air Quality Management District, Rule 6 – Nitrogen Oxides Emissions from Natural Gas-Fired Water Heaters has an emissions limitations of 40 nanograms of nitrogen oxides (calculated as NO<sub>2</sub>) per joule of heat output. See <http://www.arb.ca.gov/drdb/ba/curhtml/r9-6.htm>. (UNIVERSAL RESOURCE LOCATOR dating July 24, 2007)

The San Diego County Air Pollution Control District, Rule 69.5- Natural Gas-Fired Water Heaters has NO<sub>x</sub> emissions requirements of 40 nanograms for natural gas-fired water heater (calculated as NO<sub>2</sub>) per joule (93 lbs of oxides of nitrogen per billion Btu) of heat output, or 50 nanograms for natural gas-fired mobile home water heater that emits more than 50 nanograms of oxides of nitrogen (calculated as NO<sub>2</sub>) per joule (116 lbs of oxides of nitrogen per billion Btu) of heat output. See <http://www.arb.ca.gov/drdb/sd/curhtml/r69-5.htm> (UNIVERSAL RESOURCE LOCATOR dating July 24, 2007)

The San Joaquin Valley Unified Air Pollution Control District, Rule 4902-Residential Water Heaters has NO<sub>x</sub> emissions requirements of 40 nanograms of nitrogen oxides (calculated as NO<sub>2</sub>) per Joule of heat output. See <http://www.arb.ca.gov/drdb/sju/curhtml/r4902.htm>. (UNIVERSAL RESOURCE LOCATOR dating July 24, 2007). The EPA has approved the SJVUAPD rule 4902 in 69 FR 7370 published February 17, 2004.

- We are proposing to approve sections 117.3200 (Applicability), and 117.3201 (Definitions) of the of the state-wide water heater rule, in this document, because these sections are the same as sections 117.461, and 117.460 that we approved at 71 FR 64148 published on October 26, 2000.
- The water heater provisions of 30 TAC are similar to those rules listed above, and are structured in the same manner. Thus should be given approval.
- In support of their revision to the water heaters, small boilers, and process heaters provisions of Chapter 117, TCEQ provided a report titled “Technical and Economic Feasibility Study” by TCEQ dating December 2005. This report concerns information on the technical analysis justifying the repeal of this emission standard (117.3205). This report was based on the study required by the Texas HB 965 and subsequent comments received by TCEQ indicating that water heater manufacturers are currently unable to produce residential natural gas-fired water heaters that can meet the 10 ng/J NO<sub>x</sub> emission specification. In addition, American Gas Association (AGA) provided a report to TCEQ titled “Evaluation of NO<sub>x</sub> Emissions from Residential Water Heaters in Texas” dating September 2004. We have read these two reports and agree with the TCEQ’s technical and economical reasoning (technical infeasibility) for revising the water heaters, small boilers, and process heaters provisions of Chapter 117. We are taking comments on revisions to sections 117.3203, 117.3205, 117.3210, and 117.3215 of the May 2007 SIP revisions. We have made these two reports available in the docket for public review. Therefore, we are proposing to approve sections 117.3203

(Exemptions), 117.3205 (Emission Specifications), 117.3210 (Certification Requirements), and 117.3215 (Notification and Labeling Requirements) of the state-wide water heater rule in this document based on technical infeasibility.

**What NOx emissions requirements for stationary reciprocating internal combustion engines in East and Central Texas that we are proposing to approve?**

The gas-fired stationary reciprocating internal combustion engines located in Anderson, Brazos, Burleson, Camp, Cass, Cherokee, Franklin, Freestone, Gregg, Grimes, Harrison, Henderson, Hill, Hopkins, Hunt, Lee, Leon, Limestone, Madison, Marion, Morris, Nacogdoches, Navarro, Panola, Rains, Robertson, Rusk, Shelby, Smith, Upshur, Van Zandt, or Wood Texas Counties are subject to these requirements. See 117.3300 and 117.3303 for more information. The following Table contains NOx emissions requirements and related information for these affected units.

**Table F – NOx requirements for RICE in East and Central Texas**

Source	NOx Emission Specification	Additional Information	Citation
Reciprocating Internal Combustion Engines	1.00 g/hp-hr	Rich burn, gas-fired, capacity < 500 hp	117.3310(a)(1)
Reciprocating Internal Combustion Engines	0.60 g/hp-hr	Rich burn, landfill gas-fired, capacity ≥ 500 hp	117.3010(a)(2)(A)

Reciprocating Internal Combustion Engines	0.50 g/hp-hr	Rich burn, not landfill gas- fired, capacity $\geq$ 500 hp	117.3010(a)(2)(B)
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We are of the opinion that NOx emissions requirements for the stationary reciprocating internal combustion engines in East and Central Texas and their resulting emissions reductions will assist in demonstrating attainment of the 8-hour ozone standard within the HGB, DFW, and BPA 8-hour ozone nonattainment areas. Furthermore, these reductions will contribute to the continued maintenance of the standard in the eastern half of the State of Texas, and they enhance the Texas SIP. Therefore, we are now proposing approval of these requirements into the June 15, 2007 Texas SIP under part D; and sections 110, and 116 of the Act, respectively.

**What are compliance schedules for NOx emissions sources we are proposing to approve?**

The following Table contains summary of the NOx-related compliance schedules for major sources, utility generating units, and minor sources affected by the May 30, 2007 SIP revision. See 117.9000 through 117.9500 for more information.

**Table G – Compliance schedules for NOx sources in Chapter 117**

Source	Compliance Date	Additional Information	Citation
Major, DFW	Install all NOx abatement equipment by no later than June 15, 2007	Increment of Progress (IOP) requirement	117.9030(a)(1)
Major, DFW	Submit initial control plan per 117.450 by no later than June 1, 2008.	8-hour attainment demonstration requirement	117.9030(b)

	<p>Comply with emissions requirements by no later than March 1, 2009 when source subject to 117.410(b)(1), (2), (4), (5), (6), (7)(A), (10), and (14).</p> <p>Diesel and dual-fuel engines comply with testing and hours of operation for testing and maintenance by no later than March 1, 2009.</p> <p>Gas turbines or IC engines claiming run time exemption comply with the run time requirements by no later than March 1, 2009.</p> <p>Comply with emissions requirement by no later than March 1, 2009 when source subject to 117.410(b)(3), (7)(B), (9), (11), (12), and (13).</p>		
DFW	<p>Submit initial control plan per 117.1350 by no later than June 1, 2008.</p> <p>Comply with all other requirements by no later than March 1, 2009.</p>	Utility electric generation sources	117.9130(a)(1) and (2)
DFW	<p>Rich-burn, gas-fired stationary RICE comply with NOx requirements by no later than March 1, 2009.</p> <p>Lean-burn, gas-fired stationary RICE comply with NOx requirements by no later than March 1, 2010.</p> <p>Diesel-fired and dual-fuel stationary RICE comply with NOx requirements by no later than March 1, 2009.</p>	Minor sources	117.9210
East and Central Texas	Updated final control plan per 117.3054 be submitted by no later than January 31, 2007.	Utility electric generation sources	117.9300(2)(B)
East Texas	Stationary RICE comply with NOx requirements by no later than March 1, 2010.	East Texas combustion sources	117.9340(a)

- These compliance dates provide for enforceability and practicability of Chapter 117, and enhance the June 15, 2007 Texas SIP; therefore, we are proposing their approval into the June 15, 2007 Texas SIP.

**Who can use emission reduction credit (RC) for NOx compliance under Chapter 117?**

The following Table will assist in understanding the compliance flexibility provisions of chapter 117 through use of emission credit as it applies to various sources of NOx. See 117.9800 for more details. If a source is not subject to the 30 TAC Chapter 101, Mass Emissions Cap and Trade Program, the source may use RC, in part or whole, to meet the applicable NOx control requirements.

**Table I – Reduction credit and compliance flexibility in Chapter 117**

If You Are Subject to Section	Topic	Can Use RC for Compliance?	Citation
117.105, 117.205, 117.305, 117.1005, 117.1105, or 117.1205	RACT	Yes	117.9800(a)(1)
117.110, 117.210, 117.1010, or 117.1110	Emission Specifications for Attainment Demonstration	Yes	117.9800(a)(2)
117.1015, 117.1115, or 117.1215,	Alternative System-Wide	Yes	117.9800(a)(3)
117.115, 117.215, or 117.315	Alternative Plant-Wide	Yes	117.9800(a)(4)
117.123, 117.223, 117.323, 117.423, or 117.3120	Source Cap	Yes	117.9800(a)(5)
117.2010, 117.3010, or 117.3110	Emission Specification	Yes	117.9800(a)(6)



117.410, 117.1310, 117.2110, or 117.3310	Emission Specification for 8-Hour Attainment Demonstration	Yes	117.9800(a)(7)
117.3123	DFW 8-Hour Ozone Attainment Demonstration Control Requirement	Yes	117.9800(a)(8)

**Who can use emission RC through Texas Emissions Reduction Plan (TERP) for NOx compliance under Chapter 117?**

The following Table will assist in understanding the compliance flexibility provisions of chapter 117 through use of emission credit as it applies to various sources of NOx. See 117.9810 for more details. If a source within the DFW or HGB area that is not subject to the 30 TAC Chapter 101, Mass Emissions Cap and Trade Program, the source may use RC generated from TERP, in part or whole, to meet the applicable NOx control requirements.

**Table J – Reduction credit and TERP in Chapter 117**

If You Are Subject to Section	Topic	Can Use RC for Compliance?	Citation
117.205, 117.305, 117.1105, or 117.1205	RACT	Yes	117.9810(a)(1)
117.210, or 117.1110	Emission Specifications for Attainment Demonstration	Yes	117.9810(a)(2)
117.215, or 117.315	Alternative Plant-Wide	Yes	117.9810(a)(3)
117.1120	System Cap	Yes	117.9810(a)(4)
117.223, or 117.323	Source Cap	Yes	117.9810(a)(5)

117.410, or 117.1310	Emission Specification for 8-Hour Attainment Demonstration	Yes	117.9810(a)(6)
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## Chapter 3– Index Listing of Chapter 117:

This Part of TSD contains the completed index listing of 30 TAC Chapter 117 Control of Air Pollution from Nitrogen Compounds as adopted by TCEQ in June 2007.

**Table K – Index listing of Chapter 117 sections**

### CHAPTER 117 CONTROL OF AIR POLLUTION FROM NITROGEN COMPOUNDS

#### SUBCHAPTER A: DEFINITIONS

§117.10. Definitions.
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#### SUBCHAPTER B: COMBUSTION CONTROL AT MAJOR INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL SOURCES IN OZONE NONATTAINMENT AREAS

##### DIVISION 1: BEAUMONT-PORT ARTHUR OZONE NONATTAINMENT AREA MAJOR SOURCES

§117.100. Applicability.
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§117.103. Exemptions.
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§117.105. Emission Specifications for Reasonably Available Control Technology (RACT).
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§117.110. Emission Specifications for Attainment Demonstration.
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§117.115. Alternative Plant-Wide Emission Specifications.
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§117.123. Source Cap.
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§117.125. Alternative Case Specific Specifications.
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§117.130. Operating Requirements.
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§117.135. Initial Demonstration of Compliance.
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§117.140. Continuous Demonstration of Compliance.
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§117.145. Notification, Recordkeeping, and Reporting Requirements.
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§117.150. Initial Control Plan Procedures.
--

§117.152. Final Control Plan Procedures for Reasonably Available Control Technology.
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§117.154. Final Control Plan Procedures for Attainment Demonstration Emission Specifications.
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§117.156. Revision of Final Control Plan.
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##### DIVISION 2: DALLAS-FORT WORTH OZONE NONATTAINMENT AREA MAJOR SOURCES

§117.200. Applicability.
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§117.203. Exemptions.
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§117.205. Emission Specifications for Reasonably Available Control Technology (RACT).
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§117.210. Emission Specifications for Attainment Demonstration.
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§117.215. Alternative Plant-Wide Emission Specifications.
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§117.223. Source Cap.
§117.225. Alternative Case Specific Specifications.
§117.230. Operating Requirements.
§117.235. Initial Demonstration of Compliance.
§117.240. Continuous Demonstration of Compliance.
§117.245. Notification, Recordkeeping, and Reporting Requirements.
§117.252. Final Control Plan Procedures for Reasonably Available Control Technology.
§117.254. Final Control Plan Procedures for Attainment Demonstration Emission Specifications.
§117.256. Revision of Final Control Plan.

DIVISION 3: HOUSTON-GALVESTON-BRAZORIA OZONE NONATTAINMENT AREA  
MAJOR SOURCES

§117.300. Applicability.
§117.303. Exemptions.
§117.305. Emission Specifications for Reasonably Available Control Technology (RACT).
§117.310. Emission Specifications for Attainment Demonstration.
§117.315. Alternative Plant-Wide Emission Specifications.
§117.320. System Cap.
§117.323. Source Cap.
§117.325. Alternative Case Specific Specifications.
§117.330. Operating Requirements.
§117.335. Initial Demonstration of Compliance.
§117.340. Continuous Demonstration of Compliance.
§117.345. Notification, Recordkeeping, and Reporting Requirements.
§117.350. Initial Control Plan Procedures.
§117.352. Final Control Plan Procedures for Reasonably Available Control Technology.
§117.354. Final Control Plan Procedures for Attainment Demonstration Emission Specifications.
§117.356. Revision of Final Control Plan.

DIVISION 4: DALLAS FORT-WORTH EIGHT-HOUR OZONE NONATTAINMENT AREA  
MAJOR SOURCES

§117.400. Applicability.
§117.403. Exemptions.
§117.410. Emission Specifications for Eight-Hour Attainment Demonstration.
§117.423. Source Cap.
§117.425. Alternative Case Specific Specifications.
§117.430. Operating Requirements.
§117.435. Initial Demonstration of Compliance.
§117.440. Continuous Demonstration of Compliance.
§117.445. Notification, Recordkeeping, and Reporting Requirements.
§117.450. Initial Control Plan Procedures.
§117.454. Final Control Plan Procedures for Attainment Demonstration Emission Specifications.

§117.456. Revision of Final Control Plan.
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SUBCHAPTER C: COMBUSTION CONTROL AT MAJOR UTILITY ELECTRIC GENERATION SOURCES IN OZONE NONATTAINMENT AREAS  
DIVISION 1: BEAUMONT-PORT ARTHUR OZONE NONATTAINMENT AREA UTILITY ELECTRIC GENERATION SOURCES

§117.1000. Applicability.
§117.1003. Exemptions.
§117.1005. Emission Specifications for Reasonably Available Control Technology (RACT).
§117.1010. Emission Specifications for Attainment Demonstration.
§117.1015. Alternative System-Wide Emission Specifications.
§117.1020. System Cap.
§117.1025. Alternative Case Specific Specifications.
§117.1035. Initial Demonstration of Compliance.
§117.1040. Continuous Demonstration of Compliance.
§117.1045. Notification, Recordkeeping, and Reporting Requirements.
§117.1052. Final Control Plan Procedures for Reasonably Available Control Technology.
§117.1054. Final Control Plan Procedures for Attainment Demonstration Emission Specifications.
§117.1056. Revision of Final Control Plan.

DIVISION 2: DALLAS-FORT WORTH OZONE NONATTAINMENT AREA UTILITY ELECTRIC GENERATION SOURCES

§117.1100. Applicability.
§117.1103. Exemptions.
§117.1105. Emission Specifications for Reasonably Available Control Technology (RACT).
§117.1110. Emission Specifications for Attainment Demonstration.
§117.1115. Alternative System-Wide Emission Specifications.
§117.1120. System Cap.
§117.1125. Alternative Case Specific Specifications.
§117.1135. Initial Demonstration of Compliance.
§117.1140. Continuous Demonstration of Compliance.
§117.1145. Notification, Recordkeeping, and Reporting Requirements.
§117.1152. Final Control Plan Procedures for Reasonably Available Control Technology.
§117.1154. Final Control Plan Procedures for Attainment Demonstration Emission Specifications.
§117.1156. Revision of Final Control Plan.

DIVISION 3: HOUSTON-GALVESTON-BRAZORIA OZONE NONATTAINMENT AREA UTILITY ELECTRIC GENERATION SOURCES

§117.1200. Applicability.
§117.1203. Exemptions.
§117.1205. Emission Specifications for Reasonably Available Control Technology (RACT).

§117.1210. Emission Specifications for Attainment Demonstration.
§117.1215. Alternative System-Wide Emission Specifications.
§117.1220. System Cap.
§117.1225. Alternative Case Specific Specifications.
§117.1235. Initial Demonstration of Compliance.
§117.1240. Continuous Demonstration of Compliance.
§117.1245. Notification, Recordkeeping, and Reporting Requirements.
§117.1252. Final Control Plan Procedures for Reasonably Available Control Technology.
§117.1254. Final Control Plan Procedures for Attainment Demonstration Emission Specifications.
§117.1256. Revision of Final Control Plan.

DIVISION 4: DALLAS-FORT WORTH EIGHT-HOUR OZONE NONATTAINMENT AREA  
UTILITY ELECTRIC GENERATION SOURCES

§117.1300. Applicability.
§117.1303. Exemptions.
§117.1310. Emission Specifications for Eight-Hour Attainment Demonstration.
§117.1325. Alternative Case Specific Specifications.
§117.1335. Initial Demonstration of Compliance.
§117.1340. Continuous Demonstration of Compliance.
§117.1345. Notification, Recordkeeping, and Reporting Requirements.
§117.1350. Initial Control Plan Procedures.
§117.1354. Final Control Plan Procedures for Attainment Demonstration Emission Specifications.
§117.1356. Revision of Final Control Plan.

SUBCHAPTER D: COMBUSTION CONTROL AT MINOR SOURCES IN OZONE  
NONATTAINMENT AREAS

DIVISION 1: HOUSTON-GALVESTON-BRAZORIA OZONE NONATTAINMENT  
AREA MINOR SOURCES

§117.2000. Applicability.
§117.2003. Exemptions.
§117.2010. Emission Specifications.
§117.2025. Alternative Case Specific Specifications.
§117.2030. Operating Requirements.
§117.2035. Monitoring and Testing Requirements.
§117.2045. Recordkeeping and Reporting Requirements.

DIVISION 2: DALLAS-FORT WORTH EIGHT-HOUR OZONE NONATTAINMENT  
AREA MINOR SOURCES

§117.2100. Applicability.
§117.2103. Exemptions.
§117.2110. Emission Specifications for Eight-Hour Attainment Demonstration.

§117.2125. Alternative Case Specific Specifications.
§117.2130. Operating Requirements.
§117.2135. Monitoring, Notification, and Testing Requirements.
§117.2145. Recordkeeping and Reporting Requirements.

SUBCHAPTER E: MULTI-REGION COMBUSTION CONTROL  
 DIVISION 1: UTILITY ELECTRIC GENERATION IN EAST AND CENTRAL  
 TEXAS

§117.3000. Applicability.
§117.3003. Exemptions.
§117.3005. Gas-Fired Steam Generation.
§117.3010. Emission Specifications.
§117.3020. System Cap.
§117.3025. Alternative Case Specific Specifications.
§117.3035. Initial Demonstration of Compliance.
§117.3040. Continuous Demonstration of Compliance.
§117.3045. Notification, Recordkeeping, and Reporting Requirements.
§117.3054. Final Control Plan Procedures.
§117.3056. Revision of Final Control Plan.

DIVISION 2: CEMENT KILNS

§117.3100. Applicability.
§117.3101. Cement Kiln Definitions.
§117.3103. Exemptions.
§117.3110. Emission Specifications.
§117.3120. Source Cap.
§117.3123. Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration Control Requirements.
§117.3125. Alternative Case Specific Specifications.
§117.3140. Continuous Demonstration of Compliance.
§117.3142. Emission Testing and Monitoring for Eight-Hour Attainment Demonstration.
§117.3145. Notification, Recordkeeping, and Reporting Requirements.

DIVISION 3: WATER HEATERS, SMALL BOILERS, AND PROCESS HEATERS

§117.3200. Applicability.
§117.3201. Definitions.
§117.3203. Exemptions.
§117.3205. Emission Specifications.
§117.3210. Certification Requirements.
§117.3215. Notification and Labeling Requirements.

DIVISION 4: EAST TEXAS COMBUSTION

§117.3300. Applicability.
§117.3303. Exemptions.
§117.3310. Emission Specifications for Eight-Hour Attainment Demonstration.
§117.3325. Alternative Case Specific Specifications.
§117.3330. Operating Requirements.
§117.3335. Monitoring, Notification, and Testing Requirements.
§117.3345. Recordkeeping and Reporting Requirements

SUBCHAPTER F: ACID MANUFACTURING  
DIVISION 1: ADIPIC ACID MANUFACTURING

§117.4000. Applicability.
§117.4005. Emission Specifications.
§117.4025. Alternative Case Specific Specifications.
§117.4035. Initial Demonstration of Compliance.
§117.4040. Continuous Demonstration of Compliance.
§117.4045. Notification, Recordkeeping, and Reporting Requirements.
§117.4050. Control Plan Procedures.

DIVISION 2: NITRIC ACID MANUFACTURING – OZONE NONATTAINMENT  
AREAS

§117.4100. Applicability.
§117.4105. Emission Specifications.
§117.4125. Alternative Case Specific Specifications.
§117.4135. Initial Demonstration of Compliance.
§117.4140. Continuous Demonstration of Compliance.
§117.4145. Notification, Recordkeeping, and Reporting Requirements.
§117.4150. Control Plan Procedures.

DIVISION 3: NITRIC ACID MANUFACTURING – GENERAL

§117.4200. Applicability.
§117.4205. Emission Specifications.
§117.4210. Applicability of Federal New Source Performance Standards.

SUBCHAPTER G: GENERAL MONITORING AND TESTING REQUIREMENTS  
DIVISION 1: COMPLIANCE STACK TESTING AND REPORT REQUIREMENTS

§117.8000. Stack Testing Requirements.
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§117.8010. Compliance Stack Test Reports.

DIVISION 2: EMISSION MONITORING

§117.8100. Emission Monitoring System Requirements for Industrial, Commercial, and Institutional Sources.

§117.8110. Emission Monitoring System Requirements for Utility Electric Generation Sources.

§117.8120. Carbon Monoxide (CO) Monitoring.

§117.8130. Ammonia Monitoring.

§117.8140. Emission Monitoring for Engines.

SUBCHAPTER H: ADMINISTRATIVE PROVISIONS

DIVISION 1: COMPLIANCE SCHEDULES

§117.9000. Compliance Schedule for Beaumont-Port Arthur Ozone Nonattainment Area Major Sources.

§117.9010. Compliance Schedule for Dallas-Fort Worth Ozone Nonattainment Area Major Sources.

§117.9020. Compliance Schedule for Houston-Galveston-Brazoria Ozone Nonattainment Area Major Sources.

§117.9030. Compliance Schedule for Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Major Sources.

§117.9100. Compliance Schedule for Beaumont-Port Arthur Ozone Nonattainment Area Utility Electric Generation Sources.

§117.9110. Compliance Schedule for Dallas-Fort Worth Ozone Nonattainment Area Utility Electric Generation Sources.

§117.9120. Compliance Schedule for Houston-Galveston-Brazoria Ozone Nonattainment Area Utility Electric Generation Sources.

§117.9130. Compliance Schedule for Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Utility Electric Generation Sources.

§117.9200. Compliance Schedule for Houston-Galveston-Brazoria Ozone Nonattainment Area Minor Sources.

§117.9210. Compliance Schedule for Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Minor Sources.

§117.9300. Compliance Schedule for Utility Electric Generation in East and Central Texas.

§117.9320. Compliance Schedule for Cement Kilns.

§117.9340. Compliance Schedule for East Texas Combustion.

§117.9500. Compliance Schedule for Nitric Acid and Adipic Acid Manufacturing Sources.

DIVISION 2: COMPLIANCE FLEXIBILITY

§117.9800. Use of Emission Credits for Compliance.

§117.9810. Use of Emission Reductions Generated from the Texas Emissions Reduction Plan (TERP).

## Chapter 4 - Sample EPA Comments and TCEQ Responses:

This Part of TSD represents some key EPA comments on Chapter 117 and TCEQ response to those comments. Also see the section labeled “Evaluation” in Volume 4 of 5 of the 2007 Chapter 117 Texas SIP submittal, Rule Project No. 2006-034-117-EN.

Please certify that to the best of your knowledge the emissions specifications and associated control technologies proposed in the rule project number 2006-034-117-EN represent RACT or above for ozone pollution control purposes

The commission appreciates the comment. In the Phase II Implementation Rule published in the Federal Register on November 29, 2005, EPA noted in the preamble on page 71655 that current NOx and VOC RACT guidance could continue to be used by states in making RACT determinations for the eight-hour ozone standard. Additionally, EPA stated that for areas where major sources or source categories were previously reviewed states should review, and if appropriate, accept the initial RACT analysis as meeting RACT for the eight-hour standard. Absent data indicating that the previous RACT determination was no longer appropriate, states would not need to submit a new RACT determination for those sources. In such cases, EPA indicated states should submit a certification as part of its SIP revision, with appropriate information, that these sources are already subject to SIP-approved requirements that still meet the RACT obligation. The commission has completed a new analysis for RACT as part of the Dallas-Fort Worth eight-hour ozone attainment demonstration SIP that documents that the emission specifications and associated control technologies proposed in this rulemaking represent RACT or above, in conjunction with information presented elsewhere in this preamble. The source categories in the Dallas-Fort Worth eight-hour ozone nonattainment area have been reviewed and evaluated to determine appropriate emission specifications, control requirements, and associated control technologies for those source categories. The commission determined that the controls adopted with this rulemaking are available, reasonable, and necessary to help the Dallas-Fort Worth eight-hour ozone nonattainment area make progress toward attaining the eight-hour ozone NAAQS.

Also see Tables in Chapter B of the TSD.

Please clearly identify if Texas Commission on Environmental Quality (TCEQ) intends to keep any particular portions of the Chapter 117 submittal from being included in the EPA-approved Texas SIP. Unless clearly identified in your final submittal package, EPA will treat the submittal as if TCEQ desires to have the entire Chapter 117 be considered for inclusion in the Texas SIP. We are raising this issue at this time because, in the past, in rule log number 2002-038-117-AI submittal package, certain parts of Chapter 117 were clearly identified and labeled as “Not Part of SIP Submittal”. For your reference we have enclosed a copy of one those pages from the rule log number 2002-038-117-AI submittal package with this letter.

As discussed elsewhere in this preamble, the following sections are excluded from the Texas SIP: §§117.110(c), 117.125, 117.210(c), 117.225, 117.310(c), 117.325, 117.410(d), 117.425, 117.1010(b), 117.1025, 117.1110(b), 117.1125, 117.1210(b), 117.1225, 117.1310(b), 117.1325, 117.2010(i), 117.2025, 117.2110(h), 117.2125, 117.3010(e), 117.3025, 117.3123(f), 117.3125, 117.3310(e), and 117.3325.

The term “RACT” meaning Reasonably Available Control Technology has been used or referred to numerous times (more than 243 times) throughout Chapter 117 rule; however, our examination of the record reveals that this term is not defined in 117.10 (Definitions) of the rule. For consistency and clarification purposes we strongly recommend TCEQ to define this term, and adopt EPA’s long standing definition of RACT from 44 FR 53761, September 17, 1979 “*the lowest emission limitation that a particular source can meet by applying a control technique that is reasonably available considering technological and economic feasibility.*” in section 117.10.

While the commission agrees with EPA’s definition of RACT, it disagrees with EPA’s suggested change. The term RACT is only used in Chapter 117 as a descriptor to distinguish those standards and requirements the commission has adopted for RACT purposes from those adopted for other purposes. The commission decides what is considered to be RACT for a particular source category during the evaluation phase of rulemaking. Including a definition of RACT in §117.10 would neither clarify the rule nor improve enforcement of the RACT requirements of any particular rule requirement. Therefore, the commission declines to make the suggested change.

Please confirm that the text appearing in the 5<sup>th</sup> row in the OPT-IN UNITS Table of Figure 117.215(f), correctly reads: stationary gas turbines with a megawatt (MW) rating:  $1.0 \text{ MW} \leq \text{MW rating} < 10.0 \text{ MW}$ .

Please confirm that the text appearing in the 5<sup>th</sup> row in the OPT-IN UNITS Table of Figure 117.315(f), correctly reads: stationary gas turbines with a megawatt (MW) rating:  $1.0 \text{ MW} \leq \text{MW rating} < 10.0 \text{ MW}$ .

The information contained in the 5th row in the OPT-IN UNITS Table of Figures §§117.115(f), 117.215(f), and 117.315(f), as published in the December 29, 2006, issue of the Texas Register (31 TexReg 10903, 10909, and 10914), as well as in this rule adoption, is correct.

Please state whether the term “MRC” in Figure 117.115(g)(1) refers to maximum rated capacity in MMBtu based on the “input” or the “output” of the affected unit. We believe such a distinction will prevent confusion for applicability determination situations.

Maximum rated capacity in Figure §117.115(g)(1) refers to million British thermal units based on heat input. Emission specifications for boilers and process heaters under §117.110 are on a lb/MMBtu heat input basis; therefore, the maximum rated capacity under §117.115(g)(1) would be on the same basis.

We believe that variable “i” in Figure 117.123(b)(1), the definition of Ri for (A)(i) “for emission units subject to the federal New Source ..., that apply to emission unit i in the absence of trading ....” should be in lower case as “i” to properly match the variable identified in equation 117.123(b)(1).

We believe that variable “i” in Figure 117.223(b)(1), the definition of Ri for (B)(ii) “any permit NOx emission limit for any unit subject to a ... to emission unit i in the absence of trading ....” should be in lower case as “i” to properly match the variable identified in equation 117.223(b)(1).

We believe that variable “i” in Figure 117.423(b)(1), the definition of Ri for (ii) where Ri, is the lowest of any permit NOx emission limit for any unit subject to a permit issued ....., that applies to emission unit i in the absence of trading ....” should be in lower case as “i” to properly match the variable identified in equation 117.423(b)(1).

While the rule sections associated with EPA’s comments are included in those sections that were proposed solely for reformatting purposes, the commenter’s suggested change is non-substantive and the change is necessary to conform to rule style and Texas Register formatting requirements. The commission has revised the case of variable “i” in Figures §§117.123(b)(1), 117.223(b)(1), 117.323(b)(1), and 117.423(b)(1) to be consistent with the definition of the variable in those figures.

The existing EPA-approved 117.115(c) states “The lists of information required in this section must be submitted electronically and on hard copy using forms provided by the executive director. This requirement does not apply to calculations or other explanatory information.” The 117.115(c), originally approved by EPA into the Texas SIP on November 14, 2001 (66 FR 57244), is being proposed for deletion. Please elaborate on the reasoning for this deletion.

The existing §117.115(c) only specified the means by which the information was required to be

submitted, i.e., electronically and on hard copy using forms provided by the executive director. The commission does not consider it necessary to mandate the method of submitting the information as long as the content is provided as required by the rule. Electronic submittals provided by owners or operators subject to this provision are not used in any specific manner that could not be satisfied by a hard copy submittal. Specifying electronic and hard copy submittals places an unnecessary requirement on the regulatory community for compliance with these particular requirements in Chapter 117.

We believe the citation of 117.3000(4) in 117.3020(l) should be 117.3000(a)(4), instead.

The commission agrees and has corrected the cross-reference error.

The 117.410(b)(7)(A) is requiring a NOx emission specification of 3.1 pounds per ton of calcium oxide for lime kilns in the DFW area; however, the 117.310(a)(13)(A) is requiring a NOx emission specification of 0.66 pounds per ton of calcium oxide for lime kilns in the HGB area. As you are aware this NOx emission factor (3.1 pounds per ton of calcium oxide for lime kilns) with the "C" rating [characterized as average] is specifically for the coal-fired rotary kilns (SCC-3-05-016-18). The 3.1 pounds NOx per ton of calcium oxide emission factor for lime kilns had been derived from the May 1975 test at the Virginia Lime Company; the December 1975 test at the Standard Lime Company in Ohio; the September 1975 test in Calera, Alabama; the July 1991 test at the Dravo Lime Company in Alabama; and the August 1974 test in Annville, Pennsylvania.

Since TCEQ is soliciting input concerning emission specification for the lime kilns, we are offering the following:

a) TCEQ will need to use actual NOx emissions from tests conducted in recent years from the lime kilns operating in Texas as a starting point in its evaluation, normally TCEQ's regional offices have such test reports available to them,

b) we are providing a copy of the California's San Joaquin Rule 4313 - Lime Kilns (adopted March 27, 2003) with this letter for your reference. The adopted NOx emission factors for lime kilns in San Joaquin Rule 4313 are fuel specific, and

c) we are providing a copy of some of the pages from the title V air permit number 21-0005 for Georgia Pacific West, Inc., in Toledo, Oregon with this letter for your reference. According to air permit 21-0005 sources identified as Emission Units #1, #2, and #3 (lime kiln #1, lime kiln #2, and lime kiln #3) are allowed to emit 0.44 pound NOx per ton of CaO produced each. See page 41 of 62 at <http://www.deq.state.or.us/wr/LocalProjects/GPToledo/AQTVPermitPart1.pdf> (UNIVERSAL RESOURCE LOCATOR dating December 19, 2006). We believe items (a) through (c) should assist you in developing a representative emission specification for lime kilns in the DFW area.

The TCEQ in its final submittal to EPA wrote:

"The commission originally considered the Houston-Galveston-Brazoria ozone nonattainment area NOx emission specification for the lime kiln source category in the Dallas-Fort Worth eight-hour ozone nonattainment area; however, during the stakeholder process, the commission received information that indicated the lime kilns in the Dallas-Fort Worth eight-hour ozone nonattainment area are a different category of lime kilns. The 0.66 lb/ton of calcium oxide for the Houston-Galveston-Brazoria ozone nonattainment area is based on lime recovery kilns at pulp and paper mills, similar to the lime kilns in the Title V information provided by EPA. The lime kilns in the Dallas-Fort Worth eight-hour ozone nonattainment area are lime manufacturing kilns. Lime manufacturing kilns use different feed materials, preheater and vertical shaft kilns, and higher temperatures and production rates. These differences make the 0.66 lb/ton emission specification infeasible for lime manufacturing kilns, based on currently available controls. In addition, recent BACT limits for lime manufacturing kilns range from 3.1 – 4.5 lb/ton of calcium oxide. The San Joaquin rule cited by EPA appears to apply to lime recovery kilns based on the feed materials described in the rule and would not be appropriate for lime manufacturing kilns. The emission specification adopted in this rulemaking, 3.7 lb/ton of calcium oxide, is based on

BACT information on permitted lime manufacturing kilns as well as the production and emission rates specific to the lime manufacturing facility in the Dallas-Fort Worth eight-hour ozone nonattainment area. A fiscal analysis of the controls for this source category was performed by the commission for proposal and was published in the December 29, 2006, issue of the Texas Register (31 TexReg 10600). However, that fiscal analysis was based on the proposed emission specification and not the controls adopted in this rulemaking for lime kilns in the Dallas-Fort Worth eight-hour ozone nonattainment area. The commission’s decision to change the control level for these lime kilns is based on technological feasibility and not economic feasibility. The cost impact to the owners or operators of lime kilns in the Dallas-Fort Worth eight-hour ozone nonattainment area will be less than projected in original fiscal analysis.”

**Lime Kilns**

*In a May 30, 2006 letter from National Lime Association (NLA) to J. Wick Havens Chief, Division of Air Resource Management, Bureau of Air Quality, P. O. Box 8468, Harrisburg, PA 17105-8468 concerning the Ozone Transport Region Measures under Consideration by OTC & MANEVU wrote: “NLA supports OTC’s decision to designate good combustion practices as the candidate control measure for lime kilns. However, OTC’s summary states that such reductions in NOx emissions would be achievable for “less than \$2,000 per ton.” We are not aware of the basis of OTC’s cost estimate. In any case, we believe that the costs of additional NOx reductions would be much greater than \$2,000 per ton because most lime kilns in Pennsylvania are subject to RACT plans that require optimized combustion. In addition, lime plants already have tremendous economic incentives to optimize combustion in order to reduce fuel use. Accordingly, we recommend that PADEP adopt OTC’s decision to specify optimized combustion for lime kilns, but that it not retain the \$2,000 per ton estimate. If you have any questions regarding these comments, please do not hesitate to contact me at (703) 243-5488.”*

**Table L – Lime kiln and NOx control summary information**

<b>Control Measure Summary:</b> Good combustion practices and kiln operation for Lime Kilns. These kilns are used for the calcination of limestone. Lime kilns are also often associated with paper mills.	<b>Emissions (tons/year) in Ozone Transport Region</b>	
<b>2002 existing measure: NSR; PSD; State RACT.</b> <i>Emission Reductions:</i> <i>Control Cost:</i> <i>Timing of Implementation:</i> <i>Implementation Area:</i> OTR	<b>NOx</b> Uncontrolled: 2002 Reduction: 2002 Base:	4,649 <u>0</u> 4,649
<b>Candidate measure: Good combustion practices and kiln operation</b> <i>Emission Reductions:</i> Under Evaluation <i>Control Cost:</i> less than \$2,000 per ton <i>Timing of Implementation:</i> 01/01/09 <i>Implementation Area:</i> OTR	<b>NOx</b> 2009 Base including growth: 2009 Reduction: 2009 Remaining:	5,228 <u>- 1,307</u> 3,921

**Policy Recommendation of State/Workgroup Lead:** Continue to evaluate good combustion practices and kiln operation to reduce NO<sub>x</sub>. It is recommended that a program be developed that tests combustion modifications for this category of sources. Continue to track emerging technologies and transfer of techniques applicable to cement kilns to the lime industry.

**Brief Rationale for Recommended Strategy:** This technology is now available and can be used across the variety of vertical and rotary kilns used in stand-alone operations and in conjunction with pulp mills and chemical processing.

**REFERENCES:**

European Commission, Integrated Pollution Prevention and Control (IPPC) Bureau. *Reference Document on Best Available Techniques in the Cement and Lime Manufacturing Industries*. December 2001. "The direct transfer of low-NO<sub>x</sub> burner technology from cement kilns to lime kilns is not straightforward. In cement kilns, flame temperatures are higher and low-NO<sub>x</sub> burners have been developed for reducing high initial levels of 'thermal NO<sub>x</sub>'. In most lime kilns the levels of NO<sub>x</sub> are lower and the 'thermal NO<sub>x</sub>' is probably less important."

Northeast States for Coordinated Air Use Management. *Assessment of Control Technology Options for BART-Eligible Sources: Steam Electric Boilers, Industrial Boilers, Cement Plants, and Paper and Pulp Facilities*. March 2005. "Due to the design of the lime kiln, SNCRs and SCRs are not viable NO<sub>x</sub> reduction techniques. Installing low-NO<sub>x</sub> burners is also not a practical NO<sub>x</sub> reduction technique according to a BACT analysis conducted on a new lime kiln in 1997...combustion modification such as decreasing excess air is the best way to reduce NO<sub>x</sub> emissions".

*The NLA's May 30, 2006 letter further states that "Since 1998, BACT analyses of NO<sub>x</sub> controls have been prepared for 11 new commercial lime kilns that have been thoroughly reviewed by U.S. EPA, state and local agencies, and the public. They all reached the conclusion that add-on controls for NO<sub>x</sub> for new lime kilns are not technically or economically possible. Instead, permits for these new kilns define BACT as efficient combustion practices, minimization of fuel consumption, and excess air for the combustion process, or some similar control techniques (see EPA Clearinghouse). OTC's control measure summary should be revised to reflect the infeasibility of SNCR and SCR controls for lime kilns. This finding is consistent with all other authorities that have evaluated the potential application of NO<sub>x</sub> controls on lime kilns."*

*The above document concerning NO<sub>x</sub> control for the lime kilns can be found at [http://www.dep.state.pa.us/dep/deputate/airwaste/aq/transport/comments/National\\_Lime\\_Association.pdf](http://www.dep.state.pa.us/dep/deputate/airwaste/aq/transport/comments/National_Lime_Association.pdf) (UNIVERSAL RESOURCE LOCATOR dating 18 December 2006).*

- For these reasons we find the adopted provisions acceptable.

The 117.410(b)(8)(B) is requiring a NO<sub>x</sub> emission specification of 0.10 lb/MMBtu for reheat furnaces in the DFW area. However, the 117.310(a)(14)(B) is requiring a NO<sub>x</sub> emission specification of 0.062 lb/MMBtu for reheat furnaces in the HGB area. Please provide technical and economical justifications on how the NO<sub>x</sub> emission specification 0.10 lb/MMBtu for reheat furnaces in the DFW area was arrived at.

The commission originally considered the Houston-Galveston-Brazoria ozone nonattainment area NO<sub>x</sub> emission specification for the reheat furnaces in the Dallas-Fort Worth eight-hour ozone nonattainment area. However, during the stakeholder process, the commission received information that indicated the specific reheat furnaces in Dallas-Fort Worth eight-hour ozone nonattainment area are significantly larger, of different design, and operate at higher temperatures than the reheat furnaces in the Houston-Galveston-Brazoria ozone nonattainment area. In addition, because the Houston-Galveston-Brazoria ozone nonattainment area has a cap and trade program in place, the source may not necessarily meet an emission specification on an individual basis but rather the overall reductions are accomplished on an area-wide basis. The emission specification proposed and adopted with this

rulemaking, 0.10 lb/MMBtu, was determined based on documented BACT limits for similar permitted units and emissions data from the reheat furnaces in the Dallas-Fort Worth eight-hour ozone nonattainment area. This emission specification represents approximately a 50% reduction from the facility's permitted rates. A fiscal analysis of the controls for this source category was performed by the commission for proposal and was published in the December 29, 2006, issue of the Texas Register (31 TexReg 10599).

Please provide technical and economical justifications on how the NOx emission specification of 0.30 lb/ton of product in 117.410(b)(8)(C) for electric arc furnaces used in steel production was arrived at.

“The current permit allowable for Chaparral’s electric arc furnaces were equivalent to the proposed limits and there would be no associated NOX reductions from the proposed limit. Chaparral added that the majority of NOX is thermal NOX created by the electric arc and not by combustion and that Chaparral units already use oxy-firing, the suggested NOX control technology, for fuel-efficiency purposes. Chaparral also requested that the NOX emission specifications for electric arc furnaces of §117.410(b)(8)(C), should it remain, specify the use of oxy-fuel burners rather than the lb/ton limit. Chaparral commented that control efficiency requirements and emission limits are not appropriate to electric arc furnaces as the majority of the NOX is thermal from the electrodes and not tied to production rates. Due to the potential technical issues and substantial costs associated with the facility’s compliance with the rule for the electric arc furnaces, and the fact that the facility has already achieved the reductions planned for electric arc furnaces under the proposed rule, the commission agrees that electric arc furnaces used in steel production should not be subject to the rule. The commission has revised the applicability to exclude electric arc furnaces used in steel production, and provided an exemption for electric arc furnaces used in steel production in §117.403. Chaparral asserted that due to some products having a higher energy demand and associated higher NOX emissions than others, the proposed NOX limits for reheating furnaces would be more practical, economically feasible, and consistent with the regulatory goals if the limits in §117.410(b)(8)(A) and (B) were to be applied only during the peak ozone season. Chaparral indicated production of the larger more energy intensive products could be scheduled in the off-season.” Based on the commission’s analysis, the commenter’s reheat furnaces should be able to achieve the emission specifications in the adopted rule through combustion modifications, installation of low-NOX burners or FGR, or a combination of these control technologies. However, the commission acknowledges that shifting seasonal production is sometimes a viable means of reducing emissions and the commenter’s request for flexibility to shift production to non-ozone season is reasonable in this case. Therefore, the commission has revised the adopted §117.410(b)(8)(A) and (B) to specify that for heat treating and reheat furnaces equipped with NOX CEMS or PEMS that the emission specifications only apply between March 1 to October 31 of each calendar year. The requirement that the unit be equipped with NOX CEMS or PEMS is necessary because the seasonal changes in emissions would make only performing an initial test insufficient for demonstrating compliance. Furthermore, the commission provided a technical discussion as well as fiscal analysis of the proposed controls for this source category in the proposal preamble published in the December 29, 2006, issue of the Texas Register (31 TexReg 10599). However, as discussed elsewhere in this preamble, the commission has decided to exempt electric arc furnaces used in steel production from this rulemaking.



**Table M - NOx control and iron and steel mills**

Furnace Type	Control	Emissions (lb/MMBtu) Regenerative	Emissions (lb/MMBtu) Recuperative	Emissions (lb/MMBtu) Cold-Air	Percent Reduction
REHEAT	LEA	0.69	0.17	0.12	13
	LNB	0.27	0.068	0.046	66
	LNB + FGR	0.18	0.046	0.031	77
Annealing	LNB	0.48	0.20	0.07	50
	LNB+FGR	0.38	0.16	0.07	60
	SNCR	0.38	0.16	0.07	60
	SCR	0.14	0.06	0.02	85
	LNB+SNCR	0.19	0.08	0.03	80
	LBB+SCR	0.095	0.04	0.015	90
Galvanizing	LNB	0.57	0.20	0.07	50
	LNB+FGR	0.46	0.16	0.06	60

Source: Alternative Control Techniques Document--NOx Emissions from Iron and Steel Mills; EPA Document No. EPA-453/R-94-065

Please provide technical and economical justifications on how the NOx emission specification of 0.45 lb/ton of product in 117.410(b)(8)(D) for lead smelting blast (cupola) and reverberatory furnaces used in conjunction was arrived at.

The commission determined the 0.45 lb/ton of product emission specification for this source based on the specific operating conditions at the facility of this source category that operates in the Dallas-Fort Worth eight-hour ozone nonattainment area. As discussed in the proposal preamble and elsewhere in this preamble, owners or operators may be required to use a combination of low-NOX burners and FGR or possibly post-combustion controls such as SNCR to achieve this emission specification. A fiscal analysis of the controls for this source category was performed by the commission for proposal and was published in the December 29, 2006, issue of the Texas Register (31 TexReg 10599).

Please provide technical and economical justifications on how the NOx emission specification of 1.30 lb/ton of glass pulled in 117.410(b)(10)(A) for glass melting furnaces was arrived at.

The commission based the proposed 1.3 lb/ton of glass pulled on the NOX emission limits from EPA's consent decree for the Saint Gobain facility in Madera, California. After further analysis of BACT and emission and production limits from the facility in the Dallas-Fort Worth eight-hour ozone nonattainment area, the commission has revised the NOX emission limit to 4.0 lb/ton glass pulled. This limit is consistent with newly drafted regulations for similar source types at San Joaquin Valley Air Pollution Control District (SJVAPCD) and Ozone Transport Commission (OTC). The 1.3 lb/ton of glass pulled NOX emission specification in the consent decree was for a new unit, not an existing unit. Furthermore, the container glass furnace planned for the Madera, California facility is a different design than the furnace located at the Saint Gobain facility in Waxahachie. A fiscal analysis of the controls for this source category was performed by the commission for proposal and was published in the December 29, 2006, issue of the Texas Register (31 TexReg 10599). The commission's decision to revise the emissions specifications for this source type was based on the additional technical information provided by commenters

and was not based on an economic analysis.

*The New Source Performance Standards (NSPS) for Glass Manufacturing Plants is contained in 40 CFR Part 60 Subpart CC and applies to any glass melting furnace facility constructed or modified after June 15, 1979. Subpart CC specifies emission standards only for particulate matter.*

*In June 1994, EPA published an Alternative Control Techniques (ACT) Document addressing NOx emissions from glass manufacturing. Several control technologies and their cost effectiveness were described. Control efficiencies ranged from 40 to 85%. The cost effectiveness estimates ranged from \$790 to \$9,900 per ton of NOx reduced. The ACT did not provide recommendations on regulatory limits.*

## **NOx Control Options**

*Several alternative different control technologies are available to glass manufacturing facilities to limit NOx emissions. These options include combustion modifications (low NOx burners, oxy-fuel firing, oxygen-enriched air staging), process modifications (fuel switching, batch preheat, electric boost), and post combustion modifications (fuel reburn, SNCR, SCR). The potential control efficiencies achievable by the different approaches and their cost effectiveness (\$/ton) vary significantly. Since the combustion and process modification options affect energy efficiency, larger facilities have likely considered one or more of these control options.*

*Several States have adopted requirements to limit NOx emissions from glass manufacturing. For comparison, the uncontrolled emission rates reported in AP-42 are 6.2 lbs/ton for container manufacturing, 8.0 lbs/ton for flat glass manufacturing, and 8.5 lbs/ton for pressed and blown glass product manufacturing. Estimates of uncontrolled emissions in EPA's ACT were somewhat higher than reported in AP-42.*

*The ACT reported uncontrolled emission rates for container manufacturing facilities were reported from 5 to 21 lbs/ton; for flat glass manufacturing, from 8 to 26 lbs/ton; and for pressed and blown glass manufacturing, from 16 to 28 lbs/ton.*

### **Glass Manufacturing**

***New Jersey** – Limits NOx emissions from commercial container manufacturing to 5.5 lbs/ton for facilities producing 14 tons or greater of glass per day. Limits NOx emissions from specialty container manufacturing to 11 lbs/ton for facilities producing 7 tons glass per day or more. Performance levels for new sources are 4 lbs/ton for commercial container manufacturing, 7 lbs/ton for flat glass, and 4 lbs/ton for pressed and blown glass.*

***Massachusetts** – Limits NOx emissions from container glass melting furnaces to 5.3 lbs/ton for facilities producing 14 tons or more glass per day.*

***Bay Area Air Quality Management District** – Limits NOx emissions from glass melting furnaces to 5.5 lbs/ton for facilities producing 5 tons or more of glass per day.*

***South Coast Air Quality Management District** - Limits NOx emissions from glass melting furnaces to 4.0 lbs/ton with exemptions for flat glass and fiberglass melting furnaces and furnaces feed entirely with re-melt feed streams.*

***San Joaquin Valley Unified Air Pollution Control District** – Limits NOx emissions from glass melting furnaces to 4.0 lbs/ton for container glass and fiberglass furnaces, and 9.2 lbs/ton for flat glass furnaces with compliance required by the next furnace rebuild or no later 3/31/2008. Prior to rebuild/compliance deadline furnaces must meet 5.5 lbs/ton for container glass and fiberglass furnaces, and 12 lbs/ton (or higher with sliding scale based on capacity utilization) for flat glass furnaces.*

**Table N - Controlled NOx percent reduction in glass manufacturing**

<b>Technology</b>	<b>NOx Reduction%</b>
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Combustion Modifications	
Modified	40
Oxy-firing	85
Process Modification	
Modified furnace	75
Cullet preheat	25
Electric boost	10
Post Combustion Modifications	
SCR	75
SNCR	40

**Table O - Controlled NOx description and applicability in glass manufacturing**

Technology	Description	Applicability
Low NOx Burners	Use of burner's designed to reduce peak flame temperature with slower mixing of fuel and air, minimum injection velocities, and higher emissivity flames	Not all furnace designs can accommodate longer flame length created by low-NOx burners
Oxy-firing	Replacing the combustion air with pure (>90%) oxygen thus reducing the nitrogen levels (thermal NOx) during combustion. Reduced air volumes result in higher energy efficiency.	Oil and gas fired furnaces. Currently used in greater than 25% of glass furnaces
Oxygen-Enriched Air Staging (OEAS)	Staged combustion process where in first stage, reduces amount of primary combustion air entering firing port to reduce NOx formation followed by an oxygen-enriched second stage to complete combustion with no additional NOx formed	Successfully retrofit on endport and sideport regenerative furnaces
Batch Pre-heat	Raw materials and cullet preheated before adding to furnace. Heat from waste heat in furnace exhaust via direct heat transfer (contact with flue gas) or indirect heat transfer (plate heat exchanger). Alternatively, low-NOx conventional burner used for pre-heat. Preheat reduces heat-load for furnace thereby reducing NOx emissions.	When 50% or more cullet is used in feed for fossil fuel fired furnaces
Electric Boost	Electric current passed through the glass mixture in furnace to provide heat, thus reducing fuel requirement and associated NOx generation.	Currently used in most container glass plants and in more than one half of all regenerative tank glass furnaces. Not viable for some colored glasses. Used to extend life of furnaces or increase capacity.
Fuel Switching – Gas to Oil	Oil combustion, while increasing fuel nitrogen, provides a flame higher in luminosity resulting in more efficient heat transfer than when gas is burned	Many furnaces can burn both fuels

**Conclusion:** Based on the above Tables, and the ACT document for glass manufacturing operations the adopted provision is acceptable and should assist in bringing the DFW area into attainment.

Please provide technical and economical justifications on how the NOx emission specification of 1.45 lb/ton of product pulled in 117.410(b)(10)(B) for mineral wool-type electric fiberglass melting furnaces was arrived at

The commission based the proposed limit of 1.45 lb/ton of product pulled for mineral wool-type fiberglass electric and regenerative furnaces on informal comments made by Johns Manville during the stakeholder process. Johns Manville indicated that the regenerative furnaces at the Johns Manville facility could reach NOX emission limits between 1.4 and 1.8 lb/ton product pulled. After reviewing formal comments received from Owens Corning, the commission has determined that the proposed emission specification of 1.45 lb/ton of product pulled is not appropriate for mineral wool-type fiberglass cold-top electric or non-regenerative gas-fired melting furnaces. The commission has revised the emission specifications in §117.410(b)(10)(B) for mineral wool-type fiberglass cold-top electric melting furnaces to 4.0 lb/ton product. The emission specification of 4.0 lb/ton product for mineral wool-type fiberglass cold-top electric melting furnaces is based on the SJVAPCD rule. In addition, the commission has revised the emission specification in

§117.410(b)(10)(D) for mineral wool-type fiberglass non-regenerative gas-fired melting furnaces to 3.1 lb/ton product. This limit is based on the permit limit for the unit at the Owens Corning facility. A fiscal analysis of the controls for this source category was performed by the commission for proposal and was published in the December 29, 2006, issue of the Texas Register (31 TexReg 10599). The commission's decision to revise the emissions specifications for this source type was based on the additional technical information provided by commenters and was not based on an economic basis.

Please provide technical and economical justifications on how the NOx emission specification of 0.036 lb/MMBtu in 117.410(b)(11) for gas-fired curing and forming ovens used in mineral wool-type or textile-type fiberglass was arrived at.

As discussed elsewhere in this preamble, the emission specification for gas-fired curing ovens is based on the use of low-NOX burners. In response to comments from Owens Corning and as explained elsewhere in this preamble, the commission has exempted forming ovens and forming processes from this rule. A fiscal analysis of the controls for this source category was performed by the commission for proposal and was published in the December 29, 2006, issue of the Texas Register (31 TexReg 10599).

We strongly support the proposed language in 117.3310(d) concerning determination of a unit's classification as of December 31, 2000.

The commission appreciates the support.

The November 21, 2006 Memo from TCEQ's Chief Engineer to Commissioners concerning docket number 2006-1512-RUL elaborates in detail on the requirements of the Texas House Bill 965 (HB 965), 79<sup>th</sup> Legislature session in 2005, for residential water heaters, small boilers, and process heaters. The EPA initially approved a revision to the NOx requirements for water heaters in a state-wide rule on October 26, 2000 (65 FR 64148), as a part of the Texas SIP. The initial Texas water heater rule has been a part of the federally approved Texas SIP since 2000, and subsequent to the approval of the initial rule Texas declared NOx SIP credit toward its attainment plan in 2000. We can understand TCEQ relying upon HB 965 in proposing repeal of the 10 ng/J or 15 ppmv at 3.0% O<sub>2</sub> standard for type 0 (residential) water heaters in 117.3205(b)(2). At the same time in order for EPA to refute potential SIP relaxation arguments technical and economical justifications for repeal of the 10 ng/J requirement in 117.3205(b)(2) and a Section 110(l) analysis in our Federal Register publication will be necessary. Therefore, TCEQ will need to either a) include the technical and economical justifications (data, charts, costs, analysis, etc.,...) with the final Chapter 117 submittal, or b) the response to comments portion of the final submittal will need, at minimum, to reference document(s) that contain this information. Obviously, if TCEQ decides to choose the above-described option "b", the identified reference document(s) will need to be made accessible to the public.

The commission provided a technical and economic analysis for Section 110(l) purposes in the proposal preamble of the Chapter 117 rule revisions as published in the December 29, 2006, issue of the Texas Register (31 TexReg 10543). As discussed elsewhere in this preamble, the technical analysis justifying the repeal of this emission standard based on the study required by HB 965 and comments received that manufacturers are currently unable to produce residential natural gas-fired water heaters that can meet the 10 ng/J NOX emission specification. This study is available on the commission's Web site at

<http://www.tceq.state.tx.us/implementation/air/sip/waterheater.html>.

Regarding the replacement reductions for the Houston-Galveston-Brazoria ozone nonattainment area, EPA commented that the water heater rule revision repealing the 10 ng/J standard on residential water heaters may be met with excess reductions obtained from minor NOX sources under a currently effective rule provided the substitutions meet certain requirements. The replacement reductions must not have previously received SIP credit, been used in SIP modeling for future dates, and not interfere with any applicable requirement concerning attainment or the Federal Clean Air Act.

Please be advised that the 8-hour ozone attainment plans for the non-attainment and near-attainment areas will need to discuss and address the NOx SIP credit and Reasonably Available Control Measures (RACM) issues as they relate to the state-wide water heater rule. As long as NOx SIP credit and RACM issues are discussed and addressed in the 8-hour ozone attainment plans submittals they do not have to be included with the Chapter 117 final submittal.

EPA requested an analysis demonstrating that the identified excess emission reductions obtained in place of the reductions that would have resulted from the water heater rule complies with Section 110(l) of the FCAA and have not been used or credited elsewhere.

As the commission indicated in the proposal preamble as published in the December 29, 2006, issue of the Texas Register (31 TexReg 10543), the modeled and SIP creditable reductions associated with 30 TAC Chapter 117, Subchapter D, Division 2 (now Subchapter D, Division 1) only includes those sources that were part of the MECT Program. The MECT Program includes a potential-to-emit de minimis exemption threshold of 10 tpy. A large number of sources in the Houston-Galveston-Brazoria ozone nonattainment area are subject to 30 TAC Chapter 117, Subchapter D, Division 2, but are exempt from the MECT Program. While this rule is included in the current approved Texas SIP, the SIP creditable reductions associated with the rule only include those sources that are subject to the MECT Program. As Table 4-1 of the Houston-Galveston-Brazoria ozone nonattainment area SIP revision shows, the 333.5 tpd reductions for point source NOX controls were credited with the MECT Program. Boilers located at sites that are exempt from the MECT Program in the Houston-Galveston-Brazoria ozone nonattainment area would be predominately, if not exclusively, classified as area sources and not included in the point source inventory. The area source NOX reductions credited from control on gas-fired heaters and small boilers is the 0.5 tpd in question from 30 TAC Chapter 117, Subchapter D, Division 1 (now Subchapter E, Division 3). Subchapter D, Division 1 applies to boilers, process heaters, and water heaters with a rated capacity up to 2.0 MMBtu/hr. Boilers rated at 2.0 MMBtu/hr or less are exempt from Subchapter D, Division 2; therefore, there is no possibility of potential overlap between the two regulations.

The 0.7 tpd excess emissions estimated from 30 TAC Chapter 117, Subchapter D, Division 2 only include reduction estimates from gas-fired boilers located at sites exempt from the MECT Program. Information for these boilers was provided by the Texas Department of Licensing and Registration (TDLR), which requires boilers larger than 400,000 Btu/hr to be registered. Some of the information required with this registration includes boiler rating in MMBtu/hr, fuel type, owner, business name, and location. The commission estimated the excess reductions based on TDLR boiler information by first excluding boilers rated at 2.0 MMBtu/hr and less and those boilers located at those sources that were known or suspected to be subject to the MECT Program. The majority of remaining boilers were located at sites that would be extremely unlikely to exceed the 10 tpy threshold, e.g., school, hotels, office buildings, dry cleaners, large residential buildings, etc. Conservative estimates of boiler

operation as well as business operation were applied to these sources to estimate boiler usage as well as exclude those boilers that would likely qualify for the low fuel usage exemption in the rule. EPA approved AP-42 emission factors were used to estimate uncontrolled NO<sub>x</sub> emission rates and reductions were calculated based on the controlled rate of 0.036 lb/MMBtu in the effective rule.

Regarding the replacement reductions proposed for the Dallas-Fort Worth eight-hour ozone nonattainment area, EPA commented that the water heater rule revision repealing the 10 ng/J standard on residential water heaters can be approved as long as Texas submits an approvable eight-hour ozone attainment demonstration for the Dallas-Fort Worth eight-hour ozone nonattainment area and the SIP demonstrates attainment as expeditiously as practicable. In addition, EPA requested that the commission use the 5% IOP SIP figures published in the August 22, 2006, issue of the Federal Register (71 FR 48870) rather than the figures provided on page 4-13 of the Dallas-Fort Worth eight-hour ozone attainment SIP. The commission has made the suggested change to the table showing the Dallas-Fort Worth eight-hour ozone nonattainment area 5% IOP reductions.

## Chapter 5 – Sample Equations Used in Chapter 117:

This chapter of the TSD includes sample Equations used in various places in Chapter 117 for calculating emissions averages and caps. At times TCEQ refers to these Equations as Figures to meet the Texas Register administrative or editorial requirements.

### Equation A – Equation 117.1005(d)

$$EL = [(0.26 a + 0.30 b) / (a + b)]$$

Where:

EL = emission specification (heat input weighted average) on a rolling 24-hour average basis;

a = the percentage of total heat input from natural gas; and

b = the percentage of total heat input from fuel oil.

- Equation 117.1005(d) is consistent with the Equation we approved at 65 FR 11468 that became effective on April 3, 2000. Thus should be given approval.

### Equation B - Equation 117.105(b)(6)

$$EL_2 = [(EL_1 \times 1.25 \times T1) + (EL_1 \times T2)] / (T1 + T2)$$

Where:

EL<sub>2</sub> = time-weighted NO<sub>x</sub> emission limitation for each 30-day period, in lb/MMBtu of heat input;

EL<sub>1</sub> = appropriate NO<sub>x</sub> emission specification for gas-fired boilers from paragraph (1)(A) - (F) of this subsection or gas-fired process heaters from paragraph (2)(A) and (B) of this section, in lb/MMBtu of heat input;

1.25 = factor used as a multiplier times the appropriate emission limitation when firing gaseous fuel that contains more than 50% hydrogen by volume, over an eight-hour period;

T1 = time in hours when firing gaseous fuel that contains more than 50% hydrogen by volume, over an eight-hour period during each 30-day period. The time period when hydrogen rich fuel is combusted must, at a minimum, be a consecutive eight-hour period to be used in the determination of T1; and

T2 = time in hours when firing gaseous fuel or hydrogen rich fuel (for less than

eight consecutive hours) during each 30-day period.

- Equation 117.105(b)(6) is consistent with the Equation we approved at 66 FR 57244 that became effective on December 14, 2001. Thus should be given approval.

**Equation C - Equation 117.123(b)(1):**

$$\text{Cap}_{30\text{day}} = \sum (H_i \times R_i)$$

Where:

$\text{Cap}_{30\text{day}}$  = The NO<sub>x</sub> 30-day rolling average emission cap in pounds per day;

$i$  = each emission unit in the emission cap;

$N$  = The total number of emission units in the emission cap;

$H_i$  = (A) for compliance with §117.105(a) – (d) of this title. The actual historical average of the daily heat input for each unit included in the source cap, in million British thermal units per day (MMBtu/day), as certified to the executive director, for a 24 consecutive month period between January 1, 1990, and June 9, 1993, plus one standard deviation of the average daily heat input for that period. All sources included in the source cap must use the same 24 consecutive month period. If sufficient historical data are not available for this calculation, the executive director may approve another method for calculating  $H_i$ ; and

(B) for compliance with §117.105(e) or §117.110 of this title. The actual historical average of the daily heat input for each unit included in the source cap, in MMBtu/day, as certified to the executive director, for a 24 consecutive month period between January 1, 1997, and December 31, 1999. All sources included in the source cap must use the same 24 consecutive month period. If sufficient historical data are not available for this calculation, the executive director and United States Environmental Protection Agency may approve another method for calculating  $H_i$ . For sources complying with the lean-burn engine emission specifications in §117.105(e) of this title, the owner or operator may combine the source cap with sources complying with §117.105(a) - (d) of this title, using the 1997 - 1999 heat input baseline described earlier for the sources complying with §117.105(a) – (d) of this title; and

$R_i$  = (A) for compliance with §117.105(a) – (d) of this title.

(i) for emission units subject to the federal New Source Review requirements of 40 Code of Federal Regulations (CFR) §§51.165(a), 51.166, or 52.21, or to the requirements of Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) that implements these federal requirements, or emission units that have been subject to a New Source Performance Standard requirement of 40 CFR Part 60 prior to June 9, 1993,  $R_i$  is the lowest of the actual emission rate or all applicable federally enforceable NO<sub>x</sub> emission limitations as of June 9, 1993, in pounds per million British thermal units (lb/MMBtu), that apply to emission unit  $i$  in the absence of trading. All calculations of emission rates must presume that emission controls in effect on June 9, 1993, are in effect for the two-year period used in calculating the actual heat input; and



(ii) for all other emission units,  $R_i$  is the lowest of the reasonably available control technology (RACT) limit of §117.105(b) – (d) or §117.115(f) of this title or the best available control technology NO<sub>x</sub> limit for any unit subject to a permit issued in accordance with Chapter 116 of this title, in lb/MMBtu, that applies to emission unit  $i$  in the absence of trading; and

(B) for compliance with §117.105(e) or §117.110 of this title, the lowest of:

(i) the appropriate specification of §§117.105(e), 117.110, or 117.115(f) of this title;

(ii) any permit NO<sub>x</sub> emission limit for any unit subject to a permit issued in accordance with Chapter 116 of this title, in lb/MMBtu, that applies to emission unit  $i$  in the absence of trading, in effect on September 10, 1993; and

(iii) the actual emission rate as of the dates specified in clause (ii) of this figure. All calculations of emission rates must presume that emission controls in effect on the dates specified in clause (ii) of this figure are in effect for the two-year period used in calculating the actual heat input.

(2) A maximum daily cap must be calculated for all emission units included in the source cap using the following equation.

**Equation D - Equation 117.123(b)(2):**

$$\text{Cap}_{\text{daily}} = \sum (H_{mi} \times R_i)$$

Where:

$\text{Cap}_{\text{daily}}$  = the NO<sub>x</sub> maximum daily cap measured in pounds per day;

$i$  = as defined in paragraph (1) of this subsection;

$N$  = as defined in paragraph (1) of this subsection;

$H_{mi}$  = the maximum daily heat input, as certified to the executive director, allowed or possible (whichever is lower) in a 24-hour period; and

$R_i$  = as defined in paragraph (1) of this subsection.

- Equations 117.123(b)(1) and 117.123(2) are consistent with those Equations we approved at 66 FR 15199 that became effective on April 16, 2001. Thus should be given approval.

**Equation E - Equation 117.3020(c):**

$$\text{Cap}_{\text{annual}} = \sum (H_i R_i / 2000)$$

Where:

$\text{Cap}_{\text{annual}}$  = the NO<sub>x</sub> annual average emission cap in tons per year;

$i$  = each unit in the electric power generating system;

$N$  = the total number of units in the emission

cap;

$H_i$  = the average of the annual heat input for each unit in the emission cap, in million British thermal units per year, as certified to the executive director, for 1996, 1997, and 1998; and

$R_i$  = the emission specification of §117.3010 of this title.

- Equation 117.3020(c) is consistent with the Equation we approved at 66 FR 57244 that became effective on December 14, 2001. Thus should be given approval.

**Equation F - Equation 117.9800(d):**

$$\Delta E = [LA (ER_{old} - ER_{new}) \times (d / 2000)]$$

Where:

$\Delta E$  = the differential of emissions;

$LA$  = the maximum level of activity;

$ER_{old}$  = the existing NOx emission rate for the affected unit in pounds per unit of activity;

$ER_{new}$  = the new NOx emission rate for the affected unit in pounds per unit of activity; and

$d$  = (A) to calculate annual emission reductions,  $d = 365$ ; and

(B) to calculate emission reductions for the remainder of a control period,  $d$  = the number of days remaining in the control period.

- Equation 117.9800(d) is consistent with the Equation we approved at 69 FR 15681 that became effective on April 26, 2004. Thus should be given approval.

This concludes our evaluation of the 30 TAC Chapter 117 Control of Air Pollution from Nitrogen Compounds as submitted to EPA in a letter dated May 30, 2007, and received by the Air Planning Section in EPA Region 6 on June 19, 2007.

## Appendix

Technical and economic feasibility study by TCEQ – December 2005

Evaluation of NOx emissions from residential water heaters in Texas by AGA – September 2004



Water Heater Feasibility Study - TCEQ.pdf



Water Heater Study Final Report - AGA.pdf