

The Texas Commission on Environmental Quality (TCEQ, agency, or commission) adopts new §§117.200, 117.203, 117.205, 117.230, 117.235, 117.240, 117.245, 117.252, 117.1100, 117.1103, 117.1105, 117.1120, 117.1140, 117.1145, 117.1152, 117.3124, 117.9010, and 117.9110; and amendments to §§117.10, 117.310, 117.340, 117.410, 117.440, 117.2010, 117.2035, 117.2110, 117.2135, 117.3000, 117.3103, 117.3110, 117.3120, 117.3145, 117.9030, 117.9300, 117.9320, and 117.9800.

New §117.1120 and §117.1140 are adopted with changes to the proposed text as published in the December 15, 2023, issue of the *Texas Register* (48 TexReg 7439) and, therefore, will be republished. All other new and amended sections are adopted without changes to the proposed text as published in the December 15, 2023, issue of the *Texas Register* (48 TexReg 7439) and, therefore, will not be republished.

The amended sections will be submitted to the United States Environmental Protection Agency (EPA) as revisions to the State Implementation Plan (SIP).

## **Background and Summary of the Factual Basis for the Adopted Rules**

### **Reasonably Available Control Technology (RACT) Rules for Major Sources**

The 1990 federal Clean Air Act (CAA) Amendments (42 United States Code (USC), §§7401 et seq.) require EPA to establish primary National Ambient Air Quality Standards (NAAQS) that protect public health and to designate areas as either in attainment or nonattainment with the NAAQS, or as unclassifiable. States are primarily responsible for ensuring attainment and maintenance of the NAAQS once established by the EPA. Each state is required to submit a SIP to the EPA that provides for attainment and maintenance of the NAAQS.

Nonattainment areas classified as moderate and above are required to meet the mandates of the FCAA under §172(c)(1) and §182(b)(2) and (f). FCAA, §172(c)(1) requires that the SIP incorporate all reasonably available control measures, including RACT, as expeditiously as practicable for major sources of volatile organic compounds (VOC) and for all VOC sources covered by EPA-issued control techniques guidelines. FCAA, §182(f) requires the state to submit a SIP revision that implements RACT for all major sources of nitrogen oxides (NO<sub>x</sub>).

The EPA defines RACT as the lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility (44 *Federal Register* (FR) 53761, September 17, 1979). RACT requirements for moderate and higher classification nonattainment areas are included in the FCAA to assure that significant source categories at major sources of ozone precursor emissions are controlled to a reasonable extent, but not necessarily to best available control technology (BACT) levels expected of new sources or to maximum achievable control technology (MACT) levels required for major sources of hazardous air pollutants. Although the FCAA requires the state to implement RACT, EPA guidance provides states with the flexibility to determine the most technologically and economically feasible RACT requirements for a nonattainment area. A major source is any stationary source or group of sources located within a contiguous area and under common control that emits or has the potential to emit a specific amount of NO<sub>x</sub> emissions based on the area's nonattainment classification.

The adopted rulemaking will implement RACT requirements for major sources of NO<sub>x</sub> in the Dallas-Fort Worth eight-hour ozone nonattainment area (DFW) and in Bexar County. TCEQ evaluated the existing major sources in the DFW area and in Bexar County and considered state and federal rules to determine what rules are necessary to fulfill FCAA RACT requirements. The

adopted rules are necessary so that all major NO<sub>x</sub> emission sources in the DFW area and Bexar County are subject to rules in 30 Texas Administrative Code (TAC) Chapter 117, or other federally enforceable measures, that meet or exceed the applicable RACT requirements. Additional NO<sub>x</sub> controls on major sources were determined to be either not economically feasible or not technologically feasible, as documented in the concurrently adopted SIP revisions for Bexar County and the DFW and Bexar County areas (Project Nos. 2023-107-SIP-NR and 2023-132-SIP-NR, respectively).

#### **Bexar County RACT**

Bexar County is currently classified as moderate nonattainment for the 2015 eight-hour ozone NAAQS (87 FR 60897, October 7, 2022). Bexar County must attain the 2015 eight-hour ozone NAAQS by September 24, 2024 (87 FR 60897). The SIP revision to address FCAA requirements, including RACT, was due to the EPA by January 1, 2023, but the commission was unable to complete the review prior to the submission deadline. On October 18, 2023, EPA published a finding of failure to submit required SIP revisions for the 2015 eight-hour ozone NAAQS moderate nonattainment areas, effective November 17, 2023 (88 FR 71757). On October 12, 2023, Texas Governor Greg Abbott signed and submitted a letter to EPA to reclassify the Bexar County, DFW, and HGB moderate 2015 eight-hour ozone NAAQS nonattainment areas to serious. EPA's proposal to reclassify these areas to serious in accordance with Governor Abbott's letter was published on January 26, 2024 (89 FR 5145). EPA proposes that a number of moderate classification requirements are still due, including a RACT demonstration for Bexar County. This rulemaking and the concurrent Bexar County RACT SIP revision (Project No. 2023-132-SIP-NR) satisfy the NO<sub>x</sub> RACT demonstration portion of the outstanding moderate area classification requirements for the 2015 eight-hour ozone NAAQS.

In Bexar County, a major source is any stationary source or group of sources located within a contiguous area and under common control that emits or has the potential to emit at least 100 tons per year (tpy) of NO<sub>x</sub>. To identify all major sources of NO<sub>x</sub> emissions in Bexar County, TCEQ reviewed the point source emissions inventory and Title V databases. All sources in the Title V database that were listed as a major source for NO<sub>x</sub> emissions were included in the RACT analysis. Since the point source emissions inventory database reports actual emissions rather than potential to emit, TCEQ reviewed sources that reported actual emissions as low as 50 tpy of NO<sub>x</sub> to account for the difference between actual and potential emissions. Sites from the emissions inventory database with emissions of 50 tpy or more of NO<sub>x</sub> that were not identified in the Title V database and could not be verified as minor sources by other means are also included in the RACT analysis. The existing Chapter 117 rules, rules in other states, and federal rules were considered to evaluate what rules will be necessary to fulfill RACT requirements.

The adopted rulemaking implements RACT requirements for major sources of NO<sub>x</sub> in Bexar County. The adopted provisions include emission standards, exemptions, monitoring, recordkeeping, reporting, and testing requirements that will apply to engines, turbines, boilers, and cement kilns at major sources of NO<sub>x</sub> emissions in Bexar County. Affected sources will have to comply with these rules by January 1, 2025. The adoption includes new divisions or sections in 30 TAC Chapter 117, Subchapter B, Combustion Control at Major Industrial, Commercial, and Institutional Sources in Ozone Nonattainment Areas; Subchapter C, Combustion Control at Major Utility Electric Generation Sources in Ozone Nonattainment Areas; and Subchapter H, Administrative Provisions, Division 1, Compliance Schedule. In support of the new requirements, revisions will be adopted to Subchapter A, Definitions; Subchapter E, Multi-Region Combustion Control; and Subchapter H, Administrative Provisions, Division 2,

Compliance Flexibility.

#### **DFW RACT**

The DFW area (Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise Counties) was reclassified as severe for the 2008 eight-hour ozone NAAQS (87 FR 60926, October 7, 2022). The DFW area must attain the 2008 eight-hour ozone NAAQS by July 20, 2027 (87 FR 60926). The SIP revision to address severe nonattainment area requirements is due to the EPA on May 7, 2024.

In the DFW 2008 severe ozone NAAQS nonattainment area, a major source is any stationary source or group of sources located within a contiguous area and under common control that emits or has the potential to emit at least 25 tpy of NO<sub>x</sub>. TCEQ reviewed the point source emissions inventory and Title V databases to identify all major sources of NO<sub>x</sub> emissions in the DFW area. All sources in the Title V database that were listed as a major source for NO<sub>x</sub> emissions were included in the RACT analysis. Since the point source emissions inventory database reports actual emissions rather than potential to emit, the TCEQ reviewed sources that reported actual emissions as low as 10 tpy of NO<sub>x</sub> to account for the difference between actual and potential emissions. Sites from the emissions inventory database with emissions of 10 tpy or more of NO<sub>x</sub> that were not identified in the Title V database and could not be verified as minor sources by other means are also included in the RACT analysis.

The existing Chapter 117 rules were compared to rules in other states and federal rules to determine whether the existing rules continue to fulfill RACT requirements. Chapter 117 rules that are consistent with or more stringent than controls implemented in other nonattainment areas were determined to fulfill RACT requirements. Federally approved state rules and rule

approval dates can be found in 40 Code of Federal Regulations (CFR) §52.2270(c), *EPA*

*Approved Regulations in the Texas SIP*. Emission sources subject to the more stringent BACT or MACT requirements were determined to also fulfill RACT requirements.

The commission reviewed the emission sources in the DFW area and the applicable Chapter 117 rules to verify that all major emission sources in the DFW area are subject to requirements that meet or exceed the applicable RACT requirements, or that further emission controls on the sources were either not economically feasible or not technologically feasible. The current EPA-approved Chapter 117 rules continue to fulfill RACT requirements. Additional NO<sub>x</sub> controls on major sources were determined to be either not economically feasible or not technologically feasible.

The adopted rule project implements RACT requirements for major sources of NO<sub>x</sub> in the DFW area. The adopted rulemaking will revise the definitions in Chapter 117, Subchapter A and compliance schedules in Subchapter H, Division 1 to lower the major source threshold from 50 tpy NO<sub>x</sub> to 25 tpy of NO<sub>x</sub>. Because the DFW area was previously classified as serious nonattainment for the 2008 eight-hour ozone standard, sources that emit or have the potential to emit at least 50 tpy NO<sub>x</sub> are already required to comply with Chapter 117 RACT rules. This adopted rulemaking will extend implementation of RACT to all major sources of NO<sub>x</sub> that emit or have the potential to emit at least 25 tpy NO<sub>x</sub>. The adopted rulemaking will require major sources of NO<sub>x</sub> to comply with new emission limits, control requirements, or operating requirements as well as other associated rule provisions necessary to implement any required NO<sub>x</sub> control measures, such as monitoring, testing, recordkeeping, reporting, and exemptions by no later than November 7, 2025.

### **Rule Petition Revisions for the DFW and Houston-Galveston-Brazoria (HGB) Areas**

On May 10, 2023, the commissioners directed the Executive Director to initiate a rulemaking to examine the issues raised in a rulemaking petition filed with the TCEQ on March 13, 2023, by Baker Botts LLP, on behalf of the Texas Industry Project under 30 TAC §20.15. As directed by the commission, the Executive Director reviewed the issues raised in the March 13, 2023, rulemaking petition. This adopted rulemaking will revise 30 TAC Chapter 117 for sources in the DFW and HGB areas to remove the requirements for certain engines to monitor NO<sub>x</sub> emissions using continuous emissions monitoring systems (CEMS) or a predictive emissions monitoring system (PEMS), to adjust the applicable ammonia emission limit to be consistent with typical operation of diesel engines, and to remove the ammonia monitoring requirements for these engines. Although the Chapter 117 ammonia standards are not part of the SIP, both the NO<sub>x</sub> and ammonia monitoring requirements are included as part of the SIP. Therefore, the rule changes will be submitted as part of the SIP.

The existing rules for major sources of NO<sub>x</sub> in the DFW and HGB areas require the owner or operator of units that use a chemical reagent for reduction of NO<sub>x</sub> emissions to install a CEMS or PEMS to monitor exhaust NO<sub>x</sub> emissions (see §117.340(c)(1)(D) and §117.440(c)(1)(C)). The existing rules for major and minor sources of NO<sub>x</sub> in the DFW and HGB areas require the owner or operator of units that use a chemical reagent for reduction of NO<sub>x</sub> emissions (to comply with an ammonia emission specification and therefore) to monitor ammonia emissions from the unit using one of the ammonia monitoring procedures specified in §117.8130 (see §§117.340(d), 117.440(d), 117.2035(e)(2), and 117.2135(d)(2)). These monitoring requirements are used to verify that affected units meet the applicable NO<sub>x</sub> and ammonia emission limits and provide additional assurance that NO<sub>x</sub> and ammonia emission rates will not increase due to variation in the operation of the SCR systems.

Manufacturer-certified Tier 4 engines rely on selective catalytic reduction (SCR) with a chemical reagent (such as urea or ammonia) to meet the federal limits in 40 CFR Part 1039, Subpart B. These engines are not manufactured with pre-installed CEMS because they are designed, tested, and certified to ensure that NO<sub>x</sub> emissions conform to federal Tier 4 standards during all normal operating conditions. The engine and emission control system are designed to minimize or exclude adjustable operating parameters and all adjustable parameters include restrictions, limits, stops, or other means of inhibiting adjustment to prevent adjusting parameters to settings outside the tested ranges. Tier 4 engines with SCR systems are designed to ensure the system operates within the certified parameters and equipped with an engine diagnostic system that issues a warning if the quality or quantity of the reductant does not meet the design specifications. Ensuring the proper operation of the emission control system also ensures that ammonia emissions remain low.

Given that the engine and emission control system cannot be manipulated by operators due to the certified engine design and considering the significant cost of installing and operating a CEMS and the logistics of installing a building for the monitoring system for a unit that may be moved from one location to another, the commission adopts that a CEMS or PEMS is not necessary under Chapter 117 to provide reasonable assurance of compliance with the applicable NO<sub>x</sub> and ammonia emission specifications for stationary diesel engines subject to the requirements of 40 CFR Part 1039, Subpart B, and the commission adopts to exempt these engines from the CEMS and PEMS NO<sub>x</sub> monitoring requirements and the ammonia monitoring requirements in Chapter 117.

The existing rules for major and minor sources of NO<sub>x</sub> in the DFW and HGB areas require the



owner or operator of units subject to an ammonia emission specification under Chapter 117 to demonstrate initial compliance with the applicable ammonia specification (see §§117.340(d), 117.440(d), 117.2035(e)(2), and 117.2135(d)(2)). Because these units will not be equipped and operating with a CEMS or PEMS, owners or operators of these affected units will be required to conduct a stack test according to one of the allowed test methods under existing §117.8000(c)(4). The adopted rules also require these engines to be equipped with an engine diagnostic system that measures the quantity and quality of reductant to ensure proper operation of the SCR control system based on the requirements of existing 40 CFR Part 1039, Subpart B, §1039.110.

Existing Chapter 117 rules require that ammonia emissions must not exceed 10 parts per million by volume (ppmv) at 3.0% oxygen (O<sub>2</sub>), dry, for all units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control. The commission adopts that correcting ammonia concentrations to the 3.0% O<sub>2</sub> level currently required is inappropriate for diesel engines that operate at significantly higher excess air in the exhaust stream and is adopting revisions to allow diesel engines to use the 15% O<sub>2</sub> correction consistent with the Chapter 117 standards for other equipment that also operates with higher O<sub>2</sub> in the exhaust gas (see §§117.310(c)(2), 117.410(c)(2), 117.2010(i)(2), 117.2110(h)(2)).

*Demonstrating Noninterference Under FCAA §110(l)*

The adopted changes are not expected to adversely impact Texas's progress in attaining the eight-hour ozone NAAQS. These manufacturer-certified Tier 4 engines remain subject to the NO<sub>x</sub> and ammonia emission limits in Chapter 117. The engines are also required to comply with NO<sub>x</sub> monitoring and testing requirements and ammonia testing requirements that will provide for the accurate accounting of emissions and provide reasonable assurance of compliance with the

applicable NO<sub>x</sub> and ammonia emission specifications for these stationary diesel engines. The adopted requirement for the diagnostic system to alert the owner or operator when the reductant material quality is not within material concentration specifications, as established by the SCR control system equipment manufacturer, will also provide confidence that the NO<sub>x</sub> emission controls are properly functioning. All of these requirements will ensure no backsliding from the current SIP-approved requirements.

## **Section by Section Discussion**

### **Subchapter A, Definitions**

The commission adopts a revision to the definition of applicable ozone nonattainment area in §117.10(2) to include the Bexar County ozone nonattainment area, which consists of Bexar County, and then re-letters the definitions for the subsequent areas as necessary to put the list in alphabetical order.

The adoption revises the definition of electric power generating system in §117.10(14) to include adopted new Subchapter C, Division 2 for Bexar County Ozone Nonattainment Area Utility Electric Generation Sources and to exclude Bexar County sources from existing rules for Utility Electric Generation in East and Central Texas in Subchapter E, Division 1 after December 31, 2024. This change ensures that EGUs in Bexar County will remain in compliance with the existing rule until they are required to comply with the adopted new rule. Portions of the existing definition will be re-numbered as necessary to keep the list in alphabetical order.

The adoption revises the §117.10(29) definition of major source to include any stationary source or group of sources located within a contiguous area and under common control that emits or has the potential to emit at least 100 tpy of NO<sub>x</sub> and is in the Bexar County ozone

nonattainment area. The definition will also be revised to ensure that for the purposes of Chapter 117 Bexar County sources are only included in the major source definition contained in 40 CFR §52.21 (as amended June 3, 1993, effective June 3, 1994) until December 31, 2024, when sources are required to comply with the adopted new rule. The adoption also revises the definition of major source in §117.10(29) to lower the major source threshold from 50 tpy to 25 tpy of NO<sub>x</sub> for sources in the DFW area. The change is necessary to account for the area's severe classification for the 2008 eight-hour ozone NAAQS. Major sources affected by the adopted rulemaking are required to comply with all applicable Chapter 117 rules by November 7, 2025, as stated in adopted changes to §117.9030. Minor sources that are currently subject to Chapter 117, Subchapter D, Division 2 remain subject to that division until they are required to comply with the major source rule in Chapter 117, Subchapter B, Division 4. This is necessary since engines at sources that emit or have the potential to emit more than 25 tpy NO<sub>x</sub> but no more than 50 tpy NO<sub>x</sub> will be transitioning from compliance with the minor source rule to compliance with the major source rule. The adopted compliance date was selected based on the RACT due date from EPA's severe reclassification final rule (87 FR 60931, October 7, 2022). Portions of the existing definition will be re-lettered as necessary to keep the list in alphabetical order.

The adopted rule revises the §117.10(51) definition of unit to reflect the adopted new requirements for Bexar County. The adopted change adds that for the purposes of §117.205 and associated requirements, a unit is any stationary gas turbine (including any duct burner used in the turbine exhaust duct) or gas-fired lean-burn stationary reciprocating internal combustion engine. The adopted rule also adds that for the purposes of §117.1105 and associated requirements, a unit is any utility boiler, auxiliary steam boiler, or stationary gas turbine (including any duct burner used in turbine exhaust ducts).

## **Subchapter B, Combustion Control at Major Industrial, Commercial, and Institutional Major Sources in Ozone Nonattainment Areas**

### **Division 2, Bexar County Ozone Nonattainment Area Major Sources**

The adopted rulemaking adds new Subchapter B, Division 2 to include RACT rules for major sources in Bexar County as required by FCAA §172(c)(1) and §182(f). The adopted new division sets NO<sub>x</sub> emission limits for major sources in Bexar County and includes requirements necessary to demonstrate compliance with these limits, including monitoring, testing, reporting, and recordkeeping requirements. The adopted requirements are based on and are consistent with EPA-approved requirements for other nonattainment areas in the state.

Adopted new §117.200 specifies the rule applicability for the division. The adopted new division applies to stationary gas turbines, duct burners used in turbine exhaust ducts, and gas-fired lean-burn stationary reciprocating internal combustion engines located at any major stationary source of NO<sub>x</sub> in Bexar County.

Adopted new §117.203 lists the units that are exempt from this division, except for the monitoring, testing, recordkeeping, and reporting requirements in adopted new §§117.240(i), 117.245(f)(4) and (9), and 117.252, which are necessary to document that the unit meets the exemption criteria. The adopted rule exempts stationary gas turbines and gas-fired lean-burn stationary reciprocating internal combustion engines that are used: in research and testing of the unit; for purposes of performance verification and testing of the unit; solely to power other gas turbines or engines during startups; exclusively in emergency situations, except that operation for testing or maintenance purposes of the gas turbine or engine is allowed for up to 100 hours per year, based on a rolling 12-month basis; or in response to and during the

existence of any officially declared disaster or state of emergency. The adopted rule also exempts gas-fired lean-burn stationary reciprocating internal combustion engines with a horsepower (hp) rating less than 50 hp, and stationary gas turbines with a maximum rated capacity less than 10.0 million British thermal units per hour (MMBtu/hr). These adopted exemptions are consistent with EPA-approved exemptions for these same sources in other ozone nonattainment areas in Texas. The adopted rule also clarifies that units located at a major source that is subject to the adopted requirements for electric generating units in Subchapter C, Division 2 are exempt from this division.

Adopted new §117.205 lists the NO<sub>x</sub> emission specifications for RACT for affected units at major sources in Bexar County. Adopted subsection (a) limits NO<sub>x</sub> emissions from stationary gas turbines to 0.55 pound per million British thermal unit (lb/MMBtu); limits NO<sub>x</sub> emissions from duct burners used in turbine exhaust ducts to 0.55 lb/MMBtu; and limits NO<sub>x</sub> emissions from gas-fired lean-burn stationary reciprocating internal combustion engines to 0.5 gram per horsepower-hour. The adopted limits are the same as limits for RACT sources in other nonattainment areas in Texas and are achievable using technologically and economically feasible controls. Adopted subsection (b) states that the emission specifications apply on a block one-hour average, in the units of the applicable emission specification, or if the unit is operated with a NO<sub>x</sub> CEMS or PEMS the limits apply on a rolling 30-day average, in the units of the applicable emission specification. Adopted subsection (c) clarifies that the owner or operator may use emission credits for compliance with these emission specifications in accordance with §117.9800. This option is consistent with compliance options provided for RACT sources in other nonattainment areas in the state. Adopted subsection (d) lists requirements that are intended to prevent circumvention of these rules. Adopted subsection (d) specifies that the maximum rated capacity used to determine the applicability of the emission

specifications in this section and the other associated requirements in this division must be the greater of the maximum rated capacity as of December 31, 2019; the maximum rated capacity after December 31, 2019; or the maximum rated capacity authorized by a permit issued under 30 TAC Chapter 116 after December 31, 2019. Adopted subsection (d) also states that the unit's classification is determined by the most specific classification applicable to the unit as of December 31, 2019. For example, a unit that is classified as a gas-fired lean-burn stationary reciprocating internal combustion engine as of December 31, 2019, but subsequently is authorized to operate as a dual-fuel engine, is classified as a gas-fired lean-burn stationary reciprocating internal combustion engine for the purposes of this chapter. Adopted subsection (d) also requires that a source that met the definition of major source on December 31, 2019, is always classified as a major source for purposes of this chapter. A source that did not meet the definition of major source (i.e., was a minor source, or did not yet exist) on December 31, 2019, but becomes a major source at any time after December 31, 2019, is from that time forward always classified as a major source for purposes of this chapter. December 31, 2019, was selected since 2019 is the emissions inventory year used in the attainment demonstration SIP modeling.

Adopted new §117.230 lists the operating requirements for units subject to the §117.205 RACT limits and requires all units to be operated to minimize NO<sub>x</sub> emissions over the unit's operating or load range during normal operations. The adopted rule requires each unit controlled with post-combustion control techniques to be operated such that the reducing agent injection rate is maintained to limit NO<sub>x</sub> concentrations to less than or equal to the NO<sub>x</sub> concentrations achieved at maximum rated capacity. The adopted rule also requires each gas-fired lean-burn stationary reciprocating internal combustion engine to be checked for proper operation in accordance with the engine monitoring requirements in to §117.8140(b). These adopted

operating requirements are consistent with EPA-approved requirements for these same sources in other ozone nonattainment areas in Texas.

Adopted new §117.235 contains the requirements for the initial demonstration of compliance with the adopted new §117.205 RACT limits. Adopted subsection (a) requires the owner or operator of any unit subject to the emission specifications in §117.205 to test the unit for NO<sub>x</sub> and oxygen (O<sub>2</sub>) emissions while firing gaseous fuel or, as applicable, liquid, and solid fuel. Adopted subsection (b) requires the initial demonstration of compliance testing to be performed in accordance with the compliance schedule in adopted new §117.9010. Adopted subsection (c) requires the initial demonstration of compliance tests to use the methods referenced in subsection (d) or (e). The adoption requires the tests be used for determination of initial compliance with the RACT emission specifications and requires test results to be reported in the units of the applicable emission specifications and averaging periods. Adopted new subsection (d) specifies that any CEMS or PEMS required by §117.240 must be installed and operational before conducting the required tests. The adoption specifies that 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 or system. Adopted new subsection (e) states that for units operating without CEMS or PEMS, compliance with the emission specifications must be demonstrated according to the stack testing requirements in §117.8000. Adopted new subsection (f) states that for units operating with CEMS or PEMS, initial compliance with the emission specifications must be demonstrated after monitor certification testing using the CEMS or PEMS. For units complying with a NO<sub>x</sub> emission specification on a block one-hour average, every one-hour period while operating at the maximum rated capacity (or as near thereto as practicable) is used to determine compliance with the NO<sub>x</sub> emission specification.

Adopted new subsection (g) requires compliance stack test reports to include the information required in §117.8010. These adopted requirements are consistent with EPA-approved requirements for these same sources in other ozone nonattainment areas in Texas.

Adopted new §117.240 includes the requirements for continuous demonstration of compliance with the RACT emission specifications. Adopted new subsection (a) requires units to have totalizing fuel flow meters, with an accuracy of  $\pm 5\%$ , 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. The owner or operator must continuously operate the totalizing fuel flow meter at least 95% of the time when the unit is operating during a calendar year. For the purpose of compliance with this subsection for units having pilot fuel supplied by a separate fuel system or from an unmonitored portion of the same fuel system, the fuel flow to pilots may be calculated using the manufacturer's design flow rates rather than measured with a fuel flow meter. The calculated pilot fuel flow rate must be added to the monitored fuel flow when fuel flow is totaled. Adopted subsection (a) also provides alternatives to the fuel flow monitoring requirements. The adopted alternative for units operating with a  $\text{NO}_x$  and diluent CEMS may monitor stack exhaust flow using the flow monitoring specifications of 40 CFR Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A. Units that vent to a common stack with a  $\text{NO}_x$  and diluent CEMS may use a single totalizing fuel flow meter. Gas-fired lean-burn stationary reciprocating internal combustion engines and gas turbines equipped with a continuous monitoring system that continuously monitors horsepower and hours of operation are not required to install totalizing fuel flow meters. The continuous monitoring system for such units must be installed, calibrated, maintained, and operated according to manufacturers' recommended procedures.



Adopted new subsection (b) specifies the requirements for NO<sub>x</sub> monitors. The adoption requires using a CEMS or PEMS to monitor exhaust NO<sub>x</sub> for units with a rated heat input greater than or equal to 100 MMBtu per hour; stationary gas turbines with a megawatt (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>; and units that the owner or operator elects to comply with the NO<sub>x</sub> emission specifications of §117.205(a) using a pound per MMBtu limit on a 30-day rolling average. The adoption specifies that units subject to the NO<sub>x</sub> CEMS requirements of 40 CFR Part 75 are not required to install CEMS or PEMS under this subsection. The adoption provides options that the owner or operator must use to provide substitute emissions compliance data during periods when the NO<sub>x</sub> monitor is off-line. The adoption requires that if the NO<sub>x</sub> monitor is a CEMS subject to 40 CFR Part 75, the missing data procedures specified in 40 CFR Part 75, Subpart D must be to provide substitute emissions compliance data during periods when the NO<sub>x</sub> monitor is off-line. The adoption requires that if the NO<sub>x</sub> monitor is a CEMS subject to subject to 40 CFR Part 75, Appendix E, the missing data procedures specified in 40 CFR Part 75, Appendix E, §2.5 must be used to provide substitute emissions compliance data during periods when the NO<sub>x</sub> monitor is off-line. The adoption requires that if the NO<sub>x</sub> monitor is a PEMS, the methods specified in 40 CFR Part 75, Subpart D or calculations in accordance with §117.8110(b) must be used to provide substitute emissions compliance data during periods when the NO<sub>x</sub> monitor is off-line. The owner or operator can monitor operating parameters for each unit in accordance with 40 CFR Part 75, Appendix E, §1.1 or §1.2 and calculate NO<sub>x</sub> emission rates based on those procedures. Lastly, the owner or operator can use the maximum block one-hour emission rate as measured during the initial demonstration of compliance required in §117.235.

Adopted new subsection (c) requires the owner or operator of any CEMS used to meet a pollutant monitoring requirement of this section to comply with the emission monitoring

system requirements of §117.8100(a). Adopted new subsection (d) requires any PEMS used to meet a pollutant monitoring requirement of this section must predict the pollutant emissions in the units of the applicable emission limit and must meet the emission monitoring system requirements of §117.8100(b). Adopted new subsection (e) requires the owner or operator of any gas-fired lean-burn stationary reciprocating internal combustion engine subject to the emission specifications in §117.205 to stack test engine NO<sub>x</sub> emissions as specified in §117.8140(a). Adopted new subsection (f) requires the owner or operator of any stationary gas turbine or gas-fired lean-burn stationary reciprocating internal combustion engine claimed exempt using the exemption of §117.203(1)(D) to record the operating time with a non-resettable elapsed run time meter in order to the unit meets the exemption criteria. Adopted new subsection (g) requires that after the initial demonstration of compliance required by §117.235, the methods required in this section must be used to determine compliance with the emission specifications. For enforcement purposes, the executive director may also use other commission compliance methods to determine whether the unit is in compliance with applicable emission specifications. Adopted new subsection (h) requires the owner or operator of units that are subject to the emission specifications in §117.205 to test the units as specified in §117.235 in accordance with the applicable schedule specified in §117.9010. The adoption also requires the owner or operator of any unit not equipped with CEMS or PEMS that are subject to the emission specifications of §117.205 to retest the unit as specified in §117.235 within 60 days after any modification that could reasonably be expected to increase the NO<sub>x</sub> emission rate.

Adopted new section §117.245 includes the notification, recordkeeping, and reporting requirements necessary to demonstrate compliance with this division. Adopted new subsection (a) requires that for units subject to the startup and/or shutdown provisions of §101.222,

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 by the executive director, the EPA, and any local air pollution control agency having jurisdiction upon request. These records must include but are not limited to: type of fuel burned; quantity of each type of fuel burned; and the date, time, and duration of the procedure. Adopted new subsection (b) requires the owner or operator of a unit subject to the emission specifications of §117.205 to submit written notification of any CEMS or PEMS relative accuracy test audit (RATA) conducted under §117.240 or any testing conducted under §117.235 at least 15 days in advance of the date of the RATA or testing to the appropriate regional office and any local air pollution control agency having jurisdiction. Adopted new subsection (c) requires the owner or operator of a unit subject to the emission specifications of §117.205(a) to 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 §117.235 and any CEMS or PEMS RATA conducted under §117.240 within 60 days after completion of such testing or evaluation and not later than the compliance date specified in §117.9010.

Adopted new §117.245(d) requires the owner or operator of a unit required to install a CEMS or PEMS under §117.240 to report in writing to the executive director on a semiannual basis any exceedance of the applicable emission specifications of this division and the monitoring system performance. All reports must be postmarked or received by the 30th day following the end of each calendar semiannual period (i.e., July 30 and January 30). The adoption specifies that the written reports must include the magnitude of excess emissions computed in accordance with 40 CFR §60.13(h), any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the unit operating time during the reporting period. The reports must specifically identify each period of excess emissions that

occurs during startups, shutdowns, and malfunctions of the affected unit, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted. The reports must include the date and time identifying each period when the continuous monitoring system was inoperative (except for zero and span checks), the nature of the system repairs or adjustments, and periods when no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted. The adoption specifies that only a summary report form (as outlined in the latest edition of the commission's Guidance for Preparation of Summary, Excess Emission, and Continuous Monitoring System Reports) must be submitted, unless otherwise requested by the executive director, if the total duration of excess emissions for the reporting period is less than 1.0% of the total unit operating time for the reporting period and the CEMS or PEMS downtime for the reporting period is less than 5.0% of the total unit operating time for the reporting period. If the total duration of excess emissions for the reporting period is greater than or equal to 1.0% of the total unit operating time for the reporting period or the CEMS or PEMS downtime for the reporting period is greater than or equal to 5.0% of the total unit operating time for the reporting period, a summary report and an excess emission report must both be submitted.

Adopted new subsection (e) requires the owner or operator of any gas-fired engine subject to the emission specifications in §117.205 to report in writing to the executive director on a semiannual basis any excess emissions and the air-fuel ratio monitoring system performance. All reports must be postmarked or received by the 30th day following the end of each calendar semiannual period (i.e., July 30 and January 30). The adoption specifies that the written reports must include the magnitude of excess emissions (based on the quarterly emission checks of §117.230(a)(2)) and the biennial emission testing required in accordance with §117.240(e), computed in pounds per hour and grams per horsepower-hour, any conversion factors used,

the date and time of commencement and completion of each time period of excess emissions, and the engine operating time during the reporting period. The report must also specifically identify, to the extent feasible, of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the engine or emission control system, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

Adopted new subsection (f) requires the owner or operator of a unit subject to the requirements of this division to 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. The adoption specifies that the records must include records of annual fuel usage for each unit subject to §117.240(a). For each unit using a CEMS or PEMS in accordance with §117.240, the records must include monitoring records of hourly emissions and fuel usage (or stack exhaust flow) for units complying with an emission specification enforced on a block one-hour average; or daily emissions and fuel usage (or stack exhaust flow) for units complying with an emission specification enforced on a daily or rolling 30-day average. Emissions must be recorded in units of pounds per million British thermal units (lb/MMBtu) heat input and pounds or tons per day. The adoption requires that for each stationary internal combustion engine subject to the emission specifications of this division, records must include emissions measurements required by §117.230(2) and §117.240(e) of this title; catalytic converter, air-fuel ratio controller, or other emissions-related control system maintenance, including the date and nature of corrective actions taken; and 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 §117.240(a)(2)(C). The adoption requires that for units claimed exempt from emission specifications using the exemption in

§117.203(a)(1)(D), records must include monthly hours of operation. In addition, for each turbine or engine claimed exempt under §117.203(a)(1)(D) or (E), written records must be maintained of the purpose of turbine or engine operation and, if operation was for an emergency situation, identification of the type of emergency situation and the start and end times and date(s) of the emergency situation. The adoption requires records of the results of initial certification testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS or PEMS. The adoption also requires records of the results of performance testing, including initial demonstration of compliance testing conducted in accordance with §117.235.

Adopted new §117.252 contains the control plan procedures for RACT. The adoption requires the owner or operator of any unit subject to §117.205 to maintain a control plan report to show compliance with the requirements of §117.205. The report must include a list of all units that are subject to §117.205 that specifies: the facility identification number and emission point number as submitted to the Emissions Assessment Section of the commission; the emission point number as listed on the Maximum Allowable Emissions Rate Table of any applicable commission permit; the maximum rated capacity; the method of NO<sub>x</sub> control for each unit; the emissions measured by testing required in §117.235; the compliance stack test report or monitor certification report required by §117.235; and the use of any compliance flexibility in accordance with §117.9800. The report must also list all units with a claimed exemption from the emission specification of §117.205 and the specific rule citation claimed as the basis for any that exemption. The adoption requires the report to be submitted to the Office of Compliance and Enforcement, the appropriate regional office, and the Office of Air by the applicable date specified for control plans in §117.9010. The adoption also specifies that for any unit that becomes subject to §117.205 after the applicable date specified in §117.9010, the report must be submitted to the Office of Compliance and Enforcement, the appropriate

regional office, and the Office of Air no later than 60 days after becoming subject. The adoption specifies that if any of the information changes in a control plan report submitted in accordance with the section, including the installation of functionally identical replacement units, the control plan must be updated no later than 60 days after the change occurs. Written or electronic records of the updated control plan 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.

### **Division 3, Houston-Galveston-Brazoria Ozone Nonattainment Area Major Sources**

The adopted rulemaking amends §117.310(c)(2) to specify that for diesel engines that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control, ammonia emissions must not exceed 10 ppmv at 15% O<sub>2</sub>, dry instead of 3% O<sub>2</sub>, dry, as currently in effect. The existing rules require that ammonia emissions must not exceed 10 parts per million at 3.0% O<sub>2</sub>, dry, for certain units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control. Correcting ammonia concentrations to the 3.0% O<sub>2</sub> level currently required is inappropriate for diesel engines that operate at significantly higher excess air in the exhaust stream. The adopted rule change to allow diesel engines to use the 15% O<sub>2</sub> correction consistent with the Chapter 117 standards for other equipment that also operates with higher O<sub>2</sub> in the exhaust gas.

The adoption also amends §117.340(c)(2) to add adopted new subparagraph (C) to specify that CEMS and PEMS are not required to be installed on stationary diesel engines equipped with SCR systems using a reductant other than the engine's fuel with a diagnostic system that monitors reductant quality and tank levels and alerts operators to the need to refill the reductant tank before it is empty, or to replace the reductant if it does not meet applicable concentration specifications. The adoption states that if the SCR uses input from an exhaust NO<sub>x</sub> sensor (or

other sensor) to alert operators when reductant quality is inadequate, reductant quality does not need to be monitored separately. The adoption also requires the reductant tank level to be monitored in accordance with the manufacturer's design to demonstrate compliance. The existing Chapter 117 requirement to monitor exhaust NO<sub>x</sub> concentrations using CEMS or PEMS on units using a chemical reagent to reduce NO<sub>x</sub> was included in the rule to ensure compliance with the applicable NO<sub>x</sub> standards for units that rely on reagent-based emissions control systems that can be adjusted by the operator. Manufacturer-certified Tier 4 engines are designed to meet certain federal NO<sub>x</sub> emissions limits and, as such, include SCR systems designed to monitor several parameters over which the operator has no control. The engines are intended to be tamper-resistant and not subject to alteration. Tier 4 engines are not manufactured with pre-installed CEMS because these inherent design standards ensure NO<sub>x</sub> emissions conform to the Tier 4 standards. Given that the control system cannot be manipulated and considering the significant cost of installing and operating a CEMS, a CEMS or PEMS is not necessary to provide reasonable assurance of compliance with the NO<sub>x</sub> emission standards. At proposal, the commission requested comment on any changes that need to be made to the language to ensure it applies to all of the engines intended to be covered by this exemption. No comments were received.

The adoption will also amend §117.340(d) to exempt these engines from the ammonia monitoring requirement in this subsection. It is not necessary to install CEMS or PEMS or monitor ammonia emissions from these engines since these engines are intended to be tamper resistant and not subject to alteration.

#### **Division 4, Dallas-Fort Worth Ozone Nonattainment Area Major Sources**

The adopted rulemaking amends §117.410(c)(2) to specify that for diesel engines that inject



urea or ammonia into the exhaust stream for NO<sub>x</sub> control, ammonia emissions must not exceed 10 ppmv at 15% O<sub>2</sub>, dry instead of 3% O<sub>2</sub>, dry. The existing rules require that ammonia emissions must not exceed 10 parts per million at 3.0% O<sub>2</sub>, dry, for certain units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control. However, correcting ammonia concentrations to the 3.0% O<sub>2</sub> level currently required is inappropriate for diesel engines that operate at significantly higher excess air in the exhaust stream. The adopted rule change to allow diesel engines to use the 15% O<sub>2</sub> correction consistent with the Chapter 117 standards for other equipment that also operates with higher O<sub>2</sub> in the exhaust gas.

The adoption also amends §117.440(c)(2) to include the existing reference to NO<sub>x</sub> CEMS requirements of 40 CFR Part 75 as new subparagraph (A) and add adopted new subparagraph (B) to specify that CEMS and PEMS are not required to be installed on stationary diesel engines equipped with SCR systems using a reductant other than the engine's fuel with a diagnostic system that monitors reductant quality and tank levels and alerts operators to the need to refill the reductant tank before it is empty, or to replace the reductant if it does not meet applicable concentration specifications. The adoption states that if the SCR uses input from an exhaust NO<sub>x</sub> sensor (or other sensor) to alert operators when reductant quality is inadequate, reductant quality does not need to be monitored separately. The adoption also requires the reductant tank level to be monitored in accordance with the manufacturer's design to demonstrate compliance. The existing Chapter 117 requirement to monitor exhaust NO<sub>x</sub> concentrations using CEMS or PEMS on units using a chemical reagent to reduce NO<sub>x</sub> was included in the rule to ensure compliance with the applicable NO<sub>x</sub> standards for units that rely on reagent-based emissions control systems that can be adjusted by the operator. Manufacturer-certified Tier 4 engines are designed to meet certain federal NO<sub>x</sub> emissions limits and, as such, include SCR systems designed to monitor several parameters over which the operator has no control. The

engines are intended to be tamper-resistant and not subject to alteration. Tier 4 engines are not manufactured with pre-installed CEMS because these inherent design standards ensure NO<sub>x</sub> emissions conform to the Tier 4 standards. Given that the control system cannot be manipulated and considering the significant cost of installing and operating a CEMS, a CEMS or PEMS is not necessary to provide reasonable assurance of compliance with the NO<sub>x</sub> emission standards. At proposal, the commission requested comment on any changes that need to be made to the language to ensure it applies to all the engines intended to be covered by this exemption. No comments were received.

The adoption will also amend §117.440(d) to exempt these engines from the ammonia monitoring requirement in this subsection. It is not necessary to install CEMS or PEMS or monitor ammonia emissions from these engines since these engines are intended to be tamper resistant and not subject to alteration.

### **Subchapter C, Combustion Control at Major Utility Electric Generation Sources in Ozone Nonattainment Areas**

#### **Division 2, Bexar County Ozone Nonattainment Area Utility Electric Generation Sources**

Adopted new §117.1100 specifies the rule applicability for the division. The adopted new 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 in Bexar County. The adopted rule states that this division is applicable for the life of each affected unit in an electric power generating system or until this division or sections of this title that are applicable to an affected unit are rescinded.

Adopted new §117.1103 lists the units that are exempt from this division, except the

monitoring, recordkeeping and reporting requirements that are necessary to document that the unit meets the exemption criteria. The adopted exemption applies to (1) any utility boiler or auxiliary steam boiler with an annual heat input less than or equal to 220,000 MMBtu per year; (2) any stationary gas turbines that operate less than 850 hours per year, based on a rolling 12-month basis; and (3) any stationary gas turbines that are used solely to power other gas turbines or engines during startups.

Adopted new §117.1105 contains the emission specifications RACT that sources must comply with in accordance with the applicable schedule in adopted new §117.9110. The emission specifications were determined to be both technologically and economically feasible. The emission rates are consistent with EPA-approved RACT limits for similar sources in the other nonattainment areas in the state and permit limits for this type of unit. The adopted new subsection (a)(1) limits NO<sub>x</sub> emissions from stationary gas turbines, including duct burners used in turbine exhaust ducts, to 0.032 lb/MMBtu heat input on a rolling 30-day average basis. The adopted new subsection (a)(2) limits NO<sub>x</sub> emissions from utility boilers or auxiliary steam boilers, while firing natural gas or a combination of natural gas and oil, to 0.2 lb/MMBtu heat input on a rolling 30-day average basis. The adopted new subsection (a)(3) limits NO<sub>x</sub> emissions from utility boilers or auxiliary steam boilers controlled with SCR, while firing coal, to 0.069 lb/MMBtu heat input on a rolling 30-day average basis. The adopted new subsection (a)(4) limits NO<sub>x</sub> emissions from utility boilers or auxiliary steam boilers not controlled with SCR, while firing coal, to 0.20 lb/MMBtu heat input on a rolling 30-day average basis. The adopted new subsection (a)(5) limits NO<sub>x</sub> emissions from utility boilers or auxiliary steam boilers, while firing oil only to 0.30 lb/MMBtu heat input on an hourly basis. Compliance with adopted emission specifications on a rolling 30-day average beginning on January 1, 2025, will be based on CEMS or PEMS data from the previous 30 operating days. The adopted new subsection (b) provides

compliance flexibility by including options for sources to meet a system cap or use emission credits to comply with the NO<sub>x</sub> emission specifications of this section.

The adoption adds new §117.1120 to add a system cap option for affected sources. The adopted new subsection (a) allows an owner or operator of an electric generating facility (EGF) to achieve compliance with the NO<sub>x</sub> emission specifications in §117.1105 by achieving equivalent NO<sub>x</sub> emission reductions obtained by compliance with a 30-day system cap emission limitation in accordance with the requirements of this section. Adopted new subsection (b) requires each EGF within an electric power generating system that started operation before January 1, 2025 (the adopted compliance date for this division), and is subject to §117.1105, to be included in the system cap. Adopted new subsection (c) provides an equation to calculate the rolling 30-day system cap. The 30-day rolling average NO<sub>x</sub> emission cap in pounds per day is the product of the applicable emission specification in §117.1105 for each EGF times the average of the daily heat input for each EGF in the emission cap in MMBtu per day for any system 30-day period in 2019, 2020, 2021, 2022, or 2023 (the same 30-day period must be used for all EGFs in the emission cap). This value is then summed for all EGFs in the electric power generating system. Adopted new subsection (d) indicates that compliance with the system cap must be demonstrated in accordance with the requirements in adopted new §117.1140. Adopted new subsection (e) indicates that records, including semiannual reports for the monitoring systems, must be retained in accordance with adopted new §117.1145. Adopted new subsection (f) is revised in response to comments received on the proposal. The adopted rule requires the owner or operator to report any exceedance of the system cap emission limit to the appropriate regional office within three calendar days instead of the proposed 48 hours. Adopted new subsection (f) is also revised to require the owner or operator to then follow up no later than 60 calendar days after the exceedance, instead of the proposed 21 days, with a

written report to the regional office that includes an analysis of the cause for the exceedance with appropriate data to demonstrate the amount of emissions in excess of the system cap and the necessary corrective actions taken by the company to assure future compliance.

Additionally, the owner or operator shall submit semiannual reports for the monitoring systems in accordance with §117.1145 of this title. Adopted new subsection (g) requires sources to comply with the system cap in accordance with the schedule specified in adopted new §117.9110. Adopted new subsection (h) allows an EGF that is permanently retired or decommissioned and rendered inoperable to continue to be included in the system cap emission limit provided that the permanent shutdown occurred on or after the January 1, 2025 compliance date for this division. Adopted new subsection (i) prohibits emission reductions from shutdowns or curtailments that have been used for netting or offset purposes for an air permit issued under 30 TAC Chapter 116 from being included in the in the calculation of the system cap. Adopted new subsection (j) indicates that for the purposes of determining compliance with the system cap, the contribution of each affected EGF that is operating during a startup, shutdown, or emissions event must be calculated from the NO<sub>x</sub> emission rate measured by the NO<sub>x</sub> monitor, if the monitor is operating properly, or if the NO<sub>x</sub> monitor is not operating properly, the substitute data procedures identified in §117.1140 must be used. Adopted new subsection (k) allows emission credits may be used in accordance with the requirements of §117.9800 to exceed the system cap.

The adoption adds new §117.1140 to specify the requirements for demonstrating compliance with the adopted new emission limits. Adopted new subsection (a) requires owners or operators to install, calibrate, maintain, and operate a CEMS or PEMS to measure NO<sub>x</sub> on an individual basis for all units subject to the adopted new emission specifications in §117.1105. The adoption requires each CEMS or PEMS to comply with the relative accuracy test audit relative

accuracy (RATA) requirements of 40 CFR Part 75, Appendix B, Figure 2, except the concentration options (parts per million by volume (ppmv) and lb/MMBtu) do not apply. The adoption also requires each CEMS or PEMS to 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. The adoption requires CEMS or PEMS to comply with the emission monitoring system requirements of §117.8110. The adoption requires PEMS to predict NO<sub>x</sub> emissions in the units of the applicable emission limitations and requires that data and fuel flow meters to be used to demonstrate continuous compliance. Adopted new subsection (b) provides acid rain peaking units the option to monitor operating parameters for each unit in accordance with 40 CFR Part 75, Appendix E, and calculate NO<sub>x</sub> emission rates based on those procedures instead of using a CEMS or PEMS.

Adopted new §117.1140(c) also requires units subject to the adopted new emission specifications in §117.1105 and units claiming exemption under adopted new §117.1103(1) to use totalizing fuel flow meters to individually and continuously measure the gas and liquid fuel usage unless the owner or operator opts to assume fuel consumption at maximum design fuel flow rates during hours of the unit's operation. The adoption indicates that a computer that collects, sums, and stores electronic data from continuous fuel flow meters is an acceptable totalizer. Adopted new subsection (d) requires that a unit using the adopted exemption in §117.1103(2) record the operating time hours with an elapsed run time meter. Adopted new subsection (e) requires the owner or operator of any unit using the adopted new exemptions in §117.1103(1) or (2) to notify the executive director within seven days if the applicable limit is exceeded and to submit a plan for review and approval within 90 days after loss of the exemption that details the schedule to meet the applicable limit no later than 24 months after the exceedance. The adoption indicates that if the limit is exceeded, the exemption from the

emission specifications of this division is permanently withdrawn.

Adopted new §117.1140(f) requires the methods in this section to be used to demonstrate compliance with the adopted new emission specifications of §117.1105 and the adopted new system cap in §117.1120. The adoption allows the executive director to use other commission compliance methods to determine compliance with applicable emission specifications for enforcement purposes. The adoption explains that for units complying with the NO<sub>x</sub> emission specifications of §117.1105 in lb/MMBtu on a rolling 30-day average basis, the rolling 30-day average is calculated for each day that fuel was combusted in the unit and is the total pounds of NO<sub>x</sub> emissions from the unit for the preceding 30 days that fuel was combusted in the unit divided by the total heat input (in MMBtu) for the unit during the same 30-day period. In response to comments, the adopted subsection (f)(2) has been revised to clarify that for any EGF complying with the system cap requirements in §117.1120 in pounds per day on a rolling 30-day average basis, the rolling 30-day average is calculated for each day and is the average of the total pounds of NO<sub>x</sub> emissions per day from all EGFs included in the system cap for the preceding 30 days. Adopted new subsection (g) requires the missing data procedures specified in 40 CFR Part 75, Subpart D to be used to provide substitute emissions compliance data during periods when the NO<sub>x</sub> monitor is off-line except that a peaking unit may use the missing data procedures specified in 40 CFR Part 75, Appendix E, §2.5 and a PEMS for units not subject to the requirements of 40 CFR Part 75 may use calculations in accordance with §117.8110(b). At proposal, the commission requested comment on any additional data substitution procedures that may be appropriate. No comments were received.

Adopted new §117.1145 adds notification, recordkeeping, and reporting requirements.

Adopted new subsection (a) requires written notification of any CEMS or PEMS RATA conducted

under §117.1140 to be submitted at least 15 days prior to such date and (b) requires a copy of the results of any CEMS or PEMS RATA conducted under §117.1140 to be submitted within 60 days after completion of such testing or evaluation. Adopted new subsection (c) requires units subject to the startup and/or shutdown provisions of §101.222, to maintain hourly records of startup and/or shutdown events (including but not limited to the type of fuel burned; quantity of each type of fuel burned; gross and net energy production in megawatt-hours; and the date, time, and duration of the event) for a period of at least two years. The adopted rule specifies that the records must be available for inspection upon request by the executive director, EPA, and any local air pollution control agency having jurisdiction.

Adopted new §117.1145(d) requires the owner or operator of a unit required to install a CEMS or PEMS under adopted new §117.1140 to report in writing to the executive director on a semiannual basis any exceedance of the applicable emission limitations in this division and the monitoring system performance. All reports must be postmarked or received by the 30th day following the end of each calendar semiannual period (i.e., July 30 and January 30). The adoption requires the reports to include (1) the magnitude of excess emissions computed in accordance with 40 CFR §60.13(h), any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the unit operating time during the reporting period; (2) specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected unit, the nature and cause of any malfunction (if known) and the corrective action taken or preventative measures adopted; and (3) the date and time identifying each period when the continuous monitoring system was inoperative, except for zero and span checks and the nature of the system repairs or adjustments. The adoption indicates that when no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such



information must be stated in the report. The adoption specifies that only a summary report form (as outlined in the latest edition of the commission's Guidance for Preparation of Summary, Excess Emission, and Continuous Monitoring System Reports) is required if the total duration of excess emissions for the reporting period is less than 1.0% of the total unit operating time for the reporting period and the CEMS or PEMS monitoring system downtime for the reporting period is less than 5.0% of the total unit operating time for the reporting period (unless otherwise requested by the executive director). The adoption requires both a summary report and an excess emission report to be submitted if the total duration of excess emissions for the reporting period is greater than or equal to 1.0% of the total unit operating time for the reporting period or the CEMS or PEMS downtime for the reporting period is greater than or equal to 5.0% of the total unit operating time for the reporting period.

Adopted new §117.1145(e) lists the required records, which must be kept for 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. adopted new paragraph (1) requires the owner or operator of a unit complying with the NO<sub>x</sub> emission specifications in §117.1105(a)(1) - (4) to maintain daily records indicating the NO<sub>x</sub> emissions in lb; the quantity and type of each fuel burned; the heat input in MMBtu; and the rolling 30-day average NO<sub>x</sub> emission rate in lb/MMBtu. Adopted new paragraph (2) requires the owner or operator of a unit complying with the NO<sub>x</sub> emission specification in §117.1105(a)(5) to maintain hourly records indicating the NO<sub>x</sub> emissions in lb; the quantity and type of each fuel burned; and the heat input in MMBtu. Adopted new paragraph (3) requires the owner or operator complying with the NO<sub>x</sub> emission system cap in §117.1120 to maintain daily records for each EGF in the cap indicating the NO<sub>x</sub> emissions in lb; the quantity and type of each fuel burned; and the heat input in MMBtu. In addition, the owner or operator shall maintain daily records indicating the

total NO<sub>x</sub> emissions in lb from all EGFs under the system cap and the rolling 30-day average NO<sub>x</sub> emissions rate (in lb/day) for all EGFs under the system cap. Adopted new paragraph (4) requires the owner or operator of a unit using the exemption in §117.1103(1) to maintain monthly records indicating the quantity and type of each fuel burned, the heat input in MMBtu; and the rolling 12-month average heat input in MMBtu. Adopted new paragraph (5) requires the owner or operator of a unit the exemption in §117.1103(2) to maintain monthly records indicating the operating hours and the rolling 12-month average operating hours. Adopted new paragraph (6) requires the owner or operator to maintain records of records of the results of testing, evaluations, calibrations, checks, adjustments, and maintenance of a CEMS or PEMS.

Adopted new §117.1152 contains the control plan procedures for RACT. Adopted new subsection (a) requires the owner or operator of any unit subject to §117.1105 to submit a control plan report to show compliance with the requirements of §117.1105. The report must include: (1) the rule section used to demonstrate compliance, either §117.1105, §117.1120, or §117.9800; (2) the specific rule citation for any unit with a claimed exemption under §117.1105; (3) for each affected unit: the method of NO<sub>x</sub> control, the method of monitoring emissions, and the method of providing substitute emissions data when the NO<sub>x</sub> monitoring system is not providing valid data; and (4) for sources complying with §117.1120, detailed calculation of the system cap that includes all data relied on for each electric generating facility included in the system cap equation in §117.1120(c). Adopted new subsection (b) requires the report to be submitted to the Office of Compliance and Enforcement, the appropriate regional office, and the Office of Air by the applicable date specified for control plans in §117.9110. Adopted new subsection (c) specifies that for any unit that becomes subject to §117.1105 after the applicable date for control plans in §117.9110, the control plan must be submitted to the Office of Compliance and Enforcement, the appropriate regional office, and the Office of Air no later

than 60 days after becoming subject. Adopted new subsection (d) requires that if any of the information changes in a control plan report submitted in accordance with subsection (b) or (c), including the installation of functionally identical replacements, the control plan must be updated no later than 60 days after the change occurs. Written or electronic records of the updated control plan 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.

#### **Subchapter D, Combustion Control at Minor Sources in Ozone Nonattainment Areas**

##### **Division 1, Houston-Galveston-Brazoria Ozone Nonattainment Area Minor Sources**

The adopted rulemaking amends §117.2010(i)(2) to specify that for diesel engines that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control, ammonia emissions must not exceed 10 ppmv at 15% O<sub>2</sub>, dry instead of 3% O<sub>2</sub>, dry. The existing rules require that ammonia emissions must not exceed 10 parts per million at 3.0% O<sub>2</sub>, dry, for certain units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control. However, correcting ammonia concentrations to the 3.0% O<sub>2</sub> level currently required is inappropriate for diesel engines that operate at significantly higher excess air in the exhaust stream. The adopted rule change to allow diesel engines to use the 15% O<sub>2</sub> correction is consistent with the Chapter 117 standards for other equipment that also operate with higher O<sub>2</sub> in the exhaust gas.

The adoption will amend §117.2035(e)(2) to specify that the ammonia monitoring requirements in this paragraph do not apply to stationary diesel engines equipped with selective catalytic reduction systems that meet the following criteria. The SCR system must use a reductant other than the engine's fuel and operate with a diagnostic system that monitors reductant quality and tank levels. The diagnostic system must alert owners or operators to the need to refill the

reductant tank before it is empty or to replace the reductant if the reductant does not meet applicable concentration specifications. If the SCR system uses input from an exhaust NO<sub>x</sub> sensor (or other sensor) to alert owners or operators when the reductant quality is inadequate, the reductant quality does not need to be monitored separately by the diagnostic system. The reductant tank level must be monitored in accordance with the manufacturer's design to demonstrate compliance with this subparagraph. The method of alerting an owner or operator must be a visual or audible alarm.

#### **Division 2, Dallas-Fort Worth Eight Hour Ozone Nonattainment Area Minor Sources**

The adopted rulemaking amends §117.2110(h)(2) to specify that for diesel engines that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control, ammonia emissions must not exceed 10 ppmv at 15% O<sub>2</sub>, dry instead of 3% O<sub>2</sub>, dry. The existing rules require that ammonia emissions must not exceed 10 parts per million at 3.0% O<sub>2</sub>, dry, for certain units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control. However, correcting ammonia concentrations to the 3.0% O<sub>2</sub> level currently required is inappropriate for diesel engines that operate at significantly higher excess air in the exhaust stream. The adopted rule change to allow diesel engines to use the 15% O<sub>2</sub> correction is consistent with the Chapter 117 standards for other equipment that also operate with higher O<sub>2</sub> in the exhaust gas.

The adoption will amend §117.2135(d)(2) to specify that the ammonia monitoring requirements in paragraph (2) do not apply to stationary diesel engines equipped with selective catalytic reduction systems that meet all of the criteria specified in adopted new subparagraphs (A) – (F). The SCR system must use a reductant other than the engine's fuel and operate with a diagnostic system that monitors reductant quality and tank levels. The diagnostic system must alert owners or operators to the need to refill the reductant tank before it is empty or to replace the

reductant if the reductant does not meet applicable concentration specifications. If the SCR system uses input from an exhaust NO<sub>x</sub> sensor (or other sensor) to alert owners or operators when the reductant quality is inadequate, the reductant quality does not need to be monitored separately by the diagnostic system. The reductant tank level must be monitored in all cases in accordance with the manufacturer's design to demonstrate compliance with this subparagraph. The method of alerting an owner or operator must be a visual or audible alarm.

### **Subchapter E, Multi-Region Combustion Control**

#### **Division 1, Utility Electric Generation in East and Central Texas**

The adopted rule amends the applicability in §117.3000 to specify that this division no longer applies in Bexar County after December 31, 2024. This change ensures that units in Bexar County will remain in compliance with the existing rule until they are required to comply with the adopted new rules for EGUs in Subchapter C, Division 2.

#### **Division 2, Cement Kilns**

The adopted rule amends §117.3103 for portland cement kilns exempted from the provisions of this division, to include any portland cement kiln placed into service on or after December 31, 1999, except as specified in adopted new Bexar County RACT requirements in §117.3124. The adopted amendments also state that after the compliance date specified in §117.9320(c), portland cement kilns that are subject to §117.3124 are exempt from §117.3110 and §117.3120 of this title. These adopted changes are necessary to ensure that cement kilns in Bexar County will remain in compliance with the existing rule until they are required to comply with the adopted new RACT requirements in §117.3124.

The adopted rulemaking adds language to the emission specification in §117.3110 and the

source cap requirements in §117.3120 to state that these sections no longer apply in Bexar County after December 31, 2024. These adopted changes are necessary to ensure that cement kilns in Bexar County are subject to these rules only until they are required to comply with the adopted new RACT requirements in §117.3124.

Adopted new §117.3124 lists the Bexar County control requirements for RACT.

The adopted rule limits NO<sub>x</sub> emissions from each preheater-precalciner or precalciner kiln in Bexar County to 2.8 pounds per ton (lb/ton) of clinker produced on a 30-day rolling average beginning on the compliance date specified in §117.9320. This adopted limit is consistent with limits for this type of kiln in other state and federal rules. For one of the two affected kilns, this limit represents an approximate 40% reduction from the average NO<sub>x</sub> emissions from 2017-2022. The other affected kiln is currently operating below this rate and at proposal, the commission requested comments on the technological and economic feasibility of the existing kiln located at Capital Cement to meet a limit of 1.95 lb/ton of clinker produced on a 30-day rolling average during both normal conditions and during maintenance, startup, and shutdown. No comments were received. The adopted new section clarifies that for the purposes of this section, the 30-day rolling average is an average, calculated for each day that fuel was combusted in the cement kiln, as the total of all the hourly emissions data (in pounds) for the preceding 30 days that fuel was combusted in the cement kiln, divided by the total number of tons of clinker produced in that kiln during the same 30-day period. The adopted rule also states that an owner or operator may use emission credits in accordance with §117.9800 to meet the NO<sub>x</sub> emission control requirements of this section, in whole or in part.

The adopted rule amends the notification, recordkeeping, and reporting requirements in §117.3145 to require monitoring records for kilns subject to §117.3124 to include the hourly,

daily, and rolling 30-day average NO<sub>x</sub> emissions (in pounds); the hourly, daily, and rolling 30-day average production of clinker (in United States short tons); and the rolling 30-day average NO<sub>x</sub> emission rate (in lb/ton of clinker produced). These records are necessary to demonstrate compliance with the adopted new RACT requirements for kilns in Bexar County.

## **Subchapter H, Administrative Provisions**

### **Division 1, Compliance Schedules**

The adoption adds new §117.9010 to include the compliance schedule for Bexar County ozone nonattainment area major sources. The adoption requires the owner or operator of any stationary source of NO<sub>x</sub> in Bexar County that is a major source of NO<sub>x</sub> and is subject to the requirements of Subchapter B, Division 2 to comply with the requirements of that division as soon as practicable, but no later than January 1, 2025. The adoption also requires the owner or operator of any stationary source of NO<sub>x</sub> that becomes subject to the requirements of Subchapter B, Division 2 on or after January 1, 2025 to comply with the requirements of the division as soon as practicable, but no later than 60 days after becoming subject.

The adoption amends the compliance schedule for DFW area major sources in §117.9030 to add that for units subject to the emission specifications of §117.405(b) located at sources in Wise County that emit or have the potential to emit equal to or greater than 25 tpy but less than 50 tpy of NO<sub>x</sub>, submission of the initial control plan required by §117.450(b) is required no later than May 7, 2025; and compliance with all other requirements of Subchapter B, Division 4 is required as soon as practicable, but no later than November 7, 2025. The adoption adds requirements for the owner or operator of any unit that is subject to the emission specifications in §117.410(a) located in the DFW area that emits or has the potential to emit equal to or greater than 25 tpy but less than 50 tpy of NO<sub>x</sub> to submit the initial control plan

required by §117.450(b) no later than May 7, 2025; and comply with all other requirements of Subchapter B, Division 4 as soon as practicable, but no later than November 7, 2025. The adoption also states that the owner or operator of any stationary source of NO<sub>x</sub> that becomes subject to the emission specifications in §117.410(a) on or after the applicable compliance date specified in paragraph (2) must comply with the requirements of Subchapter B, Division 4 as soon as practicable, but no later than 60 days after becoming subject.

The adoption adds new §117.9110 to include the compliance schedule for Bexar County ozone nonattainment area utility electric generation sources. The adoption requires the owner or operator of each electric utility in Bexar County to comply with the requirements of Subchapter C, Division 2 as soon as practicable, but no later than January 1, 2025. The adoption also requires the owner or operator of any electric utility that becomes subject to the requirements of Subchapter C, Division 2 on or after January 1, 2025, to comply with the requirements of that division as soon as practicable, but no later than 60 days after becoming subject.

The adoption amends §117.9300 to specify that beginning January 1, 2025, sources in Bexar County are no longer required to comply with the requirements of Subchapter E, Division 1. This change ensures that sources must comply with these requirements only until compliance with the adopted new RACT rules in Subchapter C, Division 2 is required.

The adoption amends §117.9320 to require the owner or operator of each portland cement kiln in Bexar County to comply with the requirements of §117.3124 and the applicable requirements of §117.3145 as soon as practicable, but no later than January 1, 2025.



### **Division 2, Compliance Flexibility**

The adoption amends §117.9800 to allow for the use of emission credits for compliance with the adopted new Bexar County RACT requirements in §§117.205, 117.1105, 117.1120, and 117.3124. The adoption also specifies that for units using reduction credits in accordance with this section that are subject to new, more stringent rule limitations, the owner or operator using the reduction credits must submit a revised final control plan to the executive director in accordance with §117.1152. These requirements are the same as the EPA-approved options provided for other nonattainment areas in the state.

### **Final Regulatory Impact Determination**

The commission reviewed the adopted rulemaking in light of the regulatory impact analysis requirements of Texas Government Code, §2001.0225, and determined that the adopted rulemaking does not meet the definition of a major environmental rule as defined in that statute, and in addition, if it did meet the definition, will not be subject to the requirement to prepare a regulatory impact analysis. A major environmental rule means a rule, the specific intent of which is to protect the environment or reduce risks to human health from environmental exposure, and that may adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state. Additionally, the adopted rulemaking does not meet any of the four applicability criteria for requiring a regulatory impact analysis for a major environmental rule, which are listed in Tex. Gov't Code Ann., §2001.0225(a). Section 2001.0225 of the Texas Government Code applies only to a major environmental rule, the result of which is to: 1) exceed a standard set by federal law, unless the rule is specifically required by state law; 2) exceed an express requirement of state law, unless the rule is specifically required by federal law; 3) exceed a requirement of a delegation agreement or contract between the state

and an agency or representative of the federal government to implement a state and federal program; or 4) adopt a rule solely under the general powers of the agency instead of under a specific state law.

The specific intent of these adopted rules is to comply with federal requirements for the implementation of control strategies necessary to attain and maintain the NAAQS for ozone mandated by 42 USC, 7410, FCAA, §110, and required to be included in operating permits by 42 USC, §7661a, FCAA, §502, as specified elsewhere in this preamble. The adopted rule addresses RACT requirements for the Bexar County 2015 eight-hour ozone nonattainment area and the DFW 2008 eight-hour ozone nonattainment area as well as revisions to existing rules to remove specific monitoring requirements and adjust ammonia emission limits for certain engines as discussed elsewhere in this preamble. States are required to adopt SIPs with enforceable emission limitations and other control measures, means, or techniques, as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of the FCAA. As discussed in the FISCAL NOTE portion of this preamble, the adopted rules are not anticipated to add any significant additional costs to affected individuals or businesses beyond what is necessary to attain the ozone NAAQS on the economy, a sector of the economy, productivity, competition, jobs, the environment, or the public health and safety of the state or a sector of the state.

If a state does not comply with its obligations under 42 USC, §7410, FCAA, §110 to submit SIPs, states are subject to discretionary sanctions under 42 USC, §7410(m) or mandatory sanctions under 42 USC, §7509, FCAA, §179; as well as the imposition of a federal implementation plan (FIP) under 42 USC, §7410, FCAA, §110(c). Under 42 USC, §7661a, FCAA, §502, states are required to have federal operating permit programs that provide authority to issue permits and

assure compliance with each applicable standard, regulation, or requirement under the FCAA, including enforceable emission limitations and other control measures, means, or techniques, which are required under 42 USC, §7410, FCAA, §110. Similar to requirements in 42 USC, §7410, FCAA, §110, states are not free to ignore requirements in 42 USC, §7661a, FCAA, §502 and must develop and submit programs to provide for operating permits for major sources that include all applicable requirements of the FCAA. Lastly, states are also subject to the imposition of sanctions under 42 USC, §7661a(d) and (i), FCAA, §502(d) and (i) for failure to submit an operating permits program, the disapproval of any operating permits program, or failure to adequately administer and enforce the approved operating permits program.

The requirement to provide a fiscal analysis of regulations in the Texas Government Code was amended by Senate Bill (SB) 633 during the 75th legislative session in 1997. The intent of SB 633 was to require agencies to conduct a regulatory impact analysis of extraordinary rules. These are identified in the statutory language as major environmental rules that will have a material adverse impact and will exceed a requirement of state law, federal law, or a delegated federal program, or are adopted solely under the general powers of the agency. With the understanding that this requirement will seldom apply, the commission provided a cost estimate for SB 633 that concluded "based on an assessment of rules adopted by the agency in the past, it is not anticipated that the bill will have significant fiscal implications for the agency due to its limited application." The commission also noted that the number of rules that will require assessment under the provisions of the bill was not large. This conclusion was based, in part, on the criteria set forth in the bill that exempted rules from the full analysis unless the rule was a major environmental rule that exceeds a federal law. Because of the ongoing need to meet federal requirements, the commission routinely proposes and adopts rules incorporating or designed to satisfy specific federal requirements. The legislature is presumed to understand

this federal scheme. If each rule proposed by the commission to meet a federal requirement was considered to be a major environmental rule that exceeds federal law, then each of those rules would require the full regulatory impact analysis (RIA) contemplated by SB 633. Requiring a full RIA for all federally required rules is inconsistent with the conclusions reached by the commission in its cost estimate and by the Legislative Budget Board (LBB) in its fiscal notes. Since the legislature is presumed to understand the fiscal impacts of the bills it passes, and that presumption is based on information provided by state agencies and the LBB, the that the intent of SB 633 was only to require the full RIA for rules that are extraordinary in nature. While the adopted rules may have a broad impact, that impact is no greater than is necessary or appropriate to meet the requirements of the FCAA, and in fact creates no additional impacts since the adopted rules do not impose burdens greater than required to demonstrate attainment of the ozone NAAQS as discussed elsewhere in this preamble. For these reasons, the adopted rules fall under the exception in Texas Government Code, §2001.0225(a), because they are required by, and do not exceed, federal law.

The commission has consistently applied this construction to its rules since this statute was enacted in 1997. Since that time, the legislature has revised the Texas Government Code, but left this provision substantially unamended. It is presumed that "when an agency interpretation is in effect at the time the legislature amends the laws without making substantial change in the statute, the legislature is deemed to have accepted the agency's interpretation." (*Central Power & Light Co. v. Sharp*, 919 S.W.2d 485, 489 (Tex. App. Austin 1995), *writ denied with per curiam opinion respecting another issue*, 960 S.W.2d 617 (Tex. 1997); *Bullock v. Marathon Oil Co.*, 798 S.W.2d 353, 357 (Tex. App. Austin 1990, no writ). *Cf. Humble Oil & Refining Co. v. Calvert*, 414 S.W.2d 172 (Tex. 1967); *Dudney v. State Farm Mut. Auto Ins. Co.*, 9 S.W.3d 884, 893 (Tex. App. Austin 2000); *Southwestern Life Ins. Co. v. Montemayor*, 24 S.W.3d 581 (Tex. App.

*Austin 2000, pet. denied*); and *Coastal Indust. Water Auth. v. Trinity Portland Cement Div.*, 563 S.W.2d 916 (Tex. 1978).) The commission's interpretation of the RIA requirements is also supported by a change made to the Texas Administrative Procedure Act (APA) by the legislature in 1999. In an attempt to limit the number of rule challenges based upon APA requirements, the legislature clarified that state agencies are required to meet these sections of the APA against the standard of "substantial compliance" (Texas Government Code, §2001.035). The legislature specifically identified Texas Government Code, §2001.0225 as falling under this standard.

As discussed in this analysis and elsewhere in this preamble, the commission has substantially complied with the requirements of Texas Government Code, §2001.0225. The adopted rules implement the requirements of the FCAA as discussed in this analysis and elsewhere in this preamble. The adopted rules were determined to be necessary to attain the ozone NAAQS and are required to be included in permits under 42 USC, §7661a, FCAA, §502, and will not exceed any standard set by state or federal law. These adopted rules are not an express requirement of state law. The adopted rules do not exceed a requirement of a delegation agreement or a contract between state and federal government, as the adopted rules, if adopted by the commission and approved by EPA, will become federal law as part of the approved SIP required by 42 U.S.C. §7410, FCAA, §110. The adopted rules were not developed solely under the general powers of the agency but are authorized by specific sections of Texas Health and Safety Code, Chapter 382 (also known as the Texas Clean Air Act), and the Texas Water Code, which are cited in the STATUTORY AUTHORITY section of this preamble, including Texas Health and Safety Code, §§382.011, 382.012, and 382.017. Therefore, this adopted rulemaking action is not subject to the regulatory analysis provisions of Texas Government Code, §2001.0225(b).

The commission invited public comment regarding the Draft Regulatory Impact Analysis

Determination during the public comment period. No comments were received regarding the regulatory impact analysis determination.

### **Takings Impact Assessment**

Under Texas Government Code, §2007.002(5), taking means a governmental action that affects private real property, in whole or in part or temporarily or permanently, in a manner that requires the governmental entity to compensate the private real property owner as provided by the Fifth and Fourteenth Amendments to the United States Constitution or §17 or §19, Article I, Texas Constitution; or a governmental action that affects an owner's private real property that is the subject of the governmental action, in whole or in part or temporarily or permanently, in a manner that restricts or limits the owner's right to the property that would otherwise exist in the absence of the governmental action; and is the producing cause of a reduction of at least 25 percent in the market value of the affected private real property, determined by comparing the market value of the property as if the governmental action is not in effect and the market value of the property determined as if the governmental action is in effect. The commission completed a takings impact analysis for the adopted rulemaking action under the Texas Government Code, §2007.043.

The primary purpose of this adopted rulemaking, as discussed elsewhere in this preamble, is to meet federal requirements for the implementation of control strategies necessary to attain and maintain the NAAQS for ozone mandated by 42 USC, 7410, FCAA, §110, and required to be included in operating permits by 42 USC, §7661a, FCAA, §502. The adopted rule addresses RACT requirements for the Bexar County 2015 eight-hour ozone nonattainment area and the DFW 2008 eight-hour ozone nonattainment area as well as revisions to existing rules to remove specific monitoring requirements and adjust ammonia emission limits for certain engines as

discussed elsewhere in this preamble.

States are required to adopt SIPs with enforceable emission limitations and other control measures, means, or techniques, as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of the FCAA. If a state does not comply with its obligations under 42 USC, §7410, FCAA, §110 to submit SIPs, states are subject to discretionary sanctions under 42 USC, §7410(m) or mandatory sanctions under 42 USC, §7509, FCAA, §179; as well as the imposition of a federal implementation plan (FIP) under 42 USC, §7410, FCAA, §110(c). Under 42 USC, §7661a, FCAA, §502, states are required to have federal operating permit programs that provide authority to issue permits and assure compliance with each applicable standard, regulation, or requirement under the FCAA, including enforceable emission limitations and other control measures, means, or techniques, which are required under 42 USC, §7410, FCAA, §110. Similar to requirements in 42 USC, §7410, FCAA, §110, regarding the requirement to adopt and implement plans to attain and maintain the national ambient air quality standards, states are not free to ignore requirements in 42 USC, §7661a, FCAA, §502 and must develop and submit programs to provide for operating permits for major sources that include all applicable requirements of the FCAA. Lastly, states are also subject to the imposition of sanctions under 42 USC, §7661a(d) and (i), FCAA, §502(d) and (i) for failure to submit an operating permits program, the disapproval of any operating permits program, or failure to adequately administer and enforce the approved operating permits program.

The adopted rules will not create any additional burden on private real property beyond what is required under federal law, as the adopted rules, if adopted by the commission and approved by EPA, will become federal law as part of the approved SIP required by 42 U.S.C. §7410, FCAA,

§110. The adopted rules will not affect private real property in a manner that will require compensation to private real property owners under the United States Constitution or the Texas Constitution. The adoption also will not affect private real property in a manner that restricts or limits an owner's right to the property that will otherwise exist in the absence of the governmental action. Therefore, the adopted rulemaking will not cause a taking under Texas Government Code, Chapter 2007.

#### **Consistency with the Coastal Management Program**

The commission reviewed the adopted rulemaking and found that the adoption is subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act, Texas Natural Resources Code, §§33.201 *et seq.*, and therefore must be consistent with all applicable CMP goals and policies. The commission conducted a consistency determination for the adopted rules in accordance with Coastal Coordination Act Implementation Rules, 31 TAC §505.22 and found the adopted rulemaking is consistent with the applicable CMP goals and policies.

The adopted amendments are consistent with the applicable CMP goal expressed in 31 TAC §501.12(1) of protecting and preserving the quality and values of coastal natural resource areas, and the policy in 31 TAC §501.14(l), which requires that the commission protect air quality in coastal areas. The adopted rulemaking and SIP revision will ensure that the amendments comply with 40 CFR Part 50, National Primary and Secondary Air Quality Standards, and 40 CFR Part 51, Requirements for Preparation, Adoption, and Submittal of Implementation Plans.



The commission invited public comment regarding the consistency with the CMP during the public comment period. No comments were received regarding the CMP.

### **Effect on Sites Subject to the Federal Operating Permits Program**

Chapter 117 is an applicable requirement under 30 TAC Chapter 122, Federal Operating Permits Program. If the adopted revisions to Chapter 117 are adopted, owners or operators subject to the federal operating permit program must, consistent with the revision process in Chapter 122, upon the effective date of the rulemaking, revise their operating permit to include the new Chapter 117 requirements.

### **Public Comment**

The commission held public hearings in Houston on January 4, 2024, and in Arlington on January 11, 2024. The commission offered a public hearing in San Antonio on January 9, 2024. The comment period opened on December 1, 2023, and closed on January 16, 2024. The commission received comments from CPS Energy, EPA, Sierra Club, and Baker Botts LLP, on behalf of the Texas Industry Project (TIP). The comments expressed support for the proposal and provided suggested changes to the rules, including changes to the notification and reporting requirements, changes to the system cap for electric generation sources for shutdown units, and changes to the RACT limits for certain sources.

Any comments received regarding the Bexar County, DFW, and HGB attainment demonstration SIP revisions (Non-Rule Project Nos. 2023-107-SIP-NR, 2023-132-SIP-NR, and 2022-022-SIP-NR, respectively) are addressed in the Response to Comments portions of those attainment demonstration SIP revisions.

## **Response to Comments**

### *Comment*

CPS Energy supported the proposed §117.1105 NO<sub>x</sub> rates in lb/MMBtu and supported the compliance mechanism of a system cap in proposed §117.1120.

### *Response*

**The commission appreciates the support.**

### *Comment*

CPS Energy requested changing the proposed reporting requirement for any exceedance of the system cap emission limit in §117.1120(f) from 48 hours to two business days. CPS Energy stated that its core compliance staff works Mondays through Thursdays on 10-hour shifts. Changing the requirement to two business days ensures those people responsible for reporting have sufficient time to report the exceedance. CPS Energy also requested changing the follow-up reporting time in proposed §117.1120(f) from 21 days to 60 days. CPS Energy stated that it has a very robust root cause analysis program, and 60 days would ensure the reports are properly investigated, developed, and reviewed.

### *Response*

**The commission agrees that the requested changes are reasonable and revised the rule. Adopted §117.1120(f) requires the owner or operator to report any exceedance of the system cap emission limit within three calendar days to the appropriate regional office. This change provides an additional day to accommodate the non-traditional work schedule. If an exceedance occurs on a Friday then the owner or operator is required to provide notice of**

**the exceedance to the regional office by the end of the day Monday. The adopted rule was also revised to require the owner or operator to follow-up no later than 60 calendar days after the exceedance with a written report to the regional office that includes an analysis of the cause for the exceedance with appropriate data to demonstrate the amount of emissions in excess of the system cap and the necessary corrective actions taken by the company to assure future compliance. Since the system cap applies to multiple units located at multiple sites, the commission agrees that additional time may be needed to properly evaluate the cause of the exceedance. However, the commission expects the analysis of the exceedance to be prompt and the results to be provided as soon as practicable.**

*Comment*

CPS Energy commented that 40 CFR Part 75 includes an exemption/waiver to the normal notification required to TCEQ if there are extraneous circumstances. CPS Energy requested that this option be incorporated into proposed §117.1145(a). CPS Energy stated that if it were to have a RATA fail, for example, CPS Energy would like to have the option to conduct another one immediately. Currently, RATA notifications are made ahead of the required time, but if an issue arises (e.g., the unit coming offline), the regional office is immediately notified of any date changes so the TCEQ can observe the test.

*Response*

**The commission would not consider immediate retesting to be a new event that would require separate notification. After providing the initial written notification to the appropriate regional office, the owner or operator may elect to repeat a certification or recertification test immediately (without additional written notification) whenever the owner or operator has determined during the certification or recertification testing that a**

**test was failed or must be stopped, or that a second test is necessary. The commission considers these multiple tests to be part of the same testing event. As mentioned in the comment, the owner or operator should communicate any schedule changes, including delays or extensions, to the TCEQ regional office to ensure TCEQ has the opportunity to observe the testing. In emergency situations, the owner or operator may contact the TCEQ regional office to request a waiver to this notification requirement. No changes have been made in response to this comment.**

*Comment*

CPS Energy recommended revising proposed §117.1140(f)(2) to remove the condition "that fuel was combusted in the unit" from the calculation used to demonstrate compliance with the system cap. CPS Energy suggested that the rule should require a 30-day look back for all units in the CPS Energy generation fleet located in Bexar County regardless of whether they run or have fuel combusted (i.e., count zero values in the 30-day rolling average) to include non-operating days.

*Response*

**TCEQ agrees with the commenters suggested change. The system cap option allows sources to reduce or stop operation in order to meet the applicable limit. Therefore, non-operating days should be included in the compliance demonstration. Adopted §117.1140(f)(2) has been revised to clarify that for any EGF complying with the system cap in §117.1120, the rolling 30-day average is calculated for each day and is the average of the total pounds of NO<sub>x</sub> emissions per day from all EGFs included in the system cap for the preceding 30 days.**

*Comment*

EPA commented that for the system cap option for EGUs, a permanently retired or decommissioned and rendered inoperable EGU may not be included in the system cap emission limit. EPA commented that its 2001 guidance document “Improving Air Quality with Economic Incentive Programs (EIPs)” Section 7.2(a), Fundamental integrity elements, states “The terms surplus, quantifiable, enforceable, and permanent refer to the fundamental integrity elements that apply to emission reductions that qualify for inclusion in your emission averaging EIP. In emission averaging EIPs, the source-specific fundamental elements of surplus, enforceable, quantifiable, and permanent, as used with reference to the actions of the individual sources participating in the EIP, have special meanings... Stationary-source shutdowns and production activity curtailments are not eligible as emission reductions”.

***Response***

**The system cap option in §117.1120 is not a type of emission averaging program, it is a source-specific emission cap program as described in Section 7.3 of the EPA’s EIP guidance referenced in EPA’s comment. EPA’s guidance describes a source-specific emissions cap as an emission trading EIP that allows a specified stationary source or a limited group of sources that are subject to a rate-based emission limit to meet that requirement by accepting a mass-based emission limit, or cap, rather than complying directly with a rate-based limit. The system cap option in §117.1120 is a mass-based limit (in pounds per day) that takes the summation of multiple units in one electric power generating system to demonstrate compliance with rate-based RACT limits. The system cap includes all applicable units owned by one entity (e.g., an electric cooperative or municipality) within the Bexar County nonattainment area. Unlike an emission averaging program that applies to multiple sources across different sites, a source-specific emission cap program does allow shutdowns and curtailments to be included as reductions, so long as the unit being retired**

**was originally included in the system cap program. EPA’s guidance includes additional considerations to prevent a shutdown from merely shifting emissions elsewhere. The system cap in §117.1120 complies with the guidance for source-specific emission cap programs because a unit that is permanently retired or decommissioned and rendered inoperable may be included in the system cap only if the permanent shutdown occurred on or after the January 1, 2025, RACT compliance date. The rule also contains an additional limitation that prevents a facility from using a shutdown that is relied on for NSR netting or offsets from being included in the system cap. For these reasons, the Bexar County system cap in §117.1120 complies with EPA guidance. No changes were made in response to this comment.**

*Comment*

TIP commented that it supports the TCEQ's proposed revisions to address its March 13, 2023, Petition for Rulemaking, which highlighted that Tier 4 engines are not manufactured with pre-installed CEMS because they are designed and manufactured with tamper-resistant controls to meet federal NO<sub>x</sub> emission limits as set forth in 40 CFR Part 1039, Subpart B. Tier 4 engines are certified by manufacturers and rely on SCR systems which use a chemical reagent, such as ammonia, to meet federal standards. The same tamper-resistant design also ensures that ammonia emissions associated with SCR systems are controlled. TIP commented that the proposed rulemaking thus appropriately exempts Tier 4 engines from NO<sub>x</sub> and ammonia monitoring requirements under Chapter 117 based on meeting certain criteria. TIP stated that the proposed rulemaking also properly adjusts the applicable ammonia emission limit to be consistent with other equipment with higher oxygen operation levels in exhaust gas. TIP stated that if finalized, the proposed rulemaking would align state rules with the federal Tier 4 engine standards, which preclude tampering or alteration, and therefore, as noted in the agency's

preamble, provide reasonable assurance of compliance with the applicable NO<sub>x</sub> and ammonia specifications.

***Response***

**The TCEQ appreciates the support.**

***Comment***

Sierra Club pointed to more stringent NO<sub>x</sub> controls in other regions and recommended that TCEQ adopt similar RACT standards for Bexar County. EPA commented that TCEQ should evaluate RACT at lower than the proposed emission rates that are approved as RACT elsewhere in Texas nonattainment areas. Specifically, EPA commented that TCEQ should evaluate the following: (a) coal-fired EGUs with SCR at a rate lower than 0.069 lb/MMBtu since the J.K. Spruce 1 unit regularly operates at rates less than 0.069 lb/MMBtu, and the Emissions Specifications for Attainment Demonstration (ESAD) rate for the same source type in the HGB nonattainment area is 0.05 lb/MMBtu; (b) coal-fired EGUs without SCR for the implementation of both selective noncatalytic reduction and SCR since the J.K. Spruce 2 unit regularly operates at rates less than 0.2 lb/MMBtu, and the ESAD rate for the same source type in the HGB nonattainment area is 0.045 lb/MMBtu; and (c) gas-fired EGUs at emission rates lower than the proposed 0.20 lb/MMBtu since the DFW and HGB nonattainment areas have lower emission rates in place for the same source type.

***Response***

**The Bexar County RACT determination does not need to set the lowest emission limit found elsewhere as RACT, but rather evaluate limits for technical feasibility and economic reasonableness for stationary sources in Bexar County.**

**TCEQ sets two tiers of emission limits. One for RACT and another that is beyond RACT. For NO<sub>x</sub>, the beyond RACT tier is in sections of 30 TAC Chapter 117 with a title including “for Attainment Demonstration” and the RACT limits are in sections titled “Emission Specifications for Reasonably Available Control Technology (RACT)”. EPA appears to confuse EGU RACT limits with ESAD limits. TCEQ is adopting RACT limits for EGUs in Bexar County that are equal to or more stringent than RACT limits on the same source categories in the HGB area, the only Texas nonattainment area with RACT emission limits on EGUs (30 TAC §117.1205).**

**For instance, the EGU RACT limit in HGB is 0.38 lb/MMBtu for tangential-fired units and 0.43 lb/MMBtu for wall-fired. The 0.05 lb/MMBtu limit that EPA cited is the ESAD limit in HGB for tangential-fired units. The 0.069 lb/MMBtu limit for coal-fired EGUs with SCR in Bexar County is less than the RACT limit in HGB. The 0.2 lb/MMBtu RACT limit for coal-fired EGUs without SCR in Bexar County is less than the comparable RACT limit in HGB. The gas-fired EGU boiler RACT limit in HGB is the same 0.20 lb/MMBtu limit applied in Bexar County.**

**No changes were made in response to this comment.**

*Comment*

Sierra Club asserted that installing SCR technology on coal-fired power plants such as J.K. Spruce Unit 1 is economically and technologically feasible due to widespread use, inclusion in other state and EPA regulations, and based on a modeling study report conducted by Sonoma Technology and submitted with the comment.



*Response*

The commission evaluated RACT for the Bexar County RACT SIP revision (Non-Rule Project No. 2023-107-SIP-NR) based on the 2015 eight-hour ozone standard SIP requirements rule (83 FR 62998). TCEQ considered economic and technological feasibility in its RACT determination and chose not to declare installing SCR to be RACT for J.K. Spruce Unit 1 for this Bexar County RACT SIP revision. The commission calculated the cost of installation of an SCR system capable of removing 90% of the NO<sub>x</sub> on J.K. Spruce Unit 1 as \$36,078/ton of NO<sub>x</sub> removed. The commission concludes that installation of SCR technology on J.K. Spruce Unit 1 is economically infeasible at this time and is therefore not RACT for this unit. No changes were made in response to this comment.

*Comment*

Sierra Club suggested setting NO<sub>x</sub> RACT limits for coal-fired EGU units with SCR such as J. K. Spruce Unit 2 aligned with the SCR system's full potential usage based on manufacturer guidelines and good engineering practices. Sierra Club recommended setting the RACT limit at 0.03 lb/MMBtu because it is the lowest rate achieved over the period October 2017 to October 2022.

*Response*

The commission evaluated RACT based on the 2015 eight-hour ozone standard SIP requirements rule (83 FR 62998). TCEQ considers economic and technological feasibility in its RACT determination. The 0.069 lb/MMBtu emission limit for J.K. Spruce Unit 2, an EGU boiler fired on coal and controlled by SCR, is the level set in its EPA-approved permit and measured as a 30-day rolling average. The commission also contends that an emission limit cannot be set at the lowest level a unit has ever achieved in any 30-day period, as

**commenters suggest, but must be set at a value the unit can achieve in all 30-day periods. In its comment, Sierra Club included a table showing that during the October 2017 to October 2022 period, J. K. Spruce Unit 2 emitted between 0.031 and 0.069 lb/MMBtu. This shows that the RACT limit of 0.069 lb/MMBtu is technologically feasible for all 30-day periods analyzed. No changes were made in response to this comment.**

## **SUBCHAPTER A: DEFINITIONS**

### **§117.10**

#### **Statutory Authority**

The amendments are adopted under Texas Water Code (TWC), §5.102, concerning general powers; §5.103, concerning Rules; TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §7.002, concerning Enforcement Authority, which authorizes the commission to enforce the provisions of the Water Code and the Health and Safety Code within the commission's jurisdiction; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The amendments are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; and THSC, §382.012, concerning the State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air.

The adopted amendments implement TWC, §§5.102, 5.103, 5.105 and 7.002; and THSC, §§382.002, 382.011, 382.012, 382.017.

**§117.10. Definitions.**

Unless specifically defined in the Texas Clean Air Act or Chapter 101 of this title (relating to General Air Quality Rules), the terms in this chapter have the meanings commonly used in the field of air pollution control. Additionally, the following meanings apply, unless the context clearly indicates otherwise. Additional definitions for terms used in this chapter are found in §3.2 and §101.1 of this title (relating to Definitions).

(1) Annual capacity factor--The total annual fuel consumed by a unit divided by the fuel that could be consumed by the unit if operated at its maximum rated capacity for 8,760 hours per year.

(2) Applicable ozone nonattainment area--The following areas, as designated under the 1990 Federal Clean Air Act Amendments.

(A) Beaumont-Port Arthur ozone nonattainment area--An area consisting of Hardin, Jefferson, and Orange Counties.

(B) Bexar County ozone nonattainment area--An area consisting of Bexar County.

(C) Dallas-Fort Worth eight-hour ozone nonattainment area--An area consisting of:

(i) for the purposes of Subchapter D of this chapter (relating to Combustion Control at Minor Sources in Ozone Nonattainment Areas), Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant Counties; or

(ii) for all other divisions of this chapter, Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, Tarrant, and Wise Counties.

(D) Houston-Galveston-Brazoria ozone nonattainment area--An area consisting of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller Counties.

(3) Auxiliary steam boiler--Any combustion equipment within an electric power generating system, as defined in this section, that is used to produce steam for purposes other than generating electricity. An auxiliary steam boiler produces steam as a replacement for steam produced by another piece of equipment that is not operating due to planned or unplanned maintenance.

(4) Average activity level for fuel oil firing--The product of an electric utility unit's maximum rated capacity for fuel oil firing and the average annual capacity factor for fuel oil firing for the period from January 1, 1990, to December 31, 1993.

(5) Block one-hour average--An hourly average of data, collected starting at the beginning of each clock hour of the day and continuing until the start of the next clock hour.

(6) Boiler--Any combustion equipment fired with solid, liquid, and/or gaseous fuel used to produce steam or to heat water.

(7) Btu--British thermal unit.

(8) Chemical processing gas turbine--A gas turbine that vents its exhaust gases into the operating stream of a chemical process.

(9) Continuous emissions monitoring system (CEMS)--The total equipment necessary for the continuous determination and recordkeeping of process gas concentrations and emission rates in units of the applicable emission limitation.

(10) Daily--A calendar day starting at midnight and continuing until midnight the following day.

(11) Diesel engine--A compression-ignited two- or four-stroke engine that liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition.

(12) Duct burner--A unit that combusts fuel and that is placed in the exhaust duct from another unit (such as a stationary gas turbine, stationary internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases.

(13) Electric generating facility (EGF)--A unit that generates electric energy for compensation and is owned or operated by a person doing business in this state, including a municipal corporation, electric cooperative, or river authority.

(14) Electric power generating system--One electric power generating system consists of either:

(A) for the purposes of Subchapter C, Divisions 1, 2, and 4 of this chapter (relating to Beaumont-Port Arthur Ozone Nonattainment Area Utility Electric Generation Sources; Bexar County Ozone Nonattainment Area Utility Electric Generation Sources; and Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Utility Electric Generation Sources), all boilers, auxiliary steam boilers, and stationary gas turbines (including duct burners used in turbine exhaust ducts) at electric generating facility (EGF) accounts that generate electric energy for compensation; are owned or operated by an electric cooperative, municipality, river authority, public utility, independent power producer, or a Public Utility Commission of Texas regulated utility, or any of its successors; and are entirely located in one of the following ozone nonattainment areas:

(i) Beaumont-Port Arthur;

(ii) Bexar County; or

(iii) Dallas-Fort Worth eight-hour;

(B) for the purposes of Subchapter C, Division 3 of this chapter (relating to Houston-Galveston-Brazoria Ozone Nonattainment Area Utility Electric Generation Sources), all boilers, auxiliary steam boilers, and stationary gas turbines (including duct burners used in turbine exhaust ducts) at EGF accounts that generate electric energy for compensation; are owned or operated by an electric cooperative, municipality, river authority, public utility, or a Public Utility Commission of Texas regulated utility, or any of its successors; and are entirely located in the Houston-Galveston-Brazoria ozone nonattainment area;

(C) for the purposes of Subchapter B, Division 3 of this chapter (relating to Houston-Galveston-Brazoria Ozone Nonattainment Area Major Sources), all units in the Houston-Galveston-Brazoria ozone nonattainment area that generate electricity but do not meet the conditions specified in subparagraph (B) of this paragraph, including, but not limited to, cogeneration units and units owned by independent power producers; or

(D) for the purposes of Subchapter E, Division 1 of this chapter (relating to Utility Electric Generation in East and Central Texas), all boilers, auxiliary steam boilers, and stationary gas turbines at EGF accounts that generate electric energy for compensation; are owned or operated by an electric cooperative, independent power producer, municipality, river authority, or public utility, or any of its successors; and are located in Atascosa, Bastrop, Brazos, Calhoun, Cherokee, Fannin, Fayette, Freestone, Goliad, Gregg, Grimes, Harrison, Henderson, Hood, Hunt, Lamar, Limestone, Marion, McLennan, Milam, Morris, Nueces, Parker, Red River, Robertson, Rusk, Titus, Travis, Victoria, or Wharton County, or in Bexar County until December 31, 2024.

(15) Emergency situation--As follows.



(A) An emergency situation is any of the following:

(i) an unforeseen electrical power failure from the serving electric power generating system;

(ii) the period of time that an Electric Reliability Council of Texas, Inc. (ERCOT)-issued emergency notice or energy emergency alert (EEA) (as defined in *ERCOT Nodal Protocols, Section 2: Definitions and Acronyms* (August 13, 2014) and issued as specified in *ERCOT Nodal Protocols, Section 6: Adjustment Period and Real-Time Operations* (August 13, 2014)) is applicable to the serving electric power generating system. The emergency situation is considered to end upon expiration of the emergency notice or EEA issued by ERCOT;

(iii) an unforeseen failure of on-site electrical transmission equipment (e.g., a transformer);

(iv) an unforeseen failure of natural gas service;

(v) an unforeseen flood or fire, or a life-threatening situation;

(vi) operation of emergency generators for Federal Aviation Administration licensed airports, military airports, or manned space flight control centers for the purposes of providing power in anticipation of a power failure due to severe storm activity;  
or

(vii) operation of an emergency generator as part of ERCOT's emergency response service (as defined in *ERCOT Nodal Protocols, Section 2: Definitions and Acronyms* (August 13, 2014)) if the operation is in direct response to an instruction by ERCOT during the period of an ERCOT EEA as specified in clause (ii) of this subparagraph.

(B) An emergency situation does not include:

(i) operation for training purposes or other foreseeable events; or

(ii) operation for purposes of supplying power for distribution to the electric grid, except as specified in subparagraph (A)(vii) of this paragraph.

(16) Functionally identical replacement--A unit that performs the same function as the existing unit that it replaces, with the condition that the unit replaced must be physically removed or rendered permanently inoperable before the unit replacing it is placed into service.

(17) Heat input--The chemical heat released due to fuel combustion in a unit, using the higher heating value of the fuel. This does not include the sensible heat of the incoming combustion air. In the case of carbon monoxide (CO) boilers, the heat input includes the enthalpy of all regenerator off-gases and the heat of combustion of the incoming CO and of the auxiliary fuel. The enthalpy change of the fluid catalytic cracking unit regenerator off-gases refers to the total heat content of the gas at the temperature it enters the CO boiler, referring to the heat content at 60 degrees Fahrenheit, as being zero.

(18) Heat treat furnace--A furnace that is used in the manufacturing, casting, or forging of metal to heat the metal so as to produce specific physical properties in that metal.

(19) High heat release rate--A ratio of boiler design heat input to firebox volume (as bounded by the front firebox wall where the burner is located, the firebox side waterwall, and extending to the level just below or in front of the first row of convection pass tubes) greater than or equal to 70,000 British thermal units per hour per cubic foot.

(20) Horsepower rating--The engine manufacturer's maximum continuous load rating at the lesser of the engine or driven equipment's maximum published continuous speed.

(21) Incinerator--As follows.

(A) For the purposes of this chapter, the term "incinerator" includes both of the following:

(i) a control device that combusts or oxidizes gases or vapors (e.g., thermal oxidizer, catalytic oxidizer, vapor combustor); and

(ii) an incinerator as defined in §101.1 of this title (relating to Definitions).

(B) The term "incinerator" does not apply to boilers or process heaters as defined in this section, or to flares as defined in §101.1 of this title.

(22) Industrial boiler--Any combustion equipment, not including utility or auxiliary steam boilers as defined in this section, fired with liquid, solid, or gaseous fuel, that is used to produce steam or to heat water.

(23) International Standards Organization (ISO) conditions--ISO standard conditions of 59 degrees Fahrenheit, 1.0 atmosphere, and 60% relative humidity.

(24) Large utility system--All boilers, auxiliary steam boilers, and stationary gas turbines that are located in the Dallas-Fort Worth eight-hour ozone nonattainment area, and were part of one electric power generating system on January 1, 2000, that had a combined electric generating capacity equal to or greater than 500 megawatts.

(25) Lean-burn engine--A spark-ignited or compression-ignited, Otto cycle, diesel cycle, or two-stroke engine that is not capable of being operated with an exhaust stream oxygen concentration equal to or less than 0.5% by volume, as originally designed by the manufacturer.

(26) Low annual capacity factor boiler, process heater, or gas turbine supplemental waste heat recovery unit--An industrial, commercial, or institutional boiler; process heater; or gas turbine supplemental waste heat recovery unit with maximum rated capacity:

(A) greater than or equal to 40 million British thermal units per hour (MMBtu/hr), but less than 100 MMBtu/hr and an annual heat input less than or equal to 2.8 (10<sup>11</sup>) British thermal units per year (Btu/yr), based on a rolling 12-month average; or

(B) greater than or equal to 100 MMBtu/hr and an annual heat input less than or equal to 2.2 ( $10^{11}$ ) Btu/yr, based on a rolling 12-month average.

(27) Low annual capacity factor stationary gas turbine or stationary internal combustion engine--A stationary gas turbine or stationary internal combustion engine that is demonstrated to operate less than 850 hours per year, based on a rolling 12-month average.

(28) Low heat release rate--A ratio of boiler design heat input to firebox volume less than 70,000 British thermal units per hour per cubic foot.

(29) Major source--Any stationary source or group of sources located within a contiguous area and under common control that emits or has the potential to emit:

(A) at least 50 tons per year (tpy) of nitrogen oxides ( $\text{NO}_x$ ) and is located in the Beaumont-Port Arthur ozone nonattainment area;

(B) at least 100 tpy of  $\text{NO}_x$  and is located in the Bexar County ozone nonattainment area;

(C) at least 25 tpy of  $\text{NO}_x$  and is located in the Dallas-Fort Worth eight-hour ozone nonattainment area;

(D) at least 25 tpy of  $\text{NO}_x$  and is located in the Houston-Galveston-Brazoria ozone nonattainment area; or

(E) the amount specified in the major source definition contained in the Prevention of Significant Deterioration of Air Quality regulations promulgated by the United States Environmental Protection Agency in 40 Code of Federal Regulations §52.21 as amended June 3, 1993 (effective June 3, 1994), and is located in Atascosa, Bastrop, Brazos, Calhoun, Cherokee, Comal, Fannin, Fayette, Freestone, Goliad, Gregg, Grimes, Harrison, Hays, Henderson, Hood, Hunt, Lamar, Limestone, Marion, McLennan, Milam, Morris, Nueces, Red River, Robertson, Rusk, Titus, Travis, Victoria, or Wharton County or in Bexar County until December 31, 2024.

(30) Maximum rated capacity--The maximum design heat input, expressed in million British thermal units per hour, unless:

(A) the unit is a boiler, utility boiler, or process heater operated above the maximum design heat input (as averaged over any one-hour period), in which case the maximum operated hourly rate must be used as the maximum rated capacity; or

(B) the unit is limited by operating restriction or permit condition to a lesser heat input, in which case the limiting condition must be used as the maximum rated capacity; or

(C) the unit is a stationary gas turbine, in which case the manufacturer's rated heat consumption at the International Standards Organization (ISO) conditions must be used as the maximum rated capacity, unless limited by permit condition to a lesser heat input, in which case the limiting condition must be used as the maximum rated capacity; or

(D) the unit is a stationary, internal combustion engine, in which case the manufacturer's rated heat consumption at Diesel Equipment Manufacturer's Association or ISO conditions must be used as the maximum rated capacity, unless limited by permit condition to a lesser heat input, in which case the limiting condition must be used as the maximum rated capacity.

(31) Megawatt (MW) rating--The continuous MW output rating or mechanical equivalent by a gas turbine manufacturer at International Standards Organization conditions, without consideration to the increase in gas turbine shaft output and/or the decrease in gas turbine fuel consumption by the addition of energy recovered from exhaust heat.

(32) Nitric acid--Nitric acid that is 30% to 100% in strength.

(33) Nitric acid production unit--Any source producing nitric acid by either the pressure or atmospheric pressure process.

(34) Nitrogen oxides (NO<sub>x</sub>)--The sum of the nitric oxide and nitrogen dioxide in the flue gas or emission point, collectively expressed as nitrogen dioxide.

(35) Parts per million by volume (ppmv)--All ppmv emission specifications specified in this chapter are referenced on a dry basis. When required to adjust pollutant concentrations to a specified oxygen (O<sub>2</sub>) correction basis, the following equation must be used.

**Figure: 30 TAC §117.10(35) (No change)**

(36) Peaking gas turbine or engine--A stationary gas turbine or engine used intermittently to produce energy on a demand basis.

(37) Plant-wide emission rate--The ratio of the total actual nitrogen oxides mass emissions rate discharged into the atmosphere from affected units at a major source when firing at their maximum rated capacity to the total maximum rated capacities for those units.

(38) Plant-wide emission specification--The ratio of the total allowable nitrogen oxides mass emissions rate dischargeable into the atmosphere from affected units at a major source when firing at their maximum rated capacity to the total maximum rated capacities for those units.

(39) Predictive emissions monitoring system (PEMS)--The total equipment necessary for the continuous determination and recordkeeping of process gas concentrations and emission rates using process or control device operating parameter measurements and a conversion equation or computer program to produce results in units of the applicable emission limitation.

(40) Process heater--Any combustion equipment fired with liquid and/or gaseous fuel that is used to transfer heat from combustion gases to a process fluid, superheated steam, or water for the purpose of heating the process fluid or causing a chemical reaction. The term "process heater" does not apply to any unfired waste heat recovery heater that is used to



recover sensible heat from the exhaust of any combustion equipment, or to boilers as defined in this section.

(41) Pyrolysis reactor--A unit that produces hydrocarbon products from the endothermic cracking of feedstocks such as ethane, propane, butane, and naphtha using combustion to provide indirect heating for the cracking process.

(42) Reheat furnace--A furnace that is used in the manufacturing, casting, or forging of metal to raise the temperature of that metal in the course of processing to a temperature suitable for hot working or shaping.

(43) Rich-burn engine--A spark-ignited, Otto cycle, four-stroke, naturally aspirated or turbocharged engine that is capable of being operated with an exhaust stream oxygen concentration equal to or less than 0.5% by volume, as originally designed by the manufacturer.

(44) Small utility system--All boilers, auxiliary steam boilers, and stationary gas turbines that are located in the Dallas-Fort Worth eight-hour ozone nonattainment area, and were part of one electric power generating system on January 1, 2000, that had a combined electric generating capacity less than 500 megawatts.

(45) Stationary gas turbine--Any gas turbine system that is gas and/or liquid fuel fired with or without power augmentation. This unit is either attached to a foundation or is portable equipment operated at a specific minor or major source for more than 90 days in any 12-month period. Two or more gas turbines powering one shaft must be treated as one unit.

(46) Stationary internal combustion engine--A reciprocating engine that remains or will remain at a location (a single site at a building, structure, facility, or installation) for more than 12 consecutive months. Included in this definition is any engine that, by itself or in or on a piece of equipment, is portable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of portability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. Any engine (or engines) that replaces an engine at a location and that is intended to perform the same or similar function as the engine being replaced is included in calculating the consecutive residence time period. An engine is considered stationary if it is removed from one location for a period and then returned to the same location in an attempt to circumvent the consecutive residence time requirement. Nonroad engines, as defined in 40 Code of Federal Regulations §89.2, are not considered stationary for the purposes of this chapter.

(47) System-wide emission rate--The ratio of the total actual nitrogen oxides mass emissions rate discharged into the atmosphere from affected units in an electric power generating system or portion thereof located within a single ozone nonattainment area when firing at their maximum rated capacity to the total maximum rated capacities for those units. For fuel oil firing, average activity levels must be used in lieu of maximum rated capacities for the purpose of calculating the system-wide emission rate.

(48) System-wide emission specification--The ratio of the total allowable nitrogen oxides mass emissions rate dischargeable into the atmosphere from affected units in an electric power generating system or portion thereof located within a single ozone nonattainment area when firing at their maximum rated capacity to the total maximum rated capacities for those

units. For fuel oil firing, average activity levels must be used in lieu of maximum rated capacities for the purpose of calculating the system-wide emission specification.

(49) Thirty-day rolling average--An average, calculated for each day that fuel is combusted in a unit, of all the hourly emissions data for the preceding 30 days that fuel was combusted in the unit.

(50) Twenty-four hour rolling average--An average, calculated for each hour that fuel is combusted (or acid is produced, for a nitric or adipic acid production unit), of all the hourly emissions data for the preceding 24 hours that fuel was combusted in the unit.

(51) Unit--A unit consists of either:

(A) for the purposes of §§117.105, 117.305, 117.405, 117.1005, and 117.1205 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) and each requirement of this chapter associated with §§117.105, 117.305, 117.405, 117.1005, and 117.1205 of this title, any boiler, process heater, stationary gas turbine, or stationary internal combustion engine, as defined in this section;

(B) for the purposes of §§117.110, 117.310, 117.1010, and 117.1210 of this title (relating to Emission Specifications for Attainment Demonstration) and each requirement of this chapter associated with §§117.110, 117.310, 117.1010, and 117.1210 of this title, any boiler, process heater, stationary gas turbine, or stationary internal combustion engine, as defined in this section, or any other stationary source of nitrogen oxides (NO<sub>x</sub>) at a major source, as defined in this section;

(C) for the purposes of §117.2010 of this title (relating to Emission Specifications) and each requirement of this chapter associated with §117.2010 of this title, any boiler, process heater, stationary gas turbine (including any duct burner in the turbine exhaust duct), or stationary internal combustion engine, as defined in this section;

(D) for the purposes of §117.2110 of this title (relating to Emission Specifications for Eight-Hour Attainment Demonstration) and each requirement of this chapter associated with §117.2110 of this title, any stationary internal combustion engine, as defined in this section;

(E) for the purposes of §117.3310 of this title (relating to Emission Specifications for Eight-Hour Attainment Demonstration) and each requirement of this chapter associated with §117.3310 of this title, any stationary internal combustion engine, as defined in this section;

(F) for the purposes of §117.410 and §117.1310 of this title (relating to Emission Specifications for Eight-Hour Attainment Demonstration) and each requirement of this chapter associated with §117.410 and §117.1310 of this title, any boiler, process heater, stationary gas turbine, or stationary internal combustion engine, as defined in this section, or any other stationary source of NO<sub>x</sub> at a major source, as defined in this section;

(G) for the purposes of §117.205 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) and each requirement of this chapter associated with §117.205 of this title, any stationary gas turbine (including any

duct burner used in the turbine exhaust duct) or gas-fired lean-burn stationary reciprocating internal combustion engine, as defined in this section; or

(H) for the purposes of §117.1105 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) and each requirement of this chapter associated with §117.1105 of this title, any utility boiler, auxiliary steam boiler, or stationary gas turbine (including any duct burner used in turbine exhaust ducts), as defined in this section.

(52) Utility boiler--Any combustion equipment owned or operated by an electric cooperative, municipality, river authority, public utility, or Public Utility Commission of Texas regulated utility, fired with solid, liquid, and/or gaseous fuel, used to produce steam for the purpose of generating electricity. Stationary gas turbines, including any associated duct burners and unfired waste heat boilers, are not considered to be utility boilers.

(53) Wood--Wood, wood residue, bark, or any derivative fuel or residue thereof in any form, including, but not limited to, sawdust, sander dust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

**SUCHAPTER B: COMBUSTION CONTROL AT MAJOR INDUSTRIAL, COMMERCIAL, AND  
INSTITUTIONAL SOURCES IN OZONE NONATTAINMENT AREAS  
DIVISION 2: BEXAR COUNTY OZONE NONATTAINMENT AREA MAJOR SOURCES  
§§117.200, 117.203, 117.205, 117.230, 117.235, 117.240, 117.245, 117.252**

**Statutory Authority**

The new rules are adopted under Texas Water Code (TWC), §5.102, concerning general powers; §5.103, concerning Rules; TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §7.002, concerning Enforcement Authority, which authorizes the commission to enforce the provisions of the Water Code and the Health and Safety Code within the commission's jurisdiction; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new rules are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning the State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants; and THSC, §382.021, concerning Sampling Methods and Procedures.

The adopted new rules implement TWC, §§5.102, 5.103 and 7.002; and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

**§117.200. Applicability.**

This division applies to the following units located at any major stationary source of nitrogen oxides located in the Bexar County ozone nonattainment area:

- (1) stationary gas turbines;
- (2) duct burners used in turbine exhaust ducts; and
- (3) gas-fired lean-burn stationary reciprocating internal combustion engines.

**§117.203. Exemptions.**

The following units are exempt from this division, except as specified in §§117.240(f), 117.245(f)(4) and (9), and 117.252 of this title (relating to Continuous Demonstration of Compliance; Notification, Recordkeeping, and Reporting Requirements; and Control Plan Procedures for Reasonably Available Control Technology (RACT)):

- (1) stationary gas turbines and gas-fired lean-burn stationary reciprocating internal combustion engines that are used as follows:

(A) in research and testing of the unit;

(B) for purposes of performance verification and testing of the unit;

(C) solely to power other gas turbines or engines during startups;

(D) exclusively in emergency situations, except that operation for testing or maintenance purposes of the gas turbine or engine is allowed for up to 100 hours per year, based on a rolling 12-month basis; or

(E) in response to and during the existence of any officially declared disaster or state of emergency;

(2) gas-fired lean-burn stationary reciprocating internal combustion engines with a horsepower (hp) rating less than 50 hp;

(3) stationary gas turbines with a maximum rated capacity less than 10.0 million British thermal units per hour; and

(4) units located at a major source that is subject to Subchapter C, Division 2 of this chapter (related to Bexar County Ozone Nonattainment Area Utility Electric Generation Sources).

**§117.205. Emission Specifications for Reasonably Available Control Technology (RACT).**



(a) Emission specifications. No person shall allow the discharge into the atmosphere nitrogen oxides (NO<sub>x</sub>) emissions in excess of the following emission specifications, in accordance with the applicable schedule in §117.9010 of this title (relating to Compliance Schedule for Bexar County Ozone Nonattainment Area Major Sources), except as provided in subsection (c) of this section:

(1) stationary gas turbines, 0.55 pound per million British thermal unit (lb/MMBtu);

(2) duct burners used in turbine exhaust ducts, 0.55 lb/MMBtu; and

(3) gas-fired lean-burn stationary reciprocating internal combustion engines, 0.5 gram per horsepower-hour.

(b) NO<sub>x</sub> averaging time. The emission specifications in subsection (a) of this section apply on:

(1) a block one-hour average, in the units of the applicable standard; or

(2) if the unit is operated with a NO<sub>x</sub> continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) under §117.240 of this title (relating to Continuous Demonstration of Compliance), a rolling 30-day average, in the units of the applicable standard.

(c) Compliance flexibility. An owner or operator may use §117.9800 of this title (relating

to Use of Emission Credits for Compliance) to comply with the NO<sub>x</sub> emission specifications of this section.

(d) Prohibition of circumvention.

(1) The maximum rated capacity used to determine the applicability of the emission specifications in this section and the initial compliance demonstration, monitoring, testing requirements, and control plan requirements in §§117.235, 117.240, and 117.252 of this title (relating to Initial Demonstration of Compliance; Continuous Demonstration of Compliance; and Control Plan Procedures for Reasonably Available Control Technology) must be the greater of the following:

(A) the maximum rated capacity as of December 31, 2019;

(B) the maximum rated capacity after December 31, 2019; or

(C) the maximum rated capacity authorized by a permit issued under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) after December 31, 2019.

(2) A unit's classification is determined by the most specific classification applicable to the unit as of December 31, 2019. For example, a unit that is classified as a gas-fired lean-burn stationary reciprocating internal combustion engine as of December 31, 2019, but subsequently is authorized to operate as a dual-fuel engine, is classified as a gas-fired lean-burn stationary reciprocating internal combustion engine for the purposes of this chapter.

(3) A source that met the definition of major source on December 31, 2019, is always classified as a major source for purposes of this chapter. A source that did not meet the definition of major source (i.e., was a minor source, or did not yet exist) on December 31, 2019, but becomes a major source at any time after December 31, 2019, is from that time forward always classified as a major source for purposes of this chapter.

**§117.230. Operating Requirements.**

All units subject to the emission specifications in §117.205 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) must be operated to minimize nitrogen oxides (NO<sub>x</sub>) emissions, consistent with the emission control techniques selected, over the unit's operating or load range during normal operations. Such operational requirements include the following.

(1) Each unit controlled with post-combustion control techniques must be operated such that the reducing agent injection rate is maintained to limit NO<sub>x</sub> concentrations to less than or equal to the NO<sub>x</sub> concentrations achieved at maximum rated capacity.

(2) Each gas-fired lean-burn stationary reciprocating internal combustion engine must be checked for proper operation of the engine according to §117.8140(b) of this title (relating to Emission Monitoring for Engines).

**§117.235. Initial Demonstration of Compliance.**

(a) The owner or operator of any unit subject to §117.205 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) shall test the unit for nitrogen oxides (NO<sub>x</sub>) and oxygen (O<sub>2</sub>) emissions while firing gaseous fuel or, as applicable, liquid and solid fuel.

(b) Initial demonstration of compliance testing must be performed in accordance with the schedule specified in §117.9010 of this title (relating to Compliance Schedule for Bexar County Ozone Nonattainment Area Major Sources).

(c) The initial demonstration of compliance tests required by subsection (a) of this section must use the methods referenced in subsection (e) or (f) of this section and must be used for determination of initial compliance with the emission specifications of this division. Test results must be reported in the units of the applicable emission specifications and averaging periods.

(d) Any continuous emissions monitoring system (CEMS) or any predictive emissions monitoring system (PEMS) required by §117.240 of this title (relating to Continuous Demonstration of Compliance) must be installed and operational before conducting testing under subsection (a) of this section. 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 or system.

(e) For units operating without CEMS or PEMS, compliance with the emission specifications of this division must be demonstrated according to the requirements of

§117.8000 of this title (relating to Stack Testing Requirements).

(f) For units operating with CEMS or PEMS in accordance with §117.240 of this title, initial compliance with the emission specifications of this division must be demonstrated after monitor certification testing using the CEMS or PEMS. For units complying with a NO<sub>x</sub> emission specification on a block one-hour average, every one-hour period while operating at the maximum rated capacity (or as near thereto as practicable) is used to determine compliance with the NO<sub>x</sub> emission specification.

(g) Compliance stack test reports must include the information required in §117.8010 of this title (relating to Compliance Stack Test Reports).

**§117.240. Continuous Demonstration of Compliance.**

(a) Totalizing fuel flow meters.

(1) The owner or operator of units subject to this division shall install, calibrate, maintain, and operate a totalizing fuel flow meter, with an accuracy of  $\pm 5\%$ , 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. The owner or operator must continuously operate the totalizing fuel flow meter at least 95% of the time when the unit is operating during a calendar year. For the purpose of compliance with this subsection for units having pilot fuel supplied by a separate fuel system or from an unmonitored portion of the same fuel system, the fuel flow to pilots may be calculated using the manufacturer's

design flow rates rather than measured with a fuel flow meter. The calculated pilot fuel flow rate must be added to the monitored fuel flow when fuel flow is totaled.

(2) The following are alternatives to the fuel flow monitoring requirements of this subsection.

(A) Units operating with a nitrogen oxides (NO<sub>x</sub>) and diluent continuous emissions monitoring system (CEMS) under subsection (c) of this section may monitor stack exhaust flow using the flow monitoring specifications of 40 Code of Federal Regulations (CFR) Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A.

(B) Units that vent to a common stack with a NO<sub>x</sub> and diluent CEMS under subsection (c) of this section may use a single totalizing fuel flow meter.

(C) Gas-fired lean-burn stationary reciprocating internal combustion engines and gas turbines equipped with a continuous monitoring system that continuously monitors horsepower and hours of operation are not required to install totalizing fuel flow meters. The continuous monitoring system must be installed, calibrated, maintained, and operated according to manufacturers' recommended procedures.

(b) NO<sub>x</sub> monitors.

(1) The owner or operator of the following units shall install, calibrate, maintain, and operate a CEMS or predictive emissions monitoring system (PEMS) to monitor exhaust NO<sub>x</sub>:

(A) units with a rated heat input greater than or equal to 100 million British thermal units (MMBtu) per hour;

(B) stationary gas turbines with a megawatt (MW) rating greater than or equal to 30 MW and operated more than 850 hours per year;

(C) units that use a chemical reagent for reduction of NO<sub>x</sub>; and

(D) units that the owner or operator elects to comply with the NO<sub>x</sub> emission specifications of §117.205(a) of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) using a pound per MMBtu limit on a 30-day rolling average.

(2) Units subject to the NO<sub>x</sub> CEMS requirements of 40 CFR Part 75 are not required to install CEMS or PEMS under this subsection.

(3) The owner or operator shall use one of the following methods to provide substitute emissions compliance data during periods when the NO<sub>x</sub> monitor is off-line:

(A) if the NO<sub>x</sub> monitor is a CEMS:

(i) subject to 40 CFR Part 75, use the missing data procedures specified in 40 CFR Part 75, Subpart D (Missing Data Substitution Procedures); or

(ii) subject to 40 CFR Part 75, Appendix E, use the missing data procedures specified in 40 CFR Part 75, Appendix E, §2.5 (Missing Data Procedures);

(B) if the NO<sub>x</sub> monitor is a PEMS:

(i) use the methods specified in 40 CFR Part 75, Subpart D; or

(ii) use calculations in accordance with §117.8110(b) of this title (relating to Emission Monitoring System Requirements for Utility Electric Generation Sources);

(C) monitor operating parameters for each unit in accordance with 40 CFR Part 75, Appendix E, §1.1 or §1.2 and calculate NO<sub>x</sub> emission rates based on those procedures; or

(D) use the maximum block one-hour emission rate as measured during the initial demonstration of compliance required in §117.235(e) of this title (relating to Initial Demonstration of Compliance).

(c) CEMS requirements. The owner or operator of any CEMS used to meet a pollutant monitoring requirement of this section shall comply with the requirements of §117.8100(a) of this title (relating to Emission Monitoring System Requirements for Industrial, Commercial, and Institutional Sources).

(d) PEMS requirements. The owner or operator of any PEMS used to meet a pollutant monitoring requirement of this section shall comply with the following.



(1) The PEMS must predict the pollutant emissions in the units of the applicable emission limitations of this division.

(2) The PEMS must meet the requirements of §117.8100(b) of this title.

(e) Engine monitoring. The owner or operator of any gas-fired lean-burn stationary reciprocating internal combustion engine subject to the emission specifications of this division shall stack test engine NO<sub>x</sub> emissions as specified in §117.8140(a) of this title (relating to Emission Monitoring for Engines).

(f) Run time meters. The owner or operator of any stationary gas turbine or gas-fired lean-burn stationary reciprocating internal combustion engine claimed exempt using the exemption of §117.203(1)(D) of this title (relating to Exemptions) shall record the operating time with a non-resettable elapsed run time meter.

(g) Data used for compliance. After the initial demonstration of compliance required by §117.235 of this title, the methods required in this section must be used to determine compliance with the emission specifications of §117.205(a) of this title. For enforcement purposes, the executive director may also use other commission compliance methods to determine whether the unit is in compliance with applicable emission specifications.

(h) Testing requirements.

(1) The owner or operator of units that are subject to the emission specifications of §117.205(a) of this title shall test the units as specified in §117.235 of this title in accordance with the applicable schedule specified in §117.9010 of this title (relating to Compliance Schedule for Bexar County Eight-Hour Ozone Nonattainment Area Major Sources).

(2) The owner or operator of any unit not equipped with CEMS or PEMS that are subject to the emission specifications of §117.205(a) of this title shall retest the unit as specified in §117.235 of this title within 60 days after any modification that could reasonably be expected to increase the NO<sub>x</sub> emission rate.

**§117.245. Notification, Recordkeeping, and Reporting Requirements.**

(a) Startup and shutdown records. 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 by the executive director, the United States Environmental Protection Agency, and any local air pollution control agency having jurisdiction upon request. These records must include but are not limited to: type of fuel burned; quantity of each type of fuel burned; and the date, time, and duration of the procedure.

(b) Notification. The owner or operator of a unit subject to the emission specifications of §117.205(a) of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) shall submit written notification of any continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) relative accuracy test audit (RATA) conducted under §117.240 of this title (relating to Continuous Demonstration of

Compliance) or any testing conducted under §117.235 of this title (relating to Initial Demonstration of Compliance) at least 15 days in advance of the date of the RATA or testing to the appropriate regional office and any local air pollution control agency having jurisdiction.

(c) Reporting of test results. The owner or operator of a unit subject to the emission specifications of §117.205(a) of this title 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 §117.235 of this title and any CEMS or PEMS RATA conducted under §117.240 of this title:

(1) within 60 days after completion of such testing or evaluation; and

(2) not later than the compliance schedule specified in §117.9010 of this title (relating to Compliance Schedule for Bexar County Eight-Hour Ozone Nonattainment Area Major Sources).

(d) Semiannual reports. The owner or operator of a unit required to install a CEMS or PEMS under §117.240 of this title shall report in writing to the executive director on a semiannual basis any exceedance of the applicable emission specifications of this division and the monitoring system performance. All reports must be postmarked or received by the 30th day following the end of each calendar semiannual period (i.e., July 30 and January 30). Written reports must include the following information:

(1) the magnitude of excess emissions computed in accordance with 40 Code of Federal Regulations §60.13(h), any conversion factors used, the date and time of

commencement and completion of each time period of excess emissions, and the unit operating time during the reporting period;

(2) specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected unit, the nature and cause of any malfunction (if known), and the corrective action taken, or preventative measures adopted;

(3) the date and time identifying each period when the continuous monitoring system was inoperative, except for zero and span checks and the nature of the system repairs or adjustments;

(4) when no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report; and

(5) if the total duration of excess emissions for the reporting period is less than 1.0% of the total unit operating time for the reporting period and the CEMS or PEMS downtime for the reporting period is less than 5.0% of the total unit operating time for the reporting period, only a summary report form (as outlined in the latest edition of the commission's Guidance for Preparation of Summary, Excess Emission, and Continuous Monitoring System Reports) must be submitted, unless otherwise requested by the executive director. If the total duration of excess emissions for the reporting period is greater than or equal to 1.0% of the total unit operating time for the reporting period or the CEMS or PEMS downtime for the reporting period is greater than or equal to 5.0% of the total unit operating time for the reporting period, a summary report and an excess emission report must both be submitted.

(e) Reporting for engines. The owner or operator of any gas-fired engine subject to the emission specifications in §117.205 of this title shall report in writing to the executive director on a semiannual basis any excess emissions and the air-fuel ratio monitoring system performance. All reports must be postmarked or received by the 30th day following the end of each calendar semiannual period (i.e., July 30 and January 30). Written reports must include the following information:

(1) the magnitude of excess emissions (based on the quarterly emission checks of §117.230(a)(2) of this title (relating to Operating Requirements) and the biennial emission testing required for demonstration of emissions compliance in accordance with §117.240(e) of this title), computed in pounds per hour and grams per horsepower-hour, any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the engine operating time during the reporting period; and

(2) specific identification, to the extent feasible, of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the engine or emission control system, the nature and cause of any malfunction (if known), and the corrective action taken, or preventative measures adopted.

(f) Recordkeeping. The owner or operator of a unit subject to the requirements of this division shall 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 United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction.

The records must include:

(1) for each unit subject to §117.240(a) of this title, records of annual fuel usage;

(2) for each unit using a CEMS or PEMS in accordance with §117.240 of this title, monitoring records of:

(A) hourly emissions and fuel usage (or stack exhaust flow) for units complying with an emission specification enforced on a block one-hour average; or

(B) daily emissions and fuel usage (or stack exhaust flow) for units complying with an emission specification enforced on a daily or rolling 30-day average.

Emissions must be recorded in units of:

(i) pounds per million British thermal units (lb/MMBtu) heat input;

and

(ii) pounds or tons per day;

(3) for each stationary internal combustion engine subject to the emission specifications of this division, records of:

(A) emissions measurements required by:

(i) §117.230(2) of this title; and

(ii) §117.240(e) of this title;

(B) catalytic converter, air-fuel ratio controller, or other emissions-related control system maintenance, including the date and nature of corrective actions taken; and

(C) 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 §117.240(a)(2)(C) of this title;

(4) for units claimed exempt from emission specifications using the exemption of §117.203(1)(D) of this title (relating to Exemptions), records of monthly hours of operation, for exemptions based on hours per year of operation. In addition, for each turbine or engine claimed exempt under §117.203(1)(D) or (E) of this title, written records must be maintained of the purpose of turbine or engine operation and, if operation was for an emergency situation, identification of the type of emergency situation and the start and end times and date(s) of the emergency situation;

(5) records of the results of initial certification testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS or PEMS; and

(6) records of the results of performance testing, including initial demonstration of compliance testing conducted in accordance with §117.235 of this title.

**§117.252. Control Plan Procedures for Reasonably Available Control Technology.**

(a) The owner or operator of any unit subject to §117.205 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) at a major source of nitrogen oxides (NO<sub>x</sub>) shall maintain a control plan report to show compliance with the requirements of §117.205 of this title. The report must include:

(1) a list of all units that are subject to §117.205 of this title. The list must include for each unit:

(A) the facility identification number and emission point number as submitted to the Emissions Assessment Section of the commission; and

(B) the emission point number as listed on the Maximum Allowable Emissions Rate Table of any applicable commission permit;

(C) the maximum rated capacity;

(D) the method of NO<sub>x</sub> control for each unit;

(E) the emissions measured by testing required in §117.235 of this title (relating to Initial Demonstration of Compliance);

(F) the compliance stack test report or monitor certification report required by §117.235 of this title; and



(G) the use of any compliance flexibility in accordance with §117.9800 of this title (relating to Use of Emission Credits for Compliance); and

(2) a list of all units with a claimed exemption from the emission specification of §117.205 of this title and the specific rule citation claimed as the basis for that exemption.

(b) The report must be submitted to the Office of Compliance and Enforcement, the appropriate regional office, and the Office of Air by the applicable date specified for control plans in §117.9010 of this title (relating to Compliance Schedule for Bexar County Major Sources).

(c) For any unit that becomes subject to §117.205 of this title after the applicable date specified for control plans in §117.9010 of this title, the control plan must be submitted to the Office of Compliance and Enforcement, the appropriate regional office, and the Office of Air no later than 60 days after becoming subject.

(d) If any of the information changes in a control plan report submitted in accordance with subsection (b) or (c) of this section, including functionally identical replacements, the control plan must be updated no later than 60 days after the change occurs. Written or electronic records of the updated control plan 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 United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction.



**SUBCHAPTER B: COMBUSTION CONTROL AT MAJOR INDUSTRIAL COMMERCIAL, AND  
INSTITUTIONAL SOURCES IN OZONE NONATTAINMENT AREAS**

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

**§§117.310, 117.340**

**Statutory Authority**

The amended rules are adopted under Texas Water Code (TWC), §5.102, concerning general powers; §5.103, concerning Rules; TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §7.002, concerning Enforcement Authority, which authorizes the commission to enforce the provisions of the Water Code and the Health and Safety Code within the commission's jurisdiction; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The amendments are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning the State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants; and THSC, §382.021, concerning Sampling

Methods and Procedures.

The adopted amendments implement TWC, §§5.102, 5.103 and 7.002; and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

**§117.310. Emission Specifications for Attainment Demonstration.**

(a) Emission specifications for the Mass Emission Cap and Trade Program. The nitrogen oxides (NO<sub>x</sub>) emission rate values used to determine allocations for Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program) must be the lower of any applicable permit limit in a permit issued before January 2, 2001; any permit issued on or after January 2, 2001, that the owner or operator submitted an application determined to be administratively complete by the executive director before January 2, 2001; any limit in a permit by rule under which construction commenced by January 2, 2001; or the following emission specifications:

(1) gas-fired boilers:

(A) with a maximum rated capacity equal to or greater than 100 million British thermal units per hour (MMBtu/hr), 0.020 pounds per million British thermal units (lb/MMBtu);

(B) with a maximum rated capacity equal to or greater than 40 MMBtu/hr, but less than 100 MMBtu/hr, 0.030 lb/MMBtu; and

(C) with a maximum rated capacity less than 40 MMBtu/hr, 0.036 lb/MMBtu (or alternatively, 30 parts per million by volume (ppmv) NO<sub>x</sub>, at 3.0% oxygen (O<sub>2</sub>), dry basis);

(2) fluid catalytic cracking units (including carbon monoxide (CO) boilers, CO furnaces, and catalyst regenerator vents), one of the following:

(A) 40 ppmv NO<sub>x</sub> at 0.0% O<sub>2</sub>, dry basis;

(B) a 90% NO<sub>x</sub> reduction of the exhaust concentration used to calculate the June - August 1997 daily NO<sub>x</sub> emissions. To ensure that this emission specification will result in a real 90% reduction in actual emissions, a consistent methodology must be used to calculate the 90% reduction; or

(C) alternatively, for units that did not use a continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) to determine the June - August 1997 exhaust concentration, the owner or operator may:

(i) install and certify a NO<sub>x</sub> CEMS or PEMS as specified in §117.340(f) or (g) of this title (relating to Continuous Demonstration of Compliance) no later than June 30, 2001;

(ii) establish the baseline NO<sub>x</sub> emission level to be the third quarter 2001 data from the CEMS or PEMS;

(iii) provide this baseline data to the executive director no later than October 31, 2001; and

(iv) achieve a 90% NO<sub>x</sub> reduction of the exhaust concentration established in this baseline;

(3) boilers and industrial furnaces (BIF units) that were regulated as existing facilities in 40 Code of Federal Regulations (CFR) Part 266, Subpart H (as was in effect on June 9, 1993):

(A) with a maximum rated capacity equal to or greater than 100 MMBtu/hr, 0.015 lb/MMBtu; and

(B) with a maximum rated capacity less than 100 MMBtu/hr:

(i) 0.030 lb/MMBtu; or

(ii) an 80% reduction from the emission factor used to calculate the June - August 1997 daily NO<sub>x</sub> emissions. 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;

(4) coke-fired boilers, 0.057 lb/MMBtu;

(5) wood fuel-fired boilers, 0.060 lb/MMBtu;

(6) rice hull-fired boilers, 0.089 lb/MMBtu;

(7) liquid-fired boilers, 2.0 pounds per 1,000 gallons of liquid burned;

(8) process heaters:

(A) other than pyrolysis reactors:

(i) with a maximum rated capacity equal to or greater than 40 MMBtu/hr, 0.025 lb/MMBtu; and

(ii) with a maximum rated capacity less 40 MMBtu/hr, 0.036 lb/MMBtu (or alternatively, 30 ppmv NO<sub>x</sub>, at 3.0% O<sub>2</sub>, dry basis); and

(B) pyrolysis reactors, 0.036 lb/MMBtu;

(9) stationary, reciprocating internal combustion engines:

(A) gas-fired rich-burn engines:

(i) fired on landfill gas, 0.60 grams per horsepower-hour (g/hp-hr);  
and

(ii) all others, 0.50 g/hp-hr;

(B) gas-fired lean-burn engines, except as specified in subparagraph (C) of this paragraph:

(i) fired on landfill gas, 0.60 g/hp-hr; and

(ii) all others, 0.50 g/hp-hr;

(C) dual-fuel engines:

(i) with initial start of operation on or before December 31, 2000, 5.83 g/hp-hr; and

(ii) with initial start of operation after December 31, 2000, 0.50 g/hp-hr; and

(D) diesel engines, excluding dual-fuel engines, placed into service before October 1, 2001, that have not been modified, reconstructed, or relocated on or after October 1, 2001, the lower of 11.0 g/hp-hr or the emission rate established by testing, monitoring, manufacturer's guarantee, or manufacturer's other data. For the purposes of this subparagraph, the terms "modification" and "reconstruction" have the meanings defined in §116.10 of this title (relating to General Definitions) and 40 CFR §60.15 (December 16, 1975), respectively, and the term "relocated" means to newly install at an account, as defined in §101.1 of this title (relating to Definitions), a used engine from anywhere outside that account; and



(E) for diesel engines, excluding dual-fuel engines, not subject to subparagraph (D) of this paragraph:

(i) with a horsepower rating of less than 11 horsepower (hp) that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2004,  
7.0 g/hp-hr; and

(II) on or after October 1, 2004, 5.0 g/hp-hr;

(ii) with a horsepower rating of 11 hp or greater, but less than 25 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2004,  
6.3 g/hp-hr; and

(II) on or after October 1, 2004, 5.0 g/hp-hr;

(iii) with a horsepower rating of 25 hp or greater, but less than 50 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2003,  
6.3 g/hp-hr; and

(II) on or after October 1, 2003, 5.0 g/hp-hr;

(iv) with a horsepower rating of 50 hp or greater, but less than 100 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2003, 6.9 g/hp-hr;

(II) on or after October 1, 2003, but before October 1, 2007, 5.0 g/hp-hr; and

(III) on or after October 1, 2007, 3.3 g/hp-hr;

(v) with a horsepower rating of 100 hp or greater, but less than 175 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2002, 6.9 g/hp-hr;

(II) on or after October 1, 2002, but before October 1, 2006, 4.5 g/hp-hr; and

(III) on or after October 1, 2006, 2.8 g/hp-hr;

(vi) with a horsepower rating of 175 hp or greater, but less than 300 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2002, 6.9 g/hp-hr;

(II) on or after October 1, 2002, but before October 1, 2005, 4.5 g/hp-hr; and

(III) on or after October 1, 2005, 2.8 g/hp-hr;

(vii) with a horsepower rating of 300 hp or greater, but less than 600 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2005, 4.5 g/hp-hr; and

(II) on or after October 1, 2005, 2.8 g/hp-hr;

(viii) with a horsepower rating of 600 hp or greater, but less than or equal to 750 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2005, 4.5 g/hp-hr; and

(II) on or after October 1, 2005, 2.8 g/hp-hr; and

(ix) with a horsepower rating of 750 hp or greater that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2005, 6.9 g/hp-hr; and

(II) on or after October 1, 2005, 4.5 g/hp-hr;

(10) stationary gas turbines:

(A) rated at 10.0 megawatts (MW) or greater, 0.032 lb/MMBtu;

(B) rated at 1.0 MW or greater, but less than 10.0 MW, 0.15 lb/MMBtu; and

(C) rated at less than 1.0 MW, 0.26 lb/MMBtu;

(11) duct burners used in turbine exhaust ducts, the corresponding gas turbine emission specification of paragraph (10) of this subsection;

(12) pulping liquor recovery furnaces, either:

(A) 0.050 lb/MMBtu; or

(B) 1.08 pounds per air-dried ton of pulp;

(13) kilns:

(A) lime kilns, 0.66 pounds per ton of calcium oxide; and

(B) lightweight aggregate kilns, 1.25 pounds per ton of product;

(14) metallurgical furnaces:

(A) heat treating furnaces, 0.087 lb/MMBtu; and

(B) reheat furnaces, 0.062 lb/MMBtu;

(15) magnesium chloride fluidized bed dryers, a 90% reduction from the emission factor used to calculate the 1997 ozone season daily NO<sub>x</sub> emissions;

(16) incinerators, either of the following:

(A) an 80% reduction from the emission factor used to calculate the June - August 1997 daily NO<sub>x</sub> emissions. 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; or

(B) 0.030 lb/MMBtu; and

(17) as an alternative to the emission specifications in paragraphs (1) - (16) of this subsection for units with an annual capacity factor of 0.0383 or less, 0.060 lb/MMBtu. For units placed into service on or before January 1, 1997, the 1997 - 1999 average annual capacity factor must be used to determine whether the unit is eligible for the emission specification of this paragraph. For units placed into service after January 1, 1997, the annual capacity factor must be calculated from two consecutive years in the first five years of operation to determine whether the unit is eligible for the emission specification of this paragraph, using the same two consecutive years chosen for the activity level baseline. The five-year period begins at the end of the adjustment period as defined in §101.350 of this title (relating to Definitions).

(b) NO<sub>x</sub> averaging time. The averaging time for the emission specifications of subsection (a) of this section must be as specified in Chapter 101, Subchapter H, Division 3 of this title, except that electric generating facilities (EGFs) must also comply with the daily and 30-day system cap emission limitations of §117.320 of this title (relating to System Cap).

(c) Related emissions. No person shall allow the discharge into the atmosphere from any unit subject to subsection (a) of this section, emissions in excess of the following, except as provided in §117.325 of this title (relating to Alternative Case Specific Specifications) or paragraph (3) or (4) of this subsection.

(1) CO emissions must not exceed 400 ppmv at 3.0% O<sub>2</sub>, dry basis (or alternatively, 3.0 g/hp-hr for stationary internal combustion engines; or 775 ppmv at 7.0% O<sub>2</sub>, dry basis for wood fuel-fired boilers or process heaters):

(A) on a rolling 24-hour averaging period, for units equipped with CEMS or PEMS for CO; and

(B) on a one-hour average, for units not equipped with CEMS or PEMS for CO.

(2) For units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control, ammonia emissions must not exceed 10 ppmv at 3.0% O<sub>2</sub>, dry, for boilers and process heaters; 15% O<sub>2</sub>, dry, for stationary gas turbines (including duct burners used in turbine exhaust ducts), gas-fired lean-burn engines, lightweight aggregate kilns, and diesel engines; 0.0% O<sub>2</sub>, dry, for fluid catalytic cracking units (including CO boilers, CO furnaces, and catalyst regenerator vents); 7.0% O<sub>2</sub>, dry, for BIF units that were regulated as existing facilities in 40 CFR Part 266, Subpart H (as was in effect on June 9, 1993), wood-fired boilers, and incinerators; and 3.0% O<sub>2</sub>, dry, for all other units, based on:

(A) a block one-hour averaging period for units not equipped with a CEMS or PEMS for ammonia; or

(B) a rolling 24-hour averaging period for units equipped with CEMS or PEMS for ammonia.

(3) The correction of CO emissions to 3.0% O<sub>2</sub>, dry basis, in paragraph (1) of this subsection does not apply to the following units:

(A) lightweight aggregate kilns; and

(B) boilers and process heaters operating at less than 10% of maximum load and with stack O<sub>2</sub> in excess of 15% (i.e., hot-standby mode).

(4) The CO limits in paragraph (1) of this subsection do not apply to the following units:

(A) BIF units that were regulated as existing facilities in 40 CFR Part 266, Subpart H (as was in effect on June 9, 1993) and that are subject to subsection (a)(3) of this section; and

(B) incinerators subject to the CO limits of one of the following:

(i) §111.121 of this title (relating to Single-, Dual-, and Multiple-Chamber Incinerators);

(ii) §113.2072 of this title (relating to Emission Limits) for hospital/medical/infectious waste incinerators; or

(iii) 40 CFR Part 264 or 265, Subpart O, for hazardous waste incinerators.

(d) Compliance flexibility.



(1) Section 117.325 of this title is not an applicable method of compliance with the NO<sub>x</sub> emission specifications of this section.

(2) An owner or operator may petition the executive director for an alternative to the CO or ammonia specifications of this section in accordance with §117.325 of this title.

(3) An owner or operator may not use the alternative methods specified in §§117.315, 117.323, and 117.9800 of this title (relating to Alternative Plant-Wide Emission Specifications; Source Cap; and Use of Emission Credits for Compliance) to comply with the NO<sub>x</sub> emission specifications of this section. The owner or operator shall use the mass emissions cap and trade program in Chapter 101, Subchapter H, Division 3 of this title to comply with the NO<sub>x</sub> emission specifications of this section, except that electric generating facilities must also comply with the daily and 30-day system cap emission limitations of §117.320 of this title. An owner or operator may use the alternative methods specified in §117.9800 of this title for purposes of complying with §117.320 of this title.

(e) Prohibition of circumvention:

(1) the maximum rated capacity used to determine the applicability of the emission specifications in subsection (a) of this section and the initial control plan, compliance demonstration, monitoring, testing requirements, and final control plan in §§117.335, 117.340, 117.350, and 117.354 of this title (relating to Initial Demonstration of Compliance; Continuous Demonstration of Compliance; Initial Control Plan Procedures; and Final Control Plan Procedures for Attainment Demonstration Emission Specifications) must be:

(A) the greater of the following:

(i) the maximum rated capacity as of December 31, 2000; or

(ii) the maximum rated capacity after December 31, 2000; or

(B) alternatively, the maximum rated capacity authorized by a permit issued under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) on or after January 2, 2001, that the owner or operator submitted an application determined to be administratively complete by the executive director before January 2, 2001, provided that the maximum rated capacity authorized by the permit issued on or after January 2, 2001, is no less than the maximum rated capacity represented in the permit application as of January 2, 2001;

(2) 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 boiler as of December 31, 2000, but subsequently is authorized to operate as a BIF unit, is classified as a boiler for the purposes of this chapter. In another 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, is classified as a stationary gas-fired engine for the purposes of this chapter;

(3) changes after December 31, 2000, to a unit subject to subsection (a) of this section (ESAD unit) that result in increased NO<sub>x</sub> emissions from a unit not subject to subsection (a) of this section (non-ESAD unit), such as redirecting one or more fuel or waste streams

containing chemical-bound nitrogen to an incinerator with a maximum rated capacity of less than 40 MMBtu/hr or a flare, is only allowed if:

(A) the increase in NO<sub>x</sub> emissions at the non-ESAD unit is determined using a CEMS or PEMS that meets the requirements of §117.340(f) or (g) of this title, or through stack testing that meets the requirements of §117.335(e) of this title; and

(B) a deduction in allowances equal to the increase in NO<sub>x</sub> emissions at the non-ESAD unit is made as specified in §101.354 of this title (relating to Allowance Deductions);

(4) a source that met the definition of major source on December 31, 2000, is always classified as a major source for purposes of this chapter. A source that did not meet the definition of major source (i.e., was a minor source, or did not yet exist) on December 31, 2000, but at any time after December 31, 2000, becomes a major source, is from that time forward always classified as a major source for purposes of this chapter; and

(5) the availability under subsection (a)(17) of this section of an 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 subsection (a)(17) of this section than would otherwise apply to the unit.

(f) Operating restrictions. 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:

(1) for specific manufacturer's recommended testing requiring a run of over 18 consecutive hours;

(2) 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; or

(3) firewater pumps for emergency response training conducted in the months of April through October.

**§117.340. Continuous Demonstration of Compliance.**

(a) Totalizing fuel flow meters. The owner or operator of units listed in this subsection shall install, calibrate, maintain, and operate a totalizing fuel flow meter, with an accuracy of  $\pm 5\%$ , 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. The owner or operator of units with totalizing fuel flow meters installed prior to March 31, 2005, that do not meet the accuracy requirements of this subsection shall either recertify or replace existing meters to meet the  $\pm 5\%$  accuracy required as soon as practicable but no later than March 31, 2007. For the purpose of compliance with this subsection for units having pilot fuel supplied by a separate fuel system or from an unmonitored portion of the same fuel system, the fuel flow to pilots may be calculated using the manufacturer's design flow rates rather than measured with a fuel flow meter. The calculated pilot fuel flow rate must be added to the monitored fuel flow when fuel flow is totaled.

(1) The units are the following:

(A) for units that are subject to §117.305 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)), for stationary gas turbines that are exempt under §117.303(b)(7) of this title (relating to Exemptions):

(i) if individually rated more than 40 million British thermal units per hour (MMBtu/hr):

(I) boilers;

(II) process heaters;

(III) boilers and industrial furnaces that were regulated as existing facilities by 40 Code of Federal Regulations (CFR) Part 266, Subpart H, as was in effect on June 9, 1993; and

(IV) gas turbine supplemental-fired waste heat recovery units;

(ii) stationary reciprocating internal combustion engines not exempt by §117.303(a)(6), (a)(8), (b)(9), or (b)(10) of this title;

(iii) stationary gas turbines with a megawatt (MW) rating greater than or equal to 1.0 MW operated more than 850 hours per year; and

(iv) fluid catalytic cracking unit boilers using supplemental fuel;

and

(B) for units subject to §117.310 of this title (relating to Emission Specifications for Attainment Demonstration):

(i) boilers (excluding wood-fired boilers that must comply by maintaining records of fuel usage as required in §117.345(f) of this title (relating to Notification, Recordkeeping, and Reporting Requirements) or monitoring in accordance with paragraph (2)(A) of this subsection);

(ii) process heaters;

(iii) boilers and industrial furnaces that were regulated as existing facilities by 40 CFR Part 266, Subpart H, as was in effect on June 9, 1993;

(iv) duct burners used in turbine exhaust ducts;

(v) stationary, reciprocating internal combustion engines;

(vi) stationary gas turbines;

(vii) fluid catalytic cracking unit boilers and furnaces using supplemental fuel;

(viii) lime kilns;

(ix) lightweight aggregate kilns;

(x) heat treating furnaces;

(xi) reheat furnaces;

(xii) magnesium chloride fluidized bed dryers; and

(xiii) incinerators (excluding vapor streams resulting from vessel cleaning routed to an incinerator, provided that fuel usage is quantified using good engineering practices, including calculation methods in general use and accepted in new source review permitting in Texas. All other fuel and vapor streams must be monitored in accordance with this subsection.)

(2) The following are alternatives to the fuel flow monitoring requirements of paragraph (1) of this subsection.

(A) Units operating with a nitrogen oxides (NO<sub>x</sub>) and diluent continuous emissions monitoring system (CEMS) under subsection (f) of this section may monitor stack exhaust flow using the flow monitoring specifications of 40 CFR Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A.

(B) Units that vent to a common stack with a NO<sub>x</sub> and diluent CEMS under subsection (f) of this section may use a single totalizing fuel flow meter.

(C) Diesel engines operating with run time meters may meet the fuel flow monitoring requirements of this subsection through monthly fuel use records maintained for each engine.

(D) Stationary reciprocating internal combustion engines and stationary gas turbines equipped with a continuous monitoring system that continuously monitors horsepower and hours of operation are not required to install totalizing fuel flow meters. The continuous monitoring system must be installed, calibrated, maintained, and operated according to manufacturers' recommended procedures.

(b) Oxygen (O<sub>2</sub>) monitors.

(1) The owner or operator shall install, calibrate, maintain, and operate an O<sub>2</sub> monitor to measure exhaust O<sub>2</sub> concentration on the following units operated with an annual heat input greater than 2.2(10<sup>11</sup>) British thermal units per year (Btu/yr):

(A) boilers with a rated heat input greater than or equal to 100 MMBtu/hr;  
and

(B) process heaters with a rated heat input greater than or equal to 100 MMBtu/hr, except as provided in subsection (g) of this section.



(2) The following are not subject to this subsection:

(A) units listed in §117.303(b)(3) - (5) and (8) - (10) of this title;

(B) process heaters operating with a carbon dioxide CEMS for diluent monitoring under subsection (g) of this section; and

(C) wood-fired boilers.

(3) The O<sub>2</sub> monitors required by this subsection are for process monitoring (predictive monitoring inputs, boiler trim, or process control) and are only required to meet the location specifications and quality assurance procedures referenced in subsection (f) of this section if O<sub>2</sub> is the monitored diluent under that subsection. However, if new O<sub>2</sub> monitors are required as a result of this subsection, the criteria in subsection (f) of this section should be considered the appropriate guidance for the location and calibration of the monitors.

(c) NO<sub>x</sub> monitors.

(1) The owner or operator of units listed in this paragraph shall install, calibrate, maintain, and operate a CEMS or predictive emissions monitoring system (PEMS) to monitor exhaust NO<sub>x</sub>. The units are:

(A) boilers with a rated heat input greater than or equal to 250 MMBtu/hr and an annual heat input greater than 2.2(10<sup>11</sup>) Btu/yr;

(B) process heaters with a rated heat input greater than or equal to 200 MMBtu/hr and an annual heat input greater than  $2.2(10^{11})$  Btu/yr;

(C) stationary gas turbines with an MW rating greater than or equal to 30 MW operated more than 850 hours per year;

(D) units that use a chemical reagent for reduction of  $\text{NO}_x$ ;

(E) units that the owner or operator elects to comply with the  $\text{NO}_x$  emission specifications of §117.305 of this title using a pound per MMBtu (lb/MMBtu) limit on a 30-day rolling average;

(F) lime kilns and lightweight aggregate kilns;

(G) units with a rated heat input greater than or equal to 100 MMBtu/hr that are subject to §117.310(a) of this title; and

(H) fluid catalytic cracking units (including carbon monoxide (CO) boilers, CO furnaces, and catalyst regenerator vents). In addition, the owner or operator shall monitor the stack exhaust flow rate with a flow meter using the flow monitoring specifications of 40 CFR Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A.

(2) The following are not required to install CEMS or PEMS under this subsection:

(A) for purposes of §117.305 of this title, units listed §117.303(b)(3) - (5) and (8) - (10) of this title;

(B) units subject to the NO<sub>x</sub> CEMS requirements of 40 CFR Part 75; and

(C) stationary diesel engines equipped with selective catalytic reduction (SCR) systems that meet the following criteria.

(i) The SCR system must use a reductant other than the engine's fuel.

(ii) The SCR system must operate with a diagnostic system that monitors reductant quality and tank levels.

(iii) The diagnostic system must alert owners or operators to the need to refill the reductant tank before it is empty or to replace the reductant if the reductant does not meet applicable concentration specifications.

(iv) If the SCR system uses input from an exhaust NO<sub>x</sub> sensor (or other sensor) to alert owners or operators when the reductant quality is inadequate, the reductant quality does not need to be monitored separately by the diagnostic system.

(v) The reductant tank level must be monitored in accordance with the manufacturer's design to demonstrate compliance with this subparagraph.

(vi) The method of alerting an owner or operator must be a visual or audible alarm.

(3) The owner or operator shall use one of the following methods to provide substitute emissions compliance data during periods when the NO<sub>x</sub> monitor is off-line:

(A) if the NO<sub>x</sub> monitor is a CEMS:

(i) subject to 40 CFR Part 75, use the missing data procedures specified in 40 CFR Part 75, Subpart D (Missing Data Substitution Procedures); or

(ii) subject to 40 CFR Part 75, Appendix E, use the missing data procedures specified in 40 CFR Part 75, Appendix E, §2.5 (Missing Data Procedures);

(B) use 40 CFR Part 75, Appendix E monitoring in accordance with §117.1240(e) of this title (relating to Continuous Demonstration of Compliance);

(C) if the NO<sub>x</sub> monitor is a PEMS:

(i) use the methods specified in 40 CFR Part 75, Subpart D; or

(ii) use calculations in accordance with §117.8110(b) of this title (relating to Emission Monitoring System Requirements for Utility Electric Generation Sources);

or

(D) use the maximum block one-hour emission rate as measured during the initial demonstration of compliance required in §117.335(f) of this title (relating to Initial Demonstration of Compliance); or

(E) use the following procedures:

(i) for NO<sub>x</sub> monitor downtime periods less than 24 consecutive hours, use the maximum block one-hour NO<sub>x</sub> emission rate, in lb/MMBtu, from the previous 24 operational hours of the unit;

(ii) for NO<sub>x</sub> monitor downtime periods equal to or greater than 24 consecutive hours, use the maximum block one-hour NO<sub>x</sub> emission rate, in lb/MMBtu, from the previous 720 operational hours of the unit; and

(iii) if the fuel flow or stack exhaust flow monitor required by subsection (a) of this section is off-line simultaneous with the NO<sub>x</sub> monitor downtime, the owner or operator shall use the maximum block one-hour NO<sub>x</sub> pound per hour emission rate for the substitute data under clause (i) or (ii) of this subparagraph in lieu of the lb/MMBtu emission rate.

(d) Ammonia monitoring requirements. The owner or operator of units that are subject to the ammonia emission specifications of §117.310(c)(2) of this title shall comply with the ammonia monitoring requirements of §117.8130 of this title (relating to Ammonia Monitoring). Units identified in subsection (c)(2)(C) of this section are exempt from the ammonia monitoring requirements of this subsection.

(e) CO monitoring. The owner or operator shall monitor CO exhaust emissions from each unit listed in subsection (c)(1) of this section using one or more of the methods specified in §117.8120 of this title (relating to Carbon Monoxide (CO) Monitoring).

(f) CEMS requirements. The owner or operator of any CEMS used to meet a pollutant monitoring requirement of this section shall comply with the following.

(1) The CEMS must meet the requirements of §117.8100(a) of this title (relating to Emission Monitoring System Requirements for Industrial, Commercial, and Institutional Sources).

(2) For units subject to §117.310 of this title:

(A) all bypass stacks must be monitored, in order to quantify emissions directed through the bypass stack:

(i) if the CEMS is located upstream of the bypass stack, then:

(I) no effluent streams from other potential sources of NO<sub>x</sub> emissions may be introduced between the CEMS and the bypass stack; and

(II) the owner or operator shall install, operate, and maintain a continuous monitoring system to automatically record the date, time, and duration of each event when the bypass stack is open; and

(ii) process knowledge and engineering calculations may be used to determine volumetric flow rate for purposes of calculating mass emissions for each event when the bypass stack is open, provided that:

(I) the maximum potential calculated flow rate is used for emission calculations; and

(II) the owner or operator maintains, and makes available upon request by the executive director, records of all process information and calculations used for this determination; and

(B) exhaust streams of units that vent to a common stack do not need to be analyzed separately.

(g) PEMS requirements. The owner or operator of any PEMS used to meet a pollutant monitoring requirement of this section shall comply with the following.

(1) The PEMS must predict the pollutant emissions in the units of the applicable emission specifications of this division (relating to Houston-Galveston-Brazoria Ozone Nonattainment Area Major Sources).

(2) The PEMS must meet the requirements of §117.8100(b) of this title.

(h) Engine monitoring. The owner or operator of any stationary gas engine subject to §117.305 of this title that is not equipped with NO<sub>x</sub> CEMS or PEMS shall stack test engine NO<sub>x</sub> and CO emissions as specified in §117.8140(a) of this title (relating to Emission Monitoring for Engines). The owner or operator of any stationary internal combustion engine subject to §117.310 of this title that is not equipped with NO<sub>x</sub> CEMS or PEMS shall stack test engine NO<sub>x</sub> and CO emissions as specified in §117.8140(a) and (b) of this title.

(i) Monitoring for stationary gas turbines less than 30 MW. The owner or operator of any stationary gas turbine rated less than 30 MW using steam or water injection to comply with the emission specifications of §117.305 or §117.315 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT) and Alternative Plant-Wide Emission Specifications) shall either:

(1) install, calibrate, maintain, and operate a NO<sub>x</sub> CEMS or PEMS in compliance with this section and monitor CO in compliance with subsection (e) of this section; or

(2) install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the average hourly fuel and steam or water consumption:

(A) the system must be accurate to within  $\pm 5.0\%$ ;

(B) the steam-to-fuel or water-to-fuel ratio monitoring data must constitute the method for demonstrating continuous compliance with the applicable emission specification of §117.305 or §117.315 of this title; and



(C) steam or water injection control algorithms are subject to executive director approval.

(j) Run time meters. The owner or operator of any stationary gas turbine or stationary internal combustion engine claimed exempt using the exemption of §117.303(a)(6)(D), (a)(10), (a)(11), (b)(2) or (b)(9) of this title shall record the operating time with an elapsed run time meter. Any run time meter installed on or after October 1, 2001, must be non-resettable.

(k) Hydrogen (H<sub>2</sub>) monitoring. The owner or operator claiming the H<sub>2</sub> multiplier of §117.305(b)(6) or §117.315(g)(4) or (h) of this title shall sample, analyze, and record every three hours the fuel gas composition to determine the volume percent H<sub>2</sub>.

(1) The total H<sub>2</sub> volume flow in all gaseous fuel streams to the unit must be divided by the total gaseous volume flow to determine the volume percent of H<sub>2</sub> in the fuel supply to the unit.

(2) Fuel gas analysis must be tested according to American Society for Testing and Materials (ASTM) Method D1945-81 or ASTM Method D2650-83, or other methods that are demonstrated to the satisfaction of the executive director and the United States Environmental Protection Agency to be equivalent.

(3) A gaseous fuel stream containing 99% H<sub>2</sub> by volume or greater may use the following procedure to be exempted from the sampling and analysis requirements of this subsection.

(A) A fuel gas analysis must be performed initially using one of the test methods in this subsection to demonstrate that the gaseous fuel stream is 99% H<sub>2</sub> by volume or greater.

(B) The process flow diagram of the process unit that is the source of the H<sub>2</sub> must be supplied to the executive director to illustrate the source and supply of the hydrogen stream.

(C) The owner or operator shall certify that the gaseous fuel stream containing H<sub>2</sub> will continuously remain, as a minimum, at 99% H<sub>2</sub> by volume or greater during its use as a fuel to the combustion unit.

(l) Data used for compliance.

(1) After the initial demonstration of compliance required by §117.335 of this title, the methods required in this section must be used to determine compliance with the emission specifications of §117.305 of this title. For enforcement purposes, the executive director may also use other commission compliance methods to determine whether the source is in compliance with applicable emission limitations.

(2) For units subject to §117.310(a) of this title, the methods required in this section must be used in conjunction with the requirements of Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program) to determine compliance. For enforcement purposes, the executive director may also use other commission

compliance methods to determine whether the source is in compliance with applicable emission limitations.

(m) Enforcement of NO<sub>x</sub> RACT limits. If compliance with §117.305 of this title is selected, no unit subject to §117.305 of this title may be operated at an emission rate higher than that allowed by the emission specifications of §117.305 of this title. If compliance with §117.315 of this title is selected, no unit subject to §117.315 of this title may be operated at an emission rate higher than that approved by the executive director under §117.352(b) of this title (relating to Final Control Plan Procedures for Reasonably Available Control Technology).

(n) Loss of NO<sub>x</sub> RACT exemption. The owner or operator of any unit claimed exempt from the emission specifications of this division using the low annual capacity factor exemption of §117.303(b)(2) of this title shall notify the executive director within seven days if the Btu/yr or hour-per-year limit specified in §117.10 of this title (relating to Definitions), as appropriate, is exceeded.

(1) If the limit is exceeded, the exemption from the emission specifications of this division is permanently withdrawn.

(2) Within 90 days after loss of the exemption, the owner or operator shall submit a compliance plan detailing a plan to meet the applicable compliance limit as soon as possible, but no later than 24 months after exceeding the limit. The plan must include a schedule of increments of progress for the installation of the required control equipment.

(3) The schedule is subject to the review and approval of the executive director.

(o) Testing and operating requirements. The owner or operator of units that are subject to §117.310(a) of this title shall comply with the following.

(1) The owner or operator of units that are subject to §117.310(a) of this title shall test the units as specified in §117.335 of this title in accordance with the schedule specified in §117.9020(2) of this title (relating to Compliance Schedule for Houston-Galveston-Brazoria Ozone Nonattainment Area Major Sources).

(2) Each stationary internal combustion engine controlled with nonselective catalytic reduction must be equipped with an automatic air-fuel ratio (AFR) controller that operates on exhaust O<sub>2</sub> or CO control and maintains AFR in the range required to meet the engine's applicable emission limits.

(p) Emission allowances. The owner or operator of units that are subject to §117.310(a) of this title shall comply with the following.

(1) The NO<sub>x</sub> testing and monitoring data of subsections (a), (c), (f), (g), and (o) of this section, together with the level of activity, as defined in §101.350 of this title (relating to Definitions), must be used to establish the emission factor for calculating actual emissions for compliance with Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program).

(2) For units not operating with CEMS or PEMS, the following apply.

(A) Retesting as specified in subsection (o)(1) of this section is required within 60 days after any modification that could reasonably be expected to increase the NO<sub>x</sub> emission rate.

(B) Retesting as specified in subsection (o)(1) of this section may be conducted 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), flue gas recirculation, and fuel-lean and conventional (fuel-rich) reburn.

(C) The NO<sub>x</sub> emission rate determined by the retesting must be used to establish a new emission factor to calculate actual emissions from the date of the retesting forward. Until the date of the retesting, the previously determined emission factor must be used to calculate actual emissions for compliance with Chapter 101, Subchapter H, Division 3 of this title.

(D) All test reports must be submitted to the executive director for review and approval within 60 days after completion of the testing.

(3) The emission factor in paragraph (1) or (2) of this subsection is multiplied by the unit's level of activity to determine the unit's actual emissions for compliance with Chapter 101, Subchapter H, Division 3 of this title.

**SUBCHAPTER B: COMBUSTION CONTROL AT MAJOR INDUSTRIAL COMMERCIAL, AND  
INSTITUTIONAL SOURCES IN OZONE NONATTAINMENT AREAS**

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

**§§117.410, 117.440**

**Statutory Authority**

The amended rules are adopted under Texas Water Code (TWC), §5.102, concerning general powers; §5.103, concerning Rules; TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §7.002, concerning Enforcement Authority, which authorizes the commission to enforce the provisions of the Water Code and the Health and Safety Code within the commission's jurisdiction; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The amendments are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning the State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants; and THSC, §382.021, concerning Sampling

Methods and Procedures.

The adopted amendments implement TWC, §§5.102, 5.103 and 7.002; and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

**§117.410. Emission Specifications for Eight-Hour Attainment Demonstration.**

(a) Emission specifications for eight-hour ozone attainment demonstration. For units located in Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, or Tarrant County, no person shall allow the discharge into the atmosphere nitrogen oxides (NO<sub>x</sub>) emissions in excess of the following emission specifications, in accordance with the applicable schedule in §117.9030(b) of this title (relating to Compliance Schedule for Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Major Sources), except as provided in subsection (d) of this section:

(1) gas-fired boilers:

(A) with a maximum rated capacity equal to or greater than 100 million British thermal units per hour (MMBtu/hr), 0.020 pounds per million British thermal units (lb/MMBtu);

(B) with a maximum rated capacity equal to or greater than 40 MMBtu/hr, but less than 100 MMBtu/hr, 0.030 lb/MMBtu; and

(C) with a maximum rated capacity less than 40 MMBtu/hr, 0.036 lb/MMBtu (or alternatively, 30 parts per million by volume (ppmv) NO<sub>x</sub>, at 3.0% oxygen (O<sub>2</sub>), dry basis);

(2) liquid-fired boilers, 2.0 pounds per 1,000 gallons of liquid burned;

(3) process heaters:

(A) with a maximum rated capacity equal to or greater than 40 MMBtu/hr, 0.025 lb/MMBtu; and

(B) with a maximum rated capacity less than 40 MMBtu/hr, 0.036 lb/MMBtu (or alternatively, 30 ppmv, at 3.0% O<sub>2</sub>, dry basis);

(4) stationary, reciprocating internal combustion engines:

(A) gas-fired rich-burn engines:

(i) fired on landfill gas, 0.60 grams per horsepower-hour (g/hp-hr);

and

(ii) all others, 0.50 g/hp-hr;

(B) gas-fired lean-burn engines:



(i) placed into service before June 1, 2007, that have not been modified, reconstructed, or relocated on or after June 1, 2007, 0.70 g/hp-hr; and

(ii) placed into service, modified, reconstructed, or relocated on or after June 1, 2007:

(I) fired on landfill gas, 0.60 g/hp-hr; and

(II) all others, 0.50 g/hp-hr;

(C) dual-fuel engines, 0.50 g/hp-hr;

(D) diesel engines, excluding dual-fuel engines, placed into service before March 1, 2009, that have not been modified, reconstructed, or relocated on or after March 1, 2009, the lower of 11.0 g/hp-hr or the emission rate established by testing, monitoring, manufacturer's guarantee, or manufacturer's other data;

(E) for diesel engines, excluding dual-fuel engines, not subject to subparagraph (D) of this paragraph:

(i) with a horsepower (hp) rating of less than 50 hp that are installed, modified, reconstructed, or relocated on or after March 1, 2009, 5.0 g/hp-hr;

(ii) with a hp rating of 50 hp or greater, but less than 100 hp, that are installed, modified, reconstructed, or relocated on or after March 1, 2009, 3.3 g/hp-hr;

(iii) with a hp rating of 100 hp or greater, but less than 750 hp, that are installed, modified, reconstructed, or relocated on or after March 1, 2009, 2.8 g/hp-hr; and

(iv) with a hp rating of 750 hp or greater that are installed, modified, reconstructed, or relocated on or after March 1, 2009, 4.5 g/hp-hr; and

(F) for the purposes of this paragraph, the terms "modification" and "reconstruction" have the meanings defined in §116.10 of this title (relating to General Definitions) and 40 Code of Federal Regulations (CFR) §60.15 (December 16, 1975), respectively, and the term "relocated" means to newly install at an account, as defined in §101.1 of this title (relating to Definitions), a used engine from anywhere outside that account;

(5) stationary gas turbines:

(A) rated at 10 megawatts (MW) or greater, 0.032 lb/MMBtu;

(B) rated at 1.0 MW or greater, but less than 10 MW, 0.15 lb/MMBtu; and

(C) rated at less than 1.0 MW, 0.26 lb/MMBtu;

(6) duct burners used in turbine exhaust ducts, the corresponding gas turbine emission specification of paragraph (5) of this subsection;

(7) kilns:

(A) lime kilns, 3.7 pounds per ton (lb/ton) of calcium oxide, demonstrated

either:

(i) on an individual kiln basis; or

(ii) on a site-wide production rate weighted average basis, using

the following equation:

**Figure: 30 TAC §117.410(a)(7)(A)(ii) (No changes)**

(B) brick and ceramic kilns, one of the following:

(i) a 40% reduction from the daily NO<sub>x</sub> emissions reported to the 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;

(ii) 0.175 lb/ton of product for brick kilns; or

(iii) 0.27 lb/ton of product for ceramic kilns;

(8) metallurgical furnaces:

(A) heat treating furnaces, 0.087 lb/MMBtu. For heat treating furnaces equipped with NO<sub>x</sub> continuous emissions monitoring systems (CEMS) or predictive emissions monitoring systems (PEMS) that comply with §117.440 of this title (relating to Continuous Demonstration of Compliance), this emission specification only applies from March 1 to October 31 of any calendar year;

(B) reheat furnaces, 0.10 lb/MMBtu. For reheat furnaces equipped with NO<sub>x</sub> CEMS or PEMS that comply with §117.440 of this title, this emission specification only applies from March 1 to October 31 of any calendar year; and

(C) lead smelting blast (cupola) and reverberatory furnaces used in conjunction, the combined rate of 0.45 lb/ton product;

(9) incinerators, either of the following:

(A) an 80% reduction from the daily NO<sub>x</sub> emissions reported to the 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; or

(B) 0.030 lb/MMBtu;

(10) glass and fiberglass melting furnaces:

(A) container glass melting furnaces:

(i) 4.0 lb/ton of glass pulled during furnace operation equal to or greater than 25% of the permitted glass production capacity; and

(ii) the applicable maximum allowable pound per hour NO<sub>x</sub> permit limit in a permit issued before June 1, 2007, during furnace operation less than 25% of the permitted glass production capacity;

(B) mineral wool-type cold-top electric fiberglass melting furnaces, 4.0 lb/ton of product pulled;

(C) mineral wool-type fiberglass regenerative furnaces, 1.45 lb/ton of product pulled; and

(D) mineral wool-type fiberglass non-regenerative gas-fired furnaces, 3.1 lb/ton product pulled;

(11) gas-fired curing ovens used for the production of mineral wool-type or textile-type fiberglass, 0.036 lb/MMBtu;

(12) natural gas-fired ovens and heaters, 0.036 lb/MMBtu;

(13) natural gas-fired dryers:

(A) dryers used in organic solvent, printing ink, clay, brick, ceramic tile, calcining, and vitrifying processes, 0.036 lb/MMBtu;

(B) spray dryers used in ceramic tile manufacturing processes, 0.15 lb/MMBtu; and

(14) as an alternative to the emission specifications in paragraphs (1) - (13) of this subsection for units with an annual capacity factor of 0.0383 or less, 0.060 lb/MMBtu. The capacity factor as of December 31, 2000, must be used to determine whether the unit is eligible for the emission specification of this paragraph. A 12-month rolling average must be used to determine the annual capacity factor for units placed into service after December 31, 2000.

(b) NO<sub>x</sub> averaging time. The emission specifications of subsection (a) of this section apply:

(1) if the unit is operated with a NO<sub>x</sub> CEMS or PEMS under §117.440 of this title, either as:

(A) a rolling 30-day average period, in the units of the applicable standard;

(B) a block one-hour average, in the units of the applicable standard, or alternatively;

(C) a block one-hour average, in pounds per hour, for boilers and process heaters, calculated as the product of the boiler's or process heater's maximum rated capacity and its applicable specification in lb/MMBtu; and

(2) if the unit is not operated with a NO<sub>x</sub> CEMS or PEMS under §117.440 of this title, a block one-hour average, in the units of the applicable standard. Alternatively for boilers and process heaters, the emission specification may be applied in pounds per hour, as specified in paragraph (1)(C) of this subsection.

(c) Related emissions. No person shall allow the discharge into the atmosphere from any unit subject to NO<sub>x</sub> emission specifications in subsection (a) of this section, emissions in excess of the following, except as provided in §117.425 of this title (relating to Alternative Case Specific Specifications) or paragraph (3) or (4) of this subsection.

(1) Carbon monoxide (CO) emissions must not exceed 400 ppmv at 3.0% O<sub>2</sub>, dry basis (or alternatively, 3.0 g/hp-hr for stationary internal combustion engines; or 775 ppmv at 7.0% O<sub>2</sub>, dry basis for wood fuel-fired boilers or process heaters):

(A) on a rolling 24-hour averaging period, for units equipped with CEMS or PEMS for CO; and

(B) on a block one-hour averaging period, for units not equipped with CEMS or PEMS for CO.

(2) For units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control, ammonia emissions must not exceed 10 ppmv at 3.0% O<sub>2</sub>, dry, for boilers and process heaters; 15% O<sub>2</sub>, dry, for stationary gas turbines (including duct burners used in turbine exhaust ducts), gas-fired lean-burn engines, and diesel engines; 7.0% O<sub>2</sub>, dry, for incinerators; and 3.0% O<sub>2</sub>, dry, for all other units, based on:

(A) a block one-hour averaging period for units not equipped with a CEMS or PEMS for ammonia; and

(B) a rolling 24-hour averaging period for units equipped with CEMS or PEMS for ammonia.

(3) The correction of CO emissions to 3.0% O<sub>2</sub>, dry basis, in paragraph (1) of this subsection does not apply to boilers and process heaters operating at less than 10% of maximum load and with stack O<sub>2</sub> in excess of 15% (i.e., hot-standby mode).

(4) The CO specifications in paragraph (1) of this subsection do not apply to incinerators subject to the CO limits of one of the following:

(A) §111.121 of this title (relating to Single-, Dual-, and Multiple-Chamber Incinerators);

(B) §113.2072 of this title (relating to Emission Limits) for hospital/medical/infectious waste incinerators; or



(C) 40 CFR Part 264 or 265, Subpart O, for hazardous waste incinerators.

(d) Compliance flexibility.

(1) An owner or operator may use any of the following alternative methods to comply with the NO<sub>x</sub> emission specifications of this section:

(A) §117.423 of this title (relating to Source Cap); or

(B) §117.9800 of this title (relating to Use of Emission Credits for Compliance).

(2) Section 117.425 of this title is not an applicable method of compliance with the NO<sub>x</sub> emission specifications of this section.

(3) An owner or operator may petition the executive director for an alternative to the CO or ammonia specifications of this section in accordance with §117.425 of this title.

(e) Prohibition of circumvention.

(1) The maximum rated capacity used to determine the applicability of the emission specifications in this section and the initial compliance demonstration, monitoring, testing requirements, and final control plan in §§117.435, 117.440, and 117.454 of this title (relating to Initial Demonstration of Compliance; Continuous Demonstration of Compliance;

and Final Control Plan Procedures for Attainment Demonstration Emission Specifications) must be the greater of the following:

(A) the maximum rated capacity as of December 31, 2000;

(B) the maximum rated capacity after December 31, 2000; or

(C) the maximum rated capacity authorized by a permit issued under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) after December 31, 2000.

(2) 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, is classified as a stationary gas-fired engine for the purposes of this chapter.

(3) Changes after December 31, 2000, to a unit subject to an emission specification in this section that result in increased NO<sub>x</sub> emissions from a unit not subject to an emission specification of this section, such as redirecting one or more fuel or waste streams containing chemical-bound nitrogen to an incinerator with a maximum rated capacity of less than 40 MMBtu/hr, or a flare, are only allowed if:

(A) the increase in NO<sub>x</sub> emissions at the unit not subject to this section is determined using a CEMS or PEMS that meets the requirements of §117.440 of this title, or through stack testing that meets the requirements of §117.435 of this title; and

(B) emission credits equal to the increase in NO<sub>x</sub> emissions at the unit not subject to this section are obtained and used in accordance with §117.9800 of this title.

(4) A source that met the definition of major source on December 31, 2000, is always classified as a major source for purposes of this chapter. A source that did not meet the definition of major source (i.e., was a minor source, or did not yet exist) on December 31, 2000, but becomes a major source at any time after December 31, 2000, is from that time forward always classified as a major source for purposes of this chapter.

(5) The availability under subsection (a)(14) of this section of an emission specification for units with an annual capacity factor of 0.0383 or less is based on the unit's status as of December 31, 2000. Reduced operation after December 31, 2000, cannot be used to qualify for a more lenient emission specification under subsection (a)(14) of this section than would otherwise apply to the unit.

(f) Operating restrictions. No person may start or operate any stationary diesel or dual-fuel engine for testing or maintenance of the engine between the hours of 6:00 a.m. and noon, except:

(1) for specific manufacturer's recommended testing requiring a run of over 18 consecutive hours;

(2) 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; or

(3) firewater pumps for emergency response training conducted from April 1 through October 31.

**§117.440. Continuous Demonstration of Compliance.**

(a) Totalizing fuel flow meters. The owner or operator of units listed in this subsection shall install, calibrate, maintain, and operate a totalizing fuel flow meter, with an accuracy of  $\pm$  5%, 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. The owner or operator must continuously operate the totalizing fuel flow meter at least 95% of the time when the unit is operating during a calendar year. For the purpose of compliance with this subsection for units having pilot fuel supplied by a separate fuel system or from an unmonitored portion of the same fuel system, the fuel flow to pilots may be calculated using the manufacturer's design flow rates rather than measured with a fuel flow meter. The calculated pilot fuel flow rate must be added to the monitored fuel flow when fuel flow is totaled.

(1) The units are the following units subject to §117.405 (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) or §117.410 of this title (relating to Emission Specifications for Eight-Hour Attainment Demonstrations):

(A) boilers (excluding wood-fired boilers that must comply by maintaining records of fuel usage as required in §117.445(f) of this title (relating to Notification, Recordkeeping, and Reporting Requirements) or monitoring in accordance with paragraph (2)(A) of this subsection);

(B) process heaters;

(C) duct burners used in turbine exhaust ducts;

(D) stationary, reciprocating internal combustion engines;

(E) stationary gas turbines;

(F) lime kilns

(G) brick and ceramic kilns;

(H) heat treating furnaces;

(I) reheat furnaces;

(J) lead smelting blast (cupola) and reverberatory furnaces;

(K) glass and fiberglass/mineral wool melting furnaces;

(L) incinerators (excluding vapor streams resulting from vessel cleaning routed to an incinerator, provided that fuel usage is quantified using good engineering practices, including calculation methods in general use and accepted in new source review permitting in Texas. All other fuel and vapor streams must be monitored in accordance with this subsection);

(M) gas-fired glass, fiberglass, and mineral wool curing ovens;

(N) natural gas-fired ovens and heaters; and

(O) natural gas-fired dryers used in organic solvent, printing ink, clay, brick, ceramic, and calcining and vitrifying processes.

(2) The following are alternatives to the fuel flow monitoring requirements of paragraph (1) of this subsection.

(A) Units operating with a nitrogen oxides (NO<sub>x</sub>) and diluent continuous emissions monitoring system (CEMS) under subsection (f) of this section may monitor stack exhaust flow using the flow monitoring specifications of 40 Code of Federal Regulations (CFR) Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A.

(B) Units that vent to a common stack with a NO<sub>x</sub> and diluent CEMS under subsection (f) of this section may use a single totalizing fuel flow meter.

(C) Diesel engines operating with run time meters may meet the fuel flow monitoring requirements of this subsection through monthly fuel use records maintained for each engine.

(D) Stationary reciprocating internal combustion engines and gas turbines equipped with a continuous monitoring system that continuously monitors horsepower and hours of operation are not required to install totalizing fuel flow meters. The continuous monitoring system must be installed, calibrated, maintained, and operated according to manufacturers' recommended procedures.

(b) Oxygen (O<sub>2</sub>) monitors.

(1) The owner or operator shall install, calibrate, maintain, and operate an O<sub>2</sub> monitor to measure exhaust O<sub>2</sub> concentration on the following units operated with an annual heat input greater than 2.2(10<sup>11</sup>) British thermal units per year (Btu/yr):

(A) boilers with a rated heat input greater than or equal to 100 million British thermal units per hour (MMBtu/hr); and

(B) process heaters with a rated heat input greater than or equal to 100 MMBtu/hr, except:

(i) as provided in subsection (g) of this section; and

(ii) for process heaters operating with a carbon dioxide (CO<sub>2</sub>) CEMS for diluent monitoring under subsection (f) of this section.

(2) The O<sub>2</sub> monitors required by this subsection are for process monitoring (predictive monitoring inputs, boiler trim, or process control) and are only required to meet the location specifications and quality assurance procedures referenced in subsection (f) of this section if O<sub>2</sub> is the monitored diluent under that subsection. However, if new O<sub>2</sub> monitors are required as a result of this subsection, the criteria in subsection (f) of this section should be considered the appropriate guidance for the location and calibration of the monitors.

(c) NO<sub>x</sub> monitors.

(1) The owner or operator of units listed in this paragraph shall install, calibrate, maintain, and operate a CEMS or predictive emissions monitoring system (PEMS) to monitor exhaust NO<sub>x</sub>. The units are:

(A) units with a rated heat input greater than or equal to 100 MMBtu/hr that are subject to §117.405(a) or (b) or §117.410(a) of this title;

(B) stationary gas turbines with a megawatt (MW) rating greater than or equal to 30 MW operated more than 850 hours per year;

(C) units that use a chemical reagent for reduction of NO<sub>x</sub>;



(D) units that the owner or operator elects to comply with the NO<sub>x</sub> emission specifications of §117.405(a) or (b) of this title or §117.410(a) of this title using a pound per MMBtu (lb/MMBtu) limit on a 30-day rolling average;

(E) lime kilns; and

(F) brick kilns and ceramic kilns.

(2) The following units are not required to install CEMS or PEMS under this subsection;

(A) units subject to the NO<sub>x</sub> CEMS requirements of 40 CFR Part 75; and

(B) stationary diesel engines equipped with selective catalytic reduction (SCR) systems that meet the following criteria.

(i) The SCR system must use a reductant other than the engine's fuel.

(ii) The SCR system must operate with a diagnostic system that monitors reductant quality and tank levels.

(iii) The diagnostic system must alert owners or operators to the need to refill the reductant tank before it is empty or to replace the reductant if the reductant does not meet applicable concentration specifications.

(iv) If the SCR system uses input from an exhaust NO<sub>x</sub> sensor (or other sensor) to alert owners or operators when the reductant quality is inadequate, the reductant quality does not need to be monitored separately by the diagnostic system.

(v) The reductant tank level must be monitored in accordance with the manufacturer's design to demonstrate compliance with this subparagraph.

(vi) The method of alerting an owner or operator must be a visual or audible alarm.

(3) The owner or operator shall use one of the following methods to provide substitute emissions compliance data during periods when the NO<sub>x</sub> monitor is off-line:

(A) if the NO<sub>x</sub> monitor is a CEMS:

(i) subject to 40 CFR Part 75, use the missing data procedures specified in 40 CFR Part 75, Subpart D (Missing Data Substitution Procedures); or

(ii) subject to 40 CFR Part 75, Appendix E, use the missing data procedures specified in 40 CFR Part 75, Appendix E, §2.5 (Missing Data Procedures);

(B) use 40 CFR Part 75, Appendix E monitoring in accordance with §117.1340(d) of this title (relating to Continuous Demonstration of Compliance);

(C) if the NO<sub>x</sub> monitor is a PEMS:

(i) use the methods specified in 40 CFR Part 75, Subpart D; or

(ii) use calculations in accordance with §117.8110(b) of this title (relating to Emission Monitoring System Requirements for Utility Electric Generation Sources);  
or

(D) the maximum block one-hour emission rate as measured during the initial demonstration of compliance required in §117.435(e) of this title (relating to Initial Demonstration of Compliance).

(d) Ammonia monitoring requirements. The owner or operator of any unit subject to §117.405(a) or (b) or §117.410(a) of this title and the ammonia emission specification of §117.405(d)(2) or §117.410(c)(2) of this title shall monitor ammonia emissions from the unit according to the requirements of §117.8130 of this title (relating to Ammonia Monitoring). Units identified in subsection (c)(2)(B) of this section are exempt from the ammonia monitoring requirements of this subsection.

(e) Carbon monoxide (CO) monitoring. The owner or operator shall monitor CO exhaust emissions from each unit listed in subsection (c)(1) of this section using one or more of the methods specified in §117.8120 of this title (relating to Carbon Monoxide (CO) Monitoring).

(f) CEMS requirements. The owner or operator of any CEMS used to meet a pollutant monitoring requirement of this section shall comply with the requirements of §117.8100(a) of

this title (relating to Emission Monitoring System Requirements for Industrial, Commercial, and Institutional Sources).

(g) PEMS requirements. The owner or operator of any PEMS used to meet a pollutant monitoring requirement of this section shall comply with the following.

(1) The PEMS must predict the pollutant emissions in the units of the applicable emission limitations of this division (relating to Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Major Sources).

(2) The PEMS must meet the requirements of §117.8100(b) of this title.

(h) Engine monitoring. The owner or operator of any stationary gas engine subject to the emission specifications of this division shall stack test engine NO<sub>x</sub> and CO emissions as specified in §117.8140(a) of this title (relating to Emission Monitoring for Engines).

(i) Run time meters. The owner or operator of any stationary gas turbine or stationary internal combustion engine claimed exempt using the exemption of §117.403(a)(7)(D), (8), or (9) or (b)(2)(D) of this title (relating to Exemptions) shall record the operating time with a non-resettable elapsed run time meter.

(j) Data used for compliance. After the initial demonstration of compliance required by §117.435 of this title, the methods required in this section must be used to determine compliance with the emission specifications of §117.405(a) or (b) or §117.410(a) of this title. For enforcement purposes, the executive director may also use other commission compliance

methods to determine whether the unit is in compliance with applicable emission specifications.

(k) Testing requirements.

(1) The owner or operator of units that are subject to the emission specifications of §117.405(a) or (b) or §117.410(a) of this title shall test the units as specified in §117.435 of this title in accordance with the applicable schedule specified in §117.9030 of this title (relating to Compliance Schedule for Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Major Sources).

(2) The owner or operator of any unit not equipped with CEMS or PEMS that are subject to the emission specifications of §117.405(a) or (b) of this title or §117.410(a) of this title shall retest the unit as specified in §117.435 of this title within 60 days after any modification that could reasonably be expected to increase the NO<sub>x</sub> emission rate.

**SUCHAPTER C: COMBUSTION CONTROL AT MAJOR UTILITY ELECTRIC GENERATION  
SOURCES IN OZONE NONATTAINMENT AREAS  
DIVISION 2: BEXAR COUNTY OZONE NONATTAINMENT AREA UTILITY ELECTRIC  
GENERATION SOURCES**

**§§117.1100, 117.1103, 117.1105, 117.1120, 117.1140, 117.1145, 117.1152**

**Statutory Authority**

The new rules are adopted under Texas Water Code (TWC), §5.102, concerning general powers; §5.103, concerning Rules; TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §7.002, concerning Enforcement Authority, which authorizes the commission to enforce the provisions of the Water Code and the Health and Safety Code within the commission's jurisdiction; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new rules are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning the State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants; and THSC, §382.021, concerning Sampling

Methods and Procedures.

The adopted new rules implement TWC, §§5.102, 5.103 and 7.002; and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

**§117.1100. Applicability.**

(a) This division applies to the following units used in an electric power generating system, as defined in §117.10 of this title (relating to Definitions), located in the Bexar County ozone nonattainment area:

- (1) utility boilers;
- (2) auxiliary steam boilers;
- (3) stationary gas turbines; and
- (4) duct burners used in turbine exhaust ducts.

(b) This division is applicable for the life of each affected unit in an electric power generating system or until this division or sections of this title that are applicable to an affected unit are rescinded.

**§117.1103. Exemptions.**

The following units are exempt from this division, except as specified in §117.1140 and 117.1145 of this title (relating to Demonstration of Compliance; and Notification, Recordkeeping, and Reporting Requirements):

(1) utility boilers or auxiliary steam boilers with an annual heat input less than or equal to 220,000 million British thermal units per year, on a rolling 12-month basis;

(2) stationary gas turbines that operate less than 850 hours per year, on a rolling 12-month basis; or

(3) stationary gas turbines that are used solely to power other gas turbines or engines during startups.

**§117.1105. Emission Specifications for Reasonably Available Control Technology (RACT).**

(a) Emission Specifications. No person shall allow the discharge into the atmosphere nitrogen oxides (NO<sub>x</sub>) emissions in excess of the following emission specifications, in accordance with the applicable schedule in §117.9110 of this title (relating to Compliance Schedule for Bexar County Ozone Nonattainment Area Utility Electric Generation Sources):

(1) stationary gas turbines, including duct burners used in turbine exhaust ducts, 0.032 pound per million British thermal units (lb/MMBtu) heat input on a rolling 30-day average basis;



(2) utility boilers or auxiliary steam boilers, while firing natural gas or a combination of natural gas and oil, 0.20 lb/MMBtu heat input on a rolling 30-day average basis;

(3) utility boilers or auxiliary steam boilers controlled with selective catalytic reduction, while firing coal, 0.069 lb/MMBtu heat input on a rolling 30-day average basis;

(4) utility boilers or auxiliary steam boilers not controlled with selective catalytic reduction, while firing coal, 0.20 lb/MMBtu heat input on a rolling 30-day average basis; and

(5) utility boilers or auxiliary steam boilers, while firing oil only, 0.30 lb/MMBtu heat input on an hourly basis.

(b) Compliance flexibility. An owner or operator may use any of the following alternative methods to comply with the NO<sub>x</sub> emission specifications of this section:

(1) §117.1120 of this title (relating to System Cap); or

(2) §117.9800 of this title (relating to Use of Emission Credits for Compliance).

**§117.1120. System Cap.**

(a) An owner or operator of an electric generating facility (EGF), as defined in §117.10 of this title (relating to Definitions), may achieve compliance with the nitrogen oxides (NO<sub>x</sub>) emission specifications in §117.1105 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) by achieving equivalent NO<sub>x</sub> emission

reductions obtained by compliance with a system cap emission limitation in accordance with the requirements of this section.

(b) Each EGF within an electric power generating system, as defined in §117.10 of this title, that started operation before January 1, 2025, and is subject to §117.1105 of this title, must be included in the system cap.

(c) The system cap must be calculated using the following equation.

Figure: 30 TAC §117.1120(c)

$$\text{System Cap} = \sum_{i=1}^N (H_i \times R_i)$$

Where:

System Cap = NO<sub>x</sub> emission cap for an electric power generating system in pounds per day on a rolling 30-day average basis;

i = each EGF in the electric power generating system;

N = the total number of EGFs in the system cap;

H<sub>i</sub> = the average of the daily heat input for each EGF in the system cap, in million British thermal units per day, as certified to the executive director, for any 30-day period in

2019, 2020, 2021, 2022, or 2023; the same 30-day period must be used for all EGFs in the emission cap; and

$R_i$  = the applicable emission specification in §117.1105 of this title for each EGF.

(d) Continuous compliance with the system cap must be demonstrated in accordance with the requirements in §117.1140 of this title (relating to Demonstration of Compliance).

(e) The owner or operator shall maintain daily records indicating the NO<sub>x</sub> emissions and fuel usage from each EGF and summations of total NO<sub>x</sub> emissions and fuel usage for all EGFs under the system cap on a daily basis. Records must also be retained in accordance with §117.1145 of this title (relating to Notification, Recordkeeping, and Reporting Requirements).

(f) The owner or operator shall report any exceedance of the system cap emission limit within three calendar days to the appropriate regional office. The owner or operator shall then follow up no later than 60 calendar days after the exceedance with a written report to the regional office that includes an analysis of the cause for the exceedance with appropriate data to demonstrate the amount of emissions in excess of the system cap and the necessary corrective actions taken by the company to assure future compliance. Additionally, the owner or operator shall submit semiannual reports for the monitoring systems in accordance with §117.1145 of this title.

(g) The owner or operator shall demonstrate compliance with the system cap in accordance with the schedule specified in §117.9110 of this title (relating to Compliance Schedule for Bexar County Ozone Nonattainment Area Utility Electric Generation Sources).

(h) An EGF that is permanently retired or decommissioned and rendered inoperable may be included in the system cap emission limit provided that the permanent shutdown occurred on or after January 1, 2025.

(i) Emission reductions from shutdowns or curtailments that have been used for netting or offset purposes under the requirements of Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) may not be included in the in the calculation of the system cap in subsection (c) of the section.

(j) For the purposes of determining compliance with the system cap, the contribution of each affected EGF that is operating during a startup, shutdown, or emissions event as defined in §101.1 of this title (relating to Definitions) must be calculated from the NO<sub>x</sub> emission rate measured by the NO<sub>x</sub> monitor, if the monitor is operating properly. If the NO<sub>x</sub> monitor is not operating properly, the substitute data procedures identified in §117.1140 of this title must be used.

(k) Emission credits may be used in accordance with the requirements of §117.9800 of this title (relating to Use of Emission Credits for Compliance) to exceed the system cap.

**§117.1140. Demonstration of Compliance.**

(a) Nitrogen oxides (NO<sub>x</sub>) monitoring. The owner or operator of each unit subject to the emission specifications in §117.1105 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)), shall install, calibrate, maintain, and operate

a continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) to measure NO<sub>x</sub> on an individual basis.

(1) Each CEMS or PEMS is subject to the relative accuracy test audit relative accuracy requirements of 40 Code of Federal Regulations (CFR) Part 75, Appendix B, Figure 2, except the concentration options (parts per million by volume (ppmv) and pound per million British thermal units (lb/MMBtu)) do not apply. Each CEMS or PEMS 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.

(2) Each CEMS or PEMS is subject to the requirements of §117.8110 of this title (relating to Emission Monitoring System Requirements for Utility Electric Generation Sources).

(3) Each PEMS must predict NO<sub>x</sub> emissions in the units of the applicable emission limitations of this division and PEMS and fuel flow meters must be used to demonstrate continuous compliance with the emission specifications of this division.

(b) Acid rain peaking units. In lieu of the NO<sub>x</sub> monitoring requirements in subsection (a) of this section, the owner or operator of each peaking unit as defined in 40 CFR §72.2, may monitor operating parameters for each unit in accordance with 40 CFR Part 75, Appendix E, and calculate NO<sub>x</sub> emission rates based on those procedures.

(c) Totalizing fuel flow meters. The owner or operator of each unit subject to the emission specifications in §117.1105 of this title and each unit using the exemption in §117.1103(1) of this title (relating to Exemptions) 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.

(d) Run time meters. The owner or operator of a unit using the exemption of §117.1103(2) of this title shall record the operating time hours with an elapsed run time meter.

(e) Loss of exemption. The owner or operator of any unit claimed exempt from the emission specifications of this division using the exemptions in §117.1103(1) or (2) of this title, shall notify the executive director within seven days if the applicable limit is exceeded.

(1) If the limit is exceeded, the exemption from the emission specifications of this division is permanently withdrawn.

(2) Within 90 days after loss of the exemption, the owner or operator shall submit a compliance plan detailing a plan to meet the applicable compliance limit as soon as possible, but no later than 24 months after exceeding the limit. The plan must include a schedule of increments of progress for the installation of the required control equipment.

(3) The schedule is subject to the review and approval of the executive director.

(f) Data used for compliance. The methods required in this section must be used to demonstrate compliance with the emission specifications of §117.1105 of this title and the

system cap in §117.1120 of this title (relating to System Cap). For enforcement purposes, the executive director may also use other commission compliance methods to determine whether the unit is in compliance with applicable emission specifications.

(1) For units complying with the NO<sub>x</sub> emission specifications of §117.1105 of this title in pounds per million British thermal units (lb/MMBtu) on a rolling 30-day average basis, the rolling 30-day average is calculated for each day that fuel was combusted in the unit, and is the total NO<sub>x</sub> emissions (in pounds) from the unit for the preceding 30 days that fuel was combusted in the unit, divided by the total heat input (in MMBtu) for the unit during the same 30-day period.

(2) For any electric generating facility (EGF) complying with the system cap in §117.1120 of this title (relating to System Cap) in pounds per day on a rolling 30-day average basis, the rolling 30-day average is calculated for each day and is the average of the total pounds of NO<sub>x</sub> emissions per day from all EGFs included in the system cap for the preceding 30 days.

(g) Data Substitution. The missing data procedures specified in 40 CFR Part 75, Subpart D (Missing Data Substitution Procedures) must be used to provide substitute emissions compliance data during periods when the NO<sub>x</sub> monitor is off-line except as follows.

(1) A peaking unit, as defined in 40 CFR §72.2, subject to 40 CFR Part 75, Appendix E, may use the missing data procedures specified in 40 CFR Part 75, Appendix E, §2.5 (Missing Data Procedures).

(2) A PEMS for units not subject to the requirements of 40 CFR Part 75 may use calculations in accordance with §117.8110(b) of this title (relating to Emission Monitoring System Requirements for Utility Electric Generation Sources).

**§117.1145. Notification, Recordkeeping, and Reporting Requirements.**

(a) Notification. The owner or operator of an affected unit shall submit written notification to the appropriate regional office and any local air pollution control agency having jurisdiction of any continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) relative accuracy test audit (RATA) conducted under §117.1140 of this title (relating to Demonstration of Compliance) at least 15 days prior to such date.

(b) Reporting of test results. 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 the results of any CEMS or PEMS RATA conducted under §117.1140 of this title within 60 days after completion of such testing or evaluation.

(c) Startup and shutdown records. 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 by the executive director, United States Environmental Protection Agency, and any local air pollution control agency having jurisdiction upon request. These records must include, but are not limited to: type of fuel burned; quantity of each type fuel burned; gross and net energy production in megawatt-hours; and the date, time, and



duration of the event.

(d) Semiannual reports. The owner or operator of a unit required to install a CEMS or PEMS under §117.1140 of this title shall report in writing to the executive director on a semiannual basis any exceedance of the applicable emission limitations in this division and the monitoring system performance. All reports must be postmarked or received by the 30th day following the end of each calendar semiannual period (i.e., July 30 and January 30). Written reports must include the following information:

(1) the magnitude of excess emissions computed in accordance with 40 Code of Federal Regulations §60.13(h), any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the unit operating time during the reporting period;

(2) specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected unit, the nature and cause of any malfunction (if known) and the corrective action taken, or preventative measures adopted;

(3) the date and time identifying each period when the continuous monitoring system was inoperative, except for zero and span checks and the nature of the system repairs or adjustments;

(4) when no excess emissions have occurred or the continuous monitoring system has not been inoperative, repaired, or adjusted, such information must be stated in the report; and

(5) if the total duration of excess emissions for the reporting period is less than 1.0% of the total unit operating time for the reporting period and the CEMS or PEMS monitoring system downtime for the reporting period is less than 5.0% of the total unit operating time for the reporting period, only a summary report form (as outlined in the latest edition of the commission's Guidance for Preparation of Summary, Excess Emission, and Continuous Monitoring System Reports) must be submitted, unless otherwise requested by the executive director. If the total duration of excess emissions for the reporting period is greater than or equal to 1.0% of the total unit operating time for the reporting period or the CEMS or PEMS downtime for the reporting period is greater than or equal to 5.0% of the total unit operating time for the reporting period, a summary report and an excess emission report must both be submitted.

(e) Recordkeeping. The owner or operator of a unit subject to this division shall maintain records of the data specified in this subsection. Records must be kept for at least five years and must be made available upon request by authorized representatives of the executive director, United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction.

(1) The owner or operator of a unit complying with the NO<sub>x</sub> emission specifications in §117.1105(a)(1) – (4) of this title shall maintain daily records indicating the NO<sub>x</sub> emissions in pounds; the quantity and type of each fuel burned; the heat input in million British thermal units (MMBtu); and the rolling 30-day average NO<sub>x</sub> emission rate in pounds per MMBtu.

(2) The owner or operator of a unit complying with the NO<sub>x</sub> emission specification in §117.1105(a)(5) of this title shall maintain hourly records indicating the NO<sub>x</sub> emissions in lb; the quantity and type of each fuel burned; and the heat input in MMBtu.

(3) The owner or operator complying with the NO<sub>x</sub> emission system cap in §117.1120 of this title shall maintain daily records for each EGF in the cap indicating the NO<sub>x</sub> emissions in pounds; the quantity and type of each fuel burned; and the heat input in MMBtu. In addition, the owner or operator shall maintain daily records indicating the total NO<sub>x</sub> emissions in pounds from all EGFs under the system cap and the rolling 30-day average NO<sub>x</sub> emissions rate (in pounds per day) for all EGFs under the system cap.

(4) The owner or operator of a unit using the exemption in §117.1103(1) of this title (relating to Exemptions), shall maintain monthly records indicating the quantity and type of each fuel burned, the heat input in MMBtu; and the rolling 12-month average heat input in MMBtu.

(5) The owner or operator of a unit the exemption in §117.1103(2) of this title, shall maintain monthly records indicating the operating hours and the rolling 12-month average operating hours.

(6) The owner or operator shall maintain records of records of the results of testing, evaluations, calibrations, checks, adjustments, and maintenance of a CEMS or PEMS.

**§117.1152. Control Plan Procedures for Reasonably Available Control Technology (RACT).**

(a) The owner or operator of any unit subject to §117.1105 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) at a major source of nitrogen oxides (NO<sub>x</sub>) shall submit a control plan report to demonstrate compliance with the requirements of §117.1105 of this title. The report must include:

(1) the rule section used to demonstrate compliance, either §117.1105 of this title; §117.1120 of this title (relating to System Cap); or §117.9800 of this title (relating to Use of Emission Credits for Compliance);

(2) the specific rule citation for any unit with a claimed exemption from the emission specification of §117.1105 of this title;

(3) for each affected unit: the method of NO<sub>x</sub> control, the method of monitoring emissions, and the method of providing substitute emissions data when the NO<sub>x</sub> monitoring system is not providing valid data; and

(4) for sources complying with §117.1120 of this title, detailed calculation of the system cap that includes all data relied on for each electric generating facility included in the system cap equation in §117.1120(c) of this title.

(b) The report must be submitted to the Office of Compliance and Enforcement, the appropriate regional office, and the Office of Air by the applicable date specified for control plans in §117.9110 of this title (relating to Compliance Schedule for Bexar County Utility Electric Generation Sources).

(c) For any unit that becomes subject to §117.1105 of this title after the applicable date specified for submission of control plans in §117.9110 of this title, the control plan must be submitted to the Office of Compliance and Enforcement, the appropriate regional office, and the Office of Air no later than 60 days after becoming subject to §117.1105 of this title.

(d) If any of the information changes in a control plan report submitted in accordance with subsection (b) or (c) of this section, including functionally identical replacements, the control plan must be updated no later than 60 days after the change occurs. Written or electronic records of the updated control plan 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 United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction.

**SUBCHAPTER D: COMBUSTION CONTROL AT MINOR SOURCES IN OZONE**

**NONATTAINMENT AREAS**

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

**§§117.2010, 117.2035**

**Statutory Authority**

The amended rules are adopted under Texas Water Code (TWC), §5.102, concerning general powers; §5.103, concerning Rules; TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §7.002, concerning Enforcement Authority, which authorizes the commission to enforce the provisions of the Water Code and the Health and Safety Code within the commission's jurisdiction; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The amendments are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning the State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and

monitoring the emissions of air contaminants; and THSC, §382.021, concerning Sampling Methods and Procedures.

The adopted amendments implement TWC, §§5.102, 5.103 and 7.002; and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

**§117.2010. Emission Specifications.**

(a) For sources that are subject to Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program), the nitrogen oxides (NO<sub>x</sub>) emission rate values used to determine allocations for Chapter 101, Subchapter H, Division 3 of this title must be the lower of any applicable permit limit in a permit issued before January 2, 2001; any permit issued on or after January 2, 2001, that the owner or operator submitted an application determined to be administratively complete by the executive director before January 2, 2001; any limit in a permit by rule under which construction commenced by January 2, 2001; or the emission specifications in subsection (c) of this section. The averaging time must be as specified in Chapter 101, Subchapter H, Division 3 of this title.

(b) For sources that are not subject to Chapter 101, Subchapter H, Division 3 of this title, NO<sub>x</sub> emissions are limited to the lower of any applicable permit limit in a permit issued before January 2, 2001; any permit issued on or after January 2, 2001, that the owner or operator submitted an application determined to be administratively complete by the executive director before January 2, 2001; any limit in a permit by rule under which construction commenced by January 2, 2001; or the emission specifications in subsection (c) of this section. The averaging time must be as follows:

(1) if the unit is operated with a NO<sub>x</sub> continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) under §117.2035(c) of this title (relating to Monitoring and Testing Requirements), either as:

(A) a rolling 30-day average period, in the units of the applicable standard;

(B) a block one-hour average, in the units of the applicable standard; or

(C) a block one-hour average, in pounds per hour, for boilers and process heaters, calculated as the product of the boiler's or process heater's maximum rated capacity and its applicable limit in pounds per million British thermal units (lb/MMBtu); or

(2) if the unit is not operated with a NO<sub>x</sub> CEMS or PEMS under §117.2035(c) of this title, a block one-hour average, in the units of the applicable standard.

(c) The following NO<sub>x</sub> emission specifications must be used in conjunction with subsection (a) of this section to determine allocations for Chapter 101, Subchapter H, Division 3 of this title, or in conjunction with subsection (b) of this section to establish unit-by-unit emission specifications, as appropriate:

(1) from boilers and process heaters:



(A) gas-fired, 0.036 lb/MMBtu heat input (or alternatively, 30 parts per million by volume (ppmv) at 3.0% oxygen (O<sub>2</sub>), dry basis); and

(B) liquid-fired, 0.072 lb/MMBtu heat input (or alternatively, 60 ppmv at 3.0% O<sub>2</sub>, dry basis);

(2) from stationary, gas-fired, reciprocating internal combustion engines:

(A) fired on landfill gas, 0.60 gram per horsepower-hour (g/hp-hr); and

(B) all others, 0.50 g/hp-hr;

(3) from stationary, dual-fuel, reciprocating internal combustion engines, 5.83 g/hp-hr;

(4) from stationary, diesel, reciprocating internal combustion engines:

(A) placed into service before October 1, 2001, that have not been modified, reconstructed, or relocated on or after October 1, 2001, the lower of 11.0 g/hp-hr or the emission rate established by testing, monitoring, manufacturer's guarantee, or manufacturer's other data. For the purposes of this paragraph, the terms "modification" and "reconstruction" have the meanings defined in §116.10 of this title (relating to General Definitions) and 40 Code of Federal Regulations §60.15 (December 16, 1975), respectively, and the term "relocated" means to newly install at an account, as defined in §101.1 of this title (relating to Definitions), a used engine from anywhere outside that account; and

(B) for engines not subject to subparagraph (A) of this paragraph:

(i) with a horsepower (hp) rating of 50 hp or greater, but less than 100 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2003,  
6.9 g/hp-hr;

(II) on or after October 1, 2003, but before October 1,  
2007, 5.0 g/hp-hr; and

(III) on or after October 1, 2007, 3.3 g/hp-hr;

(ii) with a horsepower rating of 100 hp or greater, but less than 175 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2002,  
6.9 g/hp-hr;

(II) on or after October 1, 2002, but before October 1,  
2006, 4.5 g/hp-hr; and

(III) on or after October 1, 2006, 2.8 g/hp-hr;

(iii) with a horsepower rating of 175 hp or greater, but less than 300 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2002,  
6.9 g/hp-hr;

(II) on or after October 1, 2002, but before October 1,  
2005, 4.5 g/hp-hr; and

(III) on or after October 1, 2005, 2.8 g/hp-hr;

(iv) with a horsepower rating of 300 hp or greater, but less than 600 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2005,  
4.5 g/hp-hr; and

(II) on or after October 1, 2005, 2.8 g/hp-hr;

(v) with a horsepower rating of 600 hp or greater, but less than or equal to 750 hp, that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2005,  
4.5 g/hp-hr; and

(II) on or after October 1, 2005, 2.8 g/hp-hr; and

(vi) with a horsepower rating of 750 hp or greater that are installed, modified, reconstructed, or relocated:

(I) on or after October 1, 2001, but before October 1, 2005, 6.9 g/hp-hr; and

(II) on or after October 1, 2005, 4.5 g/hp-hr;

(5) from stationary gas turbines (including duct burners), 0.15 lb/MMBtu; and

(6) as an alternative to the emission specifications in paragraphs (1) - (5) of this subsection for units with an annual capacity factor of 0.0383 or less, 0.060 lb/MMBtu heat input. For units placed into service on or before January 1, 1997, the 1997 - 1999 average annual capacity factor must be used to determine whether the unit is eligible for the emission specification of this paragraph. For units placed into service after January 1, 1997, the annual capacity factor must be calculated from two consecutive years in the first five years of operation to determine whether the unit is eligible for the emission specification of this paragraph, using the same two consecutive years chosen for the activity level baseline. The five-year period begins at the end of the adjustment period as defined in §101.350 of this title (relating to Definitions).

(d) The maximum rated capacity used to determine the applicability of the emission specifications in subsection (c) of this section must be:

(1) the greater of the following:

(A) the maximum rated capacity as of December 31, 2000; or

(B) the maximum rated capacity after December 31, 2000; or

(2) alternatively, the maximum rated capacity authorized by a permit issued under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) on or after January 2, 2001, for which the owner or operator submitted an application determined to be administratively complete by the executive director before January 2, 2001, provided that the maximum rated capacity authorized by the permit issued on or after January 2, 2001, is no less than the maximum rated capacity represented in the permit application as of January 2, 2001.

(e) 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, is classified as a stationary gas-fired engine for the purposes of this chapter.

(f) Changes after December 31, 2000, to a unit subject to an emission specification in subsection (c) of this section (ESAD unit) that result in increased NO<sub>x</sub> emissions from a unit not subject to an emission specification in subsection (c) of this section (non-ESAD unit), such as redirecting one or more fuel or waste streams containing chemical-bound nitrogen to an incinerator or a flare, is only allowed if:

(1) the increase in NO<sub>x</sub> emissions at the non-ESAD unit is determined using a CEMS or PEMS that meets the requirements of §117.2035(c) of this title, or through stack testing that meets the requirements of §117.2035(e) of this title; and

(2) either of the following conditions is met:

(A) for sources that are subject to Chapter 101, Subchapter H, Division 3 of this title, a deduction in allowances equal to the increase in NO<sub>x</sub> emissions at the non-ESAD unit is made as specified in §101.354 of this title (relating to Allowance Deductions); or

(B) for sources that are not subject to Chapter 101, Subchapter H, Division 3 of this title, emission credits equal to the increase in NO<sub>x</sub> emissions at the non-ESAD unit are obtained and used in accordance with §117.9800 of this title (relating to Use of Emission Credits for Compliance).

(g) A source that met the definition of major source on December 31, 2000, is always classified as a major source for purposes of this chapter. A source that did not meet the definition of major source (i.e., was a minor source, or did not yet exist) on December 31, 2000, but at any time after December 31, 2000, becomes a major source, is from that time forward always classified as a major source for purposes of this chapter.

(h) The availability under subsection (c)(6) of this section of an 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 subsection (c)(6) of this section than would otherwise apply to the unit.

(i) No person shall allow the discharge into the atmosphere from any unit subject to NO<sub>x</sub> emission specifications in subsection (c) of this section, emissions in excess of the following, except as provided in §117.2025 of this title (relating to Alternative Case Specific Specifications):

(1) carbon monoxide (CO), 400 ppmv at 3.0% O<sub>2</sub>, dry basis (or alternatively, 3.0 g/hp-hr for stationary internal combustion engines):

(A) on a rolling 24-hour averaging period, for units equipped with CEMS or PEMS for CO; and

(B) on a one-hour average, for units not equipped with CEMS or PEMS for CO; and

(2) for units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control, ammonia emissions of 10 ppmv at 3.0% O<sub>2</sub>, dry, for boilers and process heaters; 15% O<sub>2</sub>, dry, for stationary gas turbines (including duct burners used in turbine exhaust ducts), gas-fired lean-burn engines, and diesel engines; and 3.0% O<sub>2</sub>, dry, for all other units, based on:

(A) a block one-hour averaging period for units not equipped with a CEMS or PEMS for ammonia; or

(B) a rolling 24-hour averaging period for units equipped with CEMS or PEMS for ammonia.

**§117.2035. Monitoring and Testing Requirements.**

(a) Totalizing fuel flow meters.

(1) The owner or operator of each unit subject to §117.2010 of this title (relating to Emission Specifications) and subject to Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program), or of each unit claimed exempt under §117.2003(b) of this title (relating to Exemptions) shall install, calibrate, maintain, and operate totalizing fuel flow meters with an accuracy of  $\pm 5\%$ , 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. The owner or operator of units with totalizing fuel flow meters installed prior to March 31, 2005, that do not meet the accuracy requirements of this subsection shall either recertify or replace existing meters to meet the  $\pm 5\%$  accuracy required as soon as practicable, but no later than March 31, 2007. For the purpose of compliance with this subsection for units having pilot fuel supplied by a separate fuel system or from an unmonitored portion of the same fuel system, the fuel flow to pilots may be calculated using the manufacturer's design flow rates rather than measured with a fuel flow meter. The calculated pilot fuel flow rate must be added to the monitored fuel flow when fuel flow is totaled.

(2) The following are alternatives to the fuel flow monitoring requirements of this subsection.



(A) Units operating with a nitrogen oxides (NO<sub>x</sub>) and diluent continuous emissions monitoring system (CEMS) under subsection (c) of this section may monitor stack exhaust flow using the flow monitoring specifications of 40 Code of Federal Regulations (CFR) Part 60, Appendix B, Performance Specification 6 or 40 CFR Part 75, Appendix A.

(B) Units that vent to a common stack with a NO<sub>x</sub> and diluent CEMS under subsection (c) of this section may use a single totalizing fuel flow meter.

(C) Diesel engines operating with run time meters may meet the fuel flow monitoring requirements of this subsection through monthly fuel use records.

(D) Units of the same category of equipment subject to Chapter 101, Subchapter H, Division 3 of this title may share a single totalizing fuel flow meter provided:

(i) the owner or operator performs a stack test in accordance with subsection (e) of this section for each unit sharing the totalizing fuel flow meter; and

(ii) the testing results from the unit with the highest emission rate (in pounds per million British thermal units or grams per horsepower-hour) are used for reporting purposes in §101.359 of this title (relating to Reporting) for all units sharing the totalizing fuel flow meter.

(E) The owner or operator of a unit or units claimed exempt under §117.2003(b) of this title, located at an independent school district may demonstrate compliance with the exemption by the following:

(i) in addition to the records required by §117.2045(a)(1) of this title (relating to Recordkeeping and Reporting Requirements), maintain the following monthly records in either electronic or written format. These 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 United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction;

(I) total fuel usage for the entire site;

(II) the estimated hours of operation for each unit;

(III) the estimated average operating rate (e.g., a percentage of maximum rated capacity) for each unit; and

(IV) the estimated fuel usage for each unit; and

(ii) within 60 days of written request by the executive director, submit for review and approval all methods, engineering calculations, and process information used to estimate the hours of operation, operating rates, and fuel usage for each unit.

(F) The owner or operator of units claimed exempt under §117.2003(b) of this title may share a single totalizing fuel flow meter to demonstrate compliance with the exemption, provided that:

(i) all affected units at the site qualify for the exemption under §117.2003(b) of this title; and

(ii) the total fuel usage for all units at the site is less than:

(I) the annual fuel usage limitation in §117.2003(b)(1) of this title; or

(II) the annual fuel usage limitation in §117.2003(b)(2) of this title when all affected units at the site are equal to or greater than 5.0 million British thermal units per hour.

(G) Stationary reciprocating internal combustion engines and stationary gas turbines equipped with a continuous monitoring system that continuously monitors horsepower and hours of operation are not required to install totalizing fuel flow meters. The continuous monitoring system must be installed, calibrated, maintained, and operated according to manufacturer's procedures.

(b) Oxygen (O<sub>2</sub>) monitors. If the owner or operator installs an O<sub>2</sub> monitor, the criteria in §117.8100(a) of this title (relating to Emission Monitoring System Requirements for Industrial,

Commercial, and Institutional Sources) should be considered the appropriate guidance for the location and calibration of the monitor.

(c) NO<sub>x</sub> monitors. If the owner or operator installs a CEMS or predictive emissions monitoring system (PEMS), it must meet the requirements of §117.8100(a) or (b) of this title. If a PEMS is used, the PEMS must predict the pollutant emissions in the units of the applicable emission specifications of this division (relating to Houston-Galveston-Brazoria Ozone Nonattainment Area Minor Sources).

(d) Monitor installation schedule. Installation of monitors must be performed in accordance with the schedule specified in §117.9200 of this title (relating to Compliance Schedule for Houston-Galveston-Brazoria Ozone Nonattainment Area Minor Sources).

(e) Testing requirements. The owner or operator of any unit subject to §117.2010 of this title shall comply with the following testing requirements.

(1) Each unit must be tested for NO<sub>x</sub>, carbon monoxide (CO), and O<sub>2</sub> emissions.

(2) One of the ammonia monitoring procedures specified in §117.8130 of this title (relating to Ammonia Monitoring) must be used to demonstrate compliance with the ammonia emission specification of §117.2010(i)(2) of this title for units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control. This paragraph does not apply to stationary diesel engines equipped with selective catalytic reduction (SCR) systems that meet the following criteria.

(A) The SCR system must use a reductant other than the engine's fuel.

(B) The SCR system must operate with a diagnostic system that monitors reductant quality and tank levels.

(C) The diagnostic system must alert owners or operators to the need to refill the reductant tank before it is empty or to replace the reductant if the reductant does not meet applicable concentration specifications.

(D) If the SCR system uses input from an exhaust NO<sub>x</sub> sensor (or other sensor) to alert owners or operators when the reductant quality is inadequate, the reductant quality does not need to be monitored separately by the diagnostic system.

(E) The reductant tank level must be monitored in accordance with the manufacturer's design to demonstrate compliance with this paragraph.

(F) The method of alerting an owner or operator must be a visual or audible alarm.

(3) For units not equipped with CEMS or PEMS, all testing must be conducted according to §117.8000 of this title (relating to Stack Testing Requirements). In lieu of the test methods specified in §117.8000 of this title, the owner or operator may use American Society for Testing and Materials (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, combustion turbines, boilers, and process heaters. 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 of this title (relating to Compliance Stack Test Reports).

(4) 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 §117.8010 of this title.

(5) 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.

(6) Initial compliance with §117.2010 of this title for units operating with CEMS or PEMS must be demonstrated after monitor certification testing using the NO<sub>x</sub> CEMS or PEMS.

(7) For units not operating with CEMS or PEMS, the following apply.

(A) Retesting as specified in paragraphs (1) - (4) of this subsection is required within 60 days after any modification that could reasonably be expected to increase the NO<sub>x</sub> emission rate.

(B) Retesting as specified in paragraphs (1) - (4) of this subsection may be conducted 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), flue gas recirculation, and fuel-lean and conventional (fuel-rich) reburn.

(C) The NO<sub>x</sub> emission rate determined by the retesting must establish a new emission factor to be used to calculate actual emissions from the date of the retesting forward. Until the date of the retesting, the previously determined emission factor must be used to calculate actual emissions for compliance with Chapter 101, Subchapter H, Division 3 of this title.

(8) Testing must be performed in accordance with the schedule specified in §117.9200 of this title.

(9) All test reports must be submitted to the executive director for review and approval within 60 days after completion of the testing.

(f) Emission allowances.

(1) For sources that are subject to Chapter 101, Subchapter H, Division 3 of this title, the NO<sub>x</sub> testing and monitoring data of subsections (a) - (e) of this section, together with the level of activity, as defined in §101.350 of this title (relating to Definitions), must be used to establish the emission factor calculating actual emissions for compliance with Chapter 101, Subchapter H, Division 3 of this title.

(2) The emission factor in subsection (e)(7) of this section or paragraph (1) of this subsection is multiplied by the unit's level of activity to determine the unit's actual emissions for compliance with Chapter 101, Subchapter H, Division 3 of this title.

(g) Run time meters. The owner or operator of any stationary diesel engine claimed exempt using the exemption of §117.2003(a)(2)(E), (H), or (I) of this title shall record the operating time with an elapsed run time meter. Any run time meter installed on or after October 1, 2001, must be non-resettable.



**SUBCHAPTER D: COMBUSTION CONTROL AT MINOR SOURCES IN OZONE**

**NONATTAINMENT AREAS**

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

**§§117.2110, 117.2135**

**Statutory Authority**

The amended rules are adopted under Texas Water Code (TWC), §5.102, concerning general powers; §5.103, concerning Rules; TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §7.002, concerning Enforcement Authority, which authorizes the commission to enforce the provisions of the Water Code and the Health and Safety Code within the commission's jurisdiction; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The amendments are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning the State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants; and THSC, §382.021, concerning Sampling

Methods and Procedures.

The adopted amendments implement TWC, §§5.102, 5.103 and 7.002; and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

**§117.2110. Emission Specifications for Eight-Hour Attainment Demonstration.**

(a) The owner or operator of any source subject to this division (relating to Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Minor Sources) shall not allow the discharge into the atmosphere emissions of nitrogen oxides (NO<sub>x</sub>) in excess of the following emission specifications.

(1) Emission specifications for stationary, gas-fired, reciprocating internal combustion engines are as follows:

(A) rich-burn engines:

(i) fired on landfill gas, 0.60 grams per horsepower-hour (g/hp-hr);

and

(ii) all other rich-burn engines, 0.50 g/hp-hr; and

(B) lean-burn engines:

(i) placed into service before June 1, 2007, that have not been modified, reconstructed, or relocated on or after June 1, 2007, 0.70 g/hp-hr; and

(ii) placed into service, modified, reconstructed, or relocated on or after June 1, 2007:

(I) fired on landfill gas or other biogas, 0.60 g/hp-hr; and

(II) all other lean-burn engines, 0.50 g/hp-hr.

(2) The emission specification for stationary, dual-fuel, reciprocating internal combustion engines is 5.83 g/hp-hr.

(3) Emission specifications for stationary, diesel, reciprocating internal combustion engines are as follows:

(A) placed into service before March 1, 2009, that have not been modified, reconstructed, or relocated on or after March 1, 2009, the lower of 11.0 g/hp-hr or the emission rate established by testing, monitoring, manufacturer's guarantee, or manufacturer's other data; and

(B) for engines not subject to subparagraph (A) of this paragraph:

(i) with a horsepower (hp) rating of 50 hp or greater, but less than 100 hp, that are installed, modified, reconstructed, or relocated on or after March 1, 2009, 3.3 g/hp-hr;

(ii) with a horsepower rating of 100 hp or greater, but less than or equal to 750 hp, that are installed, modified, reconstructed, or relocated on or after March 1, 2009, 2.8 g/hp-hr; and

(iii) with a horsepower rating of 750 hp or greater that are installed, modified, reconstructed, or relocated on or after March 1, 2009, 4.5 g/hp-hr.

(4) As an alternative to the emission specifications in paragraphs (1) - (3) of this subsection for units with an annual capacity factor of 0.0383 or less, 0.060 pound per million British thermal units (lb/MMBtu) heat input. For units placed into service on or before December 31, 2000, the annual capacity factor as of December 31, 2000, must be used to determine eligibility for the alternative emission specification of this paragraph. For units placed into service after December 31, 2000, a 12-month rolling average must be used to determine the annual capacity factor.

(5) For the purposes of this subsection, the terms "modification" and "reconstruction" have the meanings defined in §116.10 of this title (relating to General Definitions) and 40 Code of Federal Regulations §60.15 (December 16, 1975), respectively, and the term "relocated" means to newly install at an account, as defined in §101.1 of this title (relating to Definitions), a used engine from anywhere outside that account.

(b) The averaging time for the NO<sub>x</sub> emission specifications of subsection (a) of this section is as follows:

(1) if the unit is operated with a NO<sub>x</sub> continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) under §117.2135(c) of this title (relating to Monitoring, Notification, and Testing Requirements), either as:

(A) a rolling 30-day average period, in the units of the applicable standard;

(B) a block one-hour average, in the units of the applicable standard, or alternatively;

(C) a block one-hour average, in pounds per hour, for boilers, calculated as the product of the boiler's maximum rated capacity and its applicable limit in lb/MMBtu; or

(2) if the unit is not operated with a NO<sub>x</sub> CEMS or PEMS under §117.2135(c) of this title, a block one-hour average, in the units of the applicable standard.

(c) The maximum rated capacity used to determine the applicability of the emission specifications in subsection (a) of this section must be the greater of the following:

(1) the maximum rated capacity as of December 31, 2000; or

(2) the maximum rated capacity after December 31, 2000.

(d) 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 chapter.

(e) Changes after December 31, 2000, to a unit subject to an emission specification in subsection (a) of this section (ESAD unit) that result in increased NO<sub>x</sub> emissions from a unit not subject to an emission specification in subsection (a) of this section (non-ESAD unit), such as redirecting one or more fuel or waste streams containing chemical-bound nitrogen to an incinerator or a flare, is only allowed if:

(1) the increase in NO<sub>x</sub> emissions at the non-ESAD unit is determined using a CEMS or PEMS that meets the requirements of §117.2135(c) of this title, or through stack testing that meets the requirements of §117.2135(f) of this title; and

(2) emission credits equal to the increase in NO<sub>x</sub> emissions at the non-ESAD unit are obtained and used in accordance with §117.9800 of this title (relating to Use of Emission Credits for Compliance).

(f) A source that met the definition of major source on December 31, 2000, is always classified as a major source for purposes of this chapter. A source that did not meet the definition of major source (i.e., was a minor source, or did not yet exist) on December 31, 2000, but becomes a major source at any time after December 31, 2000, is from that time forward always classified as a major source for purposes of this chapter.

(g) The availability under subsection (a)(4) of this section of an 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 subsection (a)(4) of this section than would otherwise apply to the unit.

(h) No person shall allow the discharge into the atmosphere from any unit subject to NO<sub>x</sub> emission specifications in subsection (a) of this section, emissions in excess of the following, except as provided in §117.2125 of this title (relating to Alternative Case Specific Specifications):

(1) carbon monoxide (CO), 400 ppmv at 3.0% oxygen (O<sub>2</sub>), dry basis (or alternatively, 3.0 g/hp-hr for stationary internal combustion engines):

(A) on a rolling 24-hour averaging period, for units equipped with CEMS or PEMS for CO; and

(B) on a one-hour average, for units not equipped with CEMS or PEMS for CO; and

(2) for units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control, ammonia emissions of 10 ppmv at 15% O<sub>2</sub>, dry, for gas-fired lean-burn engines and diesel engines; and 3.0% O<sub>2</sub>, dry, for all other units, based on:

(A) a block one-hour averaging period for units not equipped with a CEMS or PEMS for ammonia; or

(B) a rolling 24-hour averaging period for units equipped with CEMS or PEMS for ammonia.

(i) An owner or operator may use emission reduction credits as specified in §117.9800 of this title to comply with the NO<sub>x</sub> emission specifications of this section.

**§117.2135. Monitoring, Notification, and Testing Requirements.**

(a) Oxygen (O<sub>2</sub>) monitors. If the owner or operator installs an O<sub>2</sub> monitor, the criteria in §117.8100(a) of this title (relating to Emission Monitoring System Requirements for Industrial, Commercial, and Institutional Sources) should be considered the appropriate guidance for the location and calibration of the monitor.

(b) Nitrogen oxides (NO<sub>x</sub>) monitors. If the owner or operator installs a continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS), the CEMS or PEMS must meet the requirements of §117.8100(a) or (b) of this title. If a PEMS is used, the PEMS must predict the pollution emissions in the units of the applicable emission limitations of this division.



(c) Monitor installation schedule. Installation of monitors must be performed in accordance with the schedule specified in §117.9210 of this title (relating to Compliance Schedule for Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Minor Sources).

(d) Testing requirements. The owner or operator of any unit subject to §117.2110 of this title (relating to Emission Specifications for Eight-Hour Attainment Demonstration) shall comply with the following testing requirements.

(1) Each unit must be tested for NO<sub>x</sub>, carbon monoxide (CO), and O<sub>2</sub> emissions.

(2) One of the ammonia monitoring procedures specified in §117.8130 of this title (relating to Ammonia Monitoring) must be used to demonstrate compliance with the ammonia emission specification of §117.2110(h)(2) of this title for units that inject urea or ammonia into the exhaust stream for NO<sub>x</sub> control. This paragraph does not apply to stationary diesel engines equipped with selective catalytic reduction (SCR) systems that meet all of the following criteria.

(A) The SCR system must use a reductant other than the engine's fuel.

(B) The SCR system must operate with a diagnostic system that monitors reductant quality and tank levels.

(C) The diagnostic system must alert owners or operators to the need to refill the reductant tank before it is empty or to replace the reductant if the reductant does not meet applicable concentration specifications.

(D) If the SCR system uses input from an exhaust NO<sub>x</sub> sensor (or other sensor) to alert owners or operators when the reductant quality is inadequate, the reductant quality does not need to be monitored separately by the diagnostic system.

(E) The reductant tank level must be monitored in accordance with the manufacturer's design to demonstrate compliance with this paragraph.

(F) The method of alerting an owner or operator must be a visual or audible alarm.

(3) For units not equipped with CEMS or PEMS, all testing must be conducted according to §117.8000 of this title (relating to Stack Testing Requirements). In lieu of the test methods specified in §117.8000 of this title, the owner or operator may use American Society for Testing and Materials (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. 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 of this title (relating to Compliance Stack Test Reports).

(4) Test results must be reported in the units of the applicable emission specifications and averaging periods. If compliance testing is based on 40 Code of Federal Regulations Part 60, Appendix A reference methods, the report must contain the information specified in §117.8010 of this title.

(5) 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.

(6) Initial compliance with the emission specifications of §117.2110 of this title for units operating with CEMS or PEMS must be demonstrated after monitor certification testing using the NO<sub>x</sub> CEMS or PEMS.

(7) For units not operating with CEMS or PEMS, the following apply.

(A) Retesting as specified in paragraphs (1) - (4) of this subsection is required within 60 days after any modification that could reasonably be expected to increase the NO<sub>x</sub> emission rate.

(B) Retesting as specified in paragraphs (1) - (4) of this subsection may be conducted 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), flue gas recirculation, and fuel-lean and conventional (fuel-rich) reburn.

(C) Stationary, reciprocating internal combustion engines not equipped with CEMS or PEMS must be periodically tested for NO<sub>x</sub> and CO emissions as specified in §117.8140(a) of this title (relating to Emission Monitoring for Engines).

(8) Testing must be performed in accordance with the schedule specified in §117.9210 of this title.

(9) All test reports must be submitted to the executive director for review and approval within 60 days after completion of the testing.

(10) The owner or operator of an affected unit in the Dallas-Fort Worth eight-hour ozone nonattainment area must submit written notification of any CEMS or PEMS relative accuracy test audit (RATA) or testing required under this section 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.

(e) Run time meters. The owner or operator of any stationary diesel engine claimed exempt using the exemption of §117.2103(5), (8), (9), or (10) of this title (relating to Exemptions) shall record the operating time with a non-resettable elapsed run time meter.

**SUCHAPTER E: MULTI-REGION COMBUSTION CONTROL**

**DIVISION 1: UTILITY ELECTRIC GENERATION IN EAST AND CENTRAL TEXAS**

**§117.3000**

**Statutory Authority**

The amended rules are adopted under Texas Water Code (TWC), §5.102, concerning general powers; §5.103, concerning Rules; TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §7.002, concerning Enforcement Authority, which authorizes the commission to enforce the provisions of the Water Code and the Health and Safety Code within the commission's jurisdiction; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The amendments are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning the State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants; and THSC, §382.021, concerning Sampling Methods and Procedures.

The adopted amendments implement TWC, §§5.102, 5.103 and 7.002; and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

**§117.3000. Applicability.**

(a) The provisions of this division (relating to Utility Electric Generation in East and Central Texas) apply to each utility electric power boiler and stationary gas turbine (including duct burners used in turbine exhaust ducts) that:

(1) generates electric energy for compensation;

(2) is owned or operated by an electric cooperative, independent power producer, municipality, river authority, or public utility, or any of its successors;

(3) was placed into service before December 31, 1995; and

(4) is located in Atascosa, Bastrop, Bexar, Brazos, Calhoun, Cherokee, Fannin, Fayette, Freestone, Goliad, Gregg, Grimes, Harrison, Henderson, Hood, Hunt, Lamar, Limestone, Marion, McLennan, Milam, Morris, Nueces, Parker, Red River, Robertson, Rusk, Titus, Travis, Victoria, or Wharton County.

(b) The provisions of §117.3005 of this title (relating to Gas-Fired Steam Generation) also apply in Palo Pinto County.

(c) This division no longer applies in Bexar County after December 31, 2024.

**SUCHAPTER E: MULTI-REGION COMBUSTION CONTROL**

**DIVISION 2: CEMENT KILNS**

**§§117.3103, 117.3110, 117.3120, 117.3124, 117.3145**

**Statutory Authority**

The new and amended rules are adopted under Texas Water Code (TWC), §5.102, concerning general powers; §5.103, concerning Rules; TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §7.002, concerning Enforcement Authority, which authorizes the commission to enforce the provisions of the Water Code and the Health and Safety Code within the commission's jurisdiction; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new and amended rules are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning the State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants; and THSC, §382.021, concerning Sampling Methods and Procedures.



The adopted new and amended rules implement TWC, §§5.102, 5.103 and 7.002; and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

**§117.3103. Exemptions.**

(a) Portland cement kilns exempted from the provisions of this division (relating to Cement Kilns), include any portland cement kiln placed into service on or after December 31, 1999, except as specified in §§117.3110, 117.3120, 117.3123, and 117.3124 of this title (relating to Emission Specifications; Source Cap; Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration Control Requirements; and Bexar County Control Requirements for Reasonably Available Control Technology (RACT)).

(b) Any account in Ellis County with no portland cement kilns in operation prior to January 1, 2001, is exempt from §117.3123 of this title.

(c) After the compliance date specified in §117.9320(c) of this title (relating to Compliance Schedule for Cement Kilns), portland cement kilns that are subject to §117.3123 of this title are exempt from §117.3110 and §117.3120 of this title between March 1 and October 31 of each calendar year.

(d) After the compliance date specified in §117.9320(c) of this title, portland cement kilns that are subject to §117.3124 of this title are exempt from §117.3110 and §117.3120 of this title.

**§117.3110. Emission Specifications.**

(a) In accordance with the compliance schedule in §117.9320 of this title (relating to Compliance Schedule for Cement Kilns), the owner or operator of each portland cement kiln shall ensure that nitrogen oxides (NO<sub>x</sub>) emissions do not exceed the following rates on a 30-day rolling average. For the purposes of this section, the 30-day rolling average is calculated as the total of all the hourly emissions data (in pounds) that fuel was combusted in a cement kiln in the preceding 30 consecutive days, divided by the total number of tons of clinker produced in that kiln during the same 30-day period:

(1) for each long wet kiln:

(A) in Bexar, Comal, Hays, and McLennan Counties, 6.0 pounds per ton (lb/ton) of clinker produced; and

(B) in Ellis County, 4.0 lb/ton of clinker produced;

(2) for each long dry kiln, 5.1 lb/ton of clinker produced;

(3) for each preheater kiln, 3.8 lb/ton of clinker produced; and

(4) for each preheater-precalciner or precalciner kiln, 2.8 lb/ton of clinker produced.

(b) If there are multiple cement kilns at the same account, the owner or operator may choose to comply with the emission specifications of subsection (a) of this section on the basis of a weighted average for the cement kilns at the account that are subject to the same specification. Each owner or operator choosing this option shall submit written notification of this choice to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction before the appropriate compliance date in §117.9320 of this title.

(c) Each long wet or long dry kiln for which the following controls are installed and operated during kiln operation is not required to meet the NO<sub>x</sub> emission specifications of subsection (a) of this section, provided that each owner or operator choosing this option submits written notification of this choice to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction before the appropriate compliance date in §117.9320 of this title:

(1) a low-NO<sub>x</sub> burner and either:

(A) mid-kiln firing; or

(B) some other form of secondary combustion achieving equivalent levels of NO<sub>x</sub> reductions; or alternatively;

(2) other additions or changes to the kiln system achieving at least a 30% reduction in NO<sub>x</sub> emissions, provided the additions or changes are approved by the executive director with concurrence from the United States Environmental Protection Agency.

(d) Each preheater or precalciner kiln for which either a low-NO<sub>x</sub> burner or a low-NO<sub>x</sub> precalciner is installed and operated during kiln operation is not required to meet the NO<sub>x</sub> emission specifications of subsection (a) of this section. Each owner or operator choosing this option shall submit written notification of this choice to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction before the appropriate compliance date in §117.9320 of this title.

(e) An owner or operator may use §117.9800 of this title (relating to Use of Emission Credits for Compliance) to meet the NO<sub>x</sub> emission control requirements of this section, in whole or in part.

(f) This section no longer applies in Bexar County after December 31, 2024.

**§117.3120. Source Cap.**

(a) As an alternative to complying with the requirements of §117.3110 of this title (relating to Emission Specifications) in Bexar, Comal, Ellis, Hays, and McLennan Counties, an owner or operator may reduce total nitrogen oxides (NO<sub>x</sub>) emissions (in pounds per day (ppd)) from all cement kilns at the account (including any cement kilns placed into service on or after December 31, 1999) to at least 30% less than the total NO<sub>x</sub> emissions (in ppd) from all cement kilns in the account's 1996 emissions inventory (EI), on a 90-day rolling average basis. For the purposes of this section, the 90-day rolling average is calculated as the total of all the hourly emissions data for the preceding 90 days. For the calendar year that includes the appropriate

compliance date in §117.9320 of this title (relating to Compliance Schedule for Cement Kilns), only hourly emissions data on or after that compliance date is included, such that the first 90-day period ends 90 days after the appropriate compliance date in §117.9320 of this title. A 90-day rolling average emission cap must be calculated using the following equation.

**Figure: 30 TAC §117.3120(a) (no change)**

(b) To qualify for the source cap option available under this section, the owner or operator shall submit an initial control plan to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction that demonstrates that the overall reduction of NO<sub>x</sub> emissions from all cement kilns at the account will be at least 30% from the 1996 baseline EI on a 90-day rolling average basis. The plan must be submitted no later than December 31 of the year preceding the appropriate compliance date in §117.9320 of this title. Each control plan must be approved by the executive director before the owner or operator may use the source cap available under this section for compliance. At a minimum, the control plan must include the emission point number (EPN), facility identification number (FIN), and 1996 baseline EI NO<sub>x</sub> emissions (in ppd) from each cement kiln at the account; a description of the control measures that have been or will be implemented at each cement kiln; and an explanation of the recordkeeping procedure and calculations that will be used to demonstrate compliance.

(c) Beginning on March 31 of the year following the appropriate compliance date in §117.9320 of this title, the owner or operator shall submit an annual report no later than March 31 of each year to the executive director, the appropriate regional office, and any local air

pollution control program with jurisdiction that demonstrates that the overall reduction of NO<sub>x</sub> emissions from all cement kilns at the account is at least 30% from the 1996 baseline EI on a 90-day rolling average basis. At a minimum, the report must include the EPN, FIN, and each 90-day rolling average NO<sub>x</sub> emissions (in ppd) during the preceding calendar year for the cement kilns at the account.

(d) All representations in control plans and annual reports become enforceable conditions. The owner or operator shall not vary from such representations if the variation will cause a change in the identity of the specific cement kilns subject to this section or the method of control of emissions unless the owner or operator submits a revised control plan to the executive director, the appropriate regional office, and any local air pollution control program with jurisdiction no later than 30 days after the change. All control plans and reports must demonstrate that the total NO<sub>x</sub> emissions (in ppd) from all cement kilns at the account (including any cement kilns placed into service on or after December 31, 1999) are being reduced to at least 30% less than the total NO<sub>x</sub> emissions (in ppd) from all cement kilns in the account's 1996 EI on a 90-day rolling average basis.

(e) The NO<sub>x</sub> emissions monitoring required by §117.3140 of this title (relating to Continuous Demonstration of Compliance) for each cement kiln in the source cap must be used to demonstrate continuous compliance with the source cap.

(f) An owner or operator may use §117.9800 of this title (relating to Use of Emission Credits for Compliance) to meet the NO<sub>x</sub> emission control requirements of this section, in whole or in part.

(g) This section no longer applies in Bexar County after December 31, 2024.

**§117.3124. Bexar County Control Requirements for Reasonably Available Control Technology (RACT).**

(a) In accordance with the applicable schedule in §117.9320 of this title (relating to Compliance Schedule for Cement Kilns), the owner or operator of each portland cement kiln located in Bexar County shall ensure that nitrogen oxides (NO<sub>x</sub>) emissions from each preheater-precalciner or precalciner kiln do not exceed 2.8 pounds per ton (lb/ton) of clinker produced on a rolling 30-day average basis.

(b) For the purposes of this section, the rolling 30-day average is an average, calculated for each day that fuel was combusted in the cement kiln, as the total of all the hourly emissions data (in pounds) for the preceding 30 days that fuel was combusted in the cement kiln, divided by the total number of tons of clinker produced in that kiln during the same 30-day period.

(c) An owner or operator may use §117.9800 of this title (relating to Use of Emission Credits for Compliance) to meet the NO<sub>x</sub> emission control requirements of this section, in whole or in part.

**§117.3145. Notification, Recordkeeping, and Reporting Requirements.**

(a) Notification. The owner or operator of each portland cement kiln shall submit verbal notification to the executive director of the date of any continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) performance evaluation

conducted under §117.3140 or §117.3142 of this title (relating to Continuous Demonstration of Compliance; and Emission Testing and Monitoring for Eight-Hour Attainment Demonstration) at least 15 days before such date followed by written notification within 15 days after testing is completed.

(b) Reporting of test results. The owner or operator of each portland cement kiln shall furnish the executive director and any local air pollution control agency having jurisdiction a copy of any CEMS or PEMS relative accuracy test audit conducted under §117.3140 or §117.3142 of this title:

(1) within 60 days after completion of such testing or evaluation; and

(2) not later than the appropriate compliance date in §117.9320 of this title (relating to Compliance Schedule for Cement Kilns).

(c) Recordkeeping. The owner or operator of a portland cement kiln subject to the requirements of this division (relating to Cement Kilns) shall 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, United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction. The records must include:

(1) for each kiln subject to §117.3110 or 117.3120 of this title (relating to Emission Specifications; and Source Cap), monitoring records of:



(A) daily and rolling 30-day average (and, for each kiln subject to the source cap in §117.3120 of this title, rolling 90-day average) nitrogen oxides (NO<sub>x</sub>) emissions (in pounds);

(B) daily and rolling 30-day average (and, for each kiln subject to the source cap in §117.3120 of this title, rolling 90-day average) production of clinker (in United States short tons); and

(C) average NO<sub>x</sub> emission rate (in pounds per ton (lb/ton) of clinker produced) on the basis of a rolling 30-day average (and, for each kiln subject to the source cap in §117.3120 of this title, a rolling 90-day average);

(2) records of the results of initial certification testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS and PEMS;

(3) records of the results of any stack testing conducted;

(4) for each kiln subject to the source cap in §117.3123 of this title (relating to Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration Control Requirements) and emission testing and monitoring requirements in §117.3142 of this title:

(A) records of the control plan required under §117.3123 of this title;

(B) hourly records of the average NO<sub>x</sub> concentration in parts per million by volume;

(C) hourly records of the NO<sub>x</sub> emissions in pounds per hour;

(D) daily records of the NO<sub>x</sub> emissions in tons per day;

(E) daily records of the NO<sub>x</sub> emissions in tons per day expressed as a 30-day rolling average;

(F) hourly records of the average exhaust gas flow rate in dry standard cubic feet per minute; and

(G) records of ammonia monitoring required under §117.3142(a)(3) of this title; and

(5) for each kiln subject to §117.3124 of this title (relating to Bexar County Control Requirements for Reasonably Available Control Technology (RACT)), monitoring records of:

(A) hourly, daily, and rolling 30-day average NO<sub>x</sub> emissions (in pounds);

(B) hourly, daily, and rolling 30-day average production of clinker (in United States short tons); and

(C) rolling 30-day average NO<sub>x</sub> emission rate (in pounds per ton of clinker produced).

**SUBCHAPTER H: ADMINISTRATIVE PROVISIONS**

**DIVISION 1: COMPLIANCE SCHEDULES**

**§§117.9010, 117.9030, 117.9110, 117.9300, 117.9320**

**Statutory Authority**

The new and amended rules are adopted under Texas Water Code (TWC), §5.102, concerning general powers; §5.103, concerning Rules; TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §7.002, concerning Enforcement Authority, which authorizes the commission to enforce the provisions of the Water Code and the Health and Safety Code within the commission's jurisdiction; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The new and amended rules are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning the State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants; and THSC, §382.021, concerning Sampling Methods and Procedures.

The adopted new and amended rules implement TWC, §§5.102, 5.103 and 7.002; and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

**§117.9010. Compliance Schedule for Bexar County Ozone Nonattainment Area Major Sources.**

(a) The owner or operator of any stationary source of nitrogen oxides (NO<sub>x</sub>) in the Bexar County ozone nonattainment area that is a major source of NO<sub>x</sub> and is subject to the requirements of Subchapter B, Division 2 of this chapter (relating to Bexar County Ozone Nonattainment Area Major Sources) shall comply with the requirements of Subchapter B, Division 2 of this chapter as soon as practicable, but no later than January 1, 2025.

(b) The owner or operator of any stationary source of NO<sub>x</sub> that becomes subject to the requirements of Subchapter B, Division 2 of this chapter on or after the applicable compliance date specified in subsection (a) of this section, shall comply with the requirements of Subchapter B, Division 2 of this chapter as soon as practicable, but no later than 60 days after becoming subject.

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

(a) Reasonably available control technology emission specifications.

(1) The owner or operator of any stationary source of nitrogen oxides (NO<sub>x</sub>) in the Dallas-Fort Worth eight-hour ozone nonattainment area that is a major source of NO<sub>x</sub> and is

subject to §117.405(a) or (b) of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)) shall comply with the requirements of Subchapter B, Division 4 of this chapter (relating to Dallas-Fort Worth Eight-Hour Ozone Nonattainment Area Major Sources) as follows:

(A) for units subject to the emission specification of §117.405(a) of this title located in Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, or Tarrant Counties, or located at a source in Wise County that emits or has the potential to emit equal to or greater than 100 tons per year (tpy) of NO<sub>x</sub>:

(i) submission of the initial control plan required by §117.450 of this title (relating to Initial Control Plan Procedures) was required by June 1, 2016;

(ii) for units subject to the emission specification of §117.405(a) of this title as of January 1, 2017, compliance with all other requirements of Subchapter B, Division 4 of this chapter was required by January 1, 2017, and these units shall continue to comply with the requirements of Subchapter B, Division 4 of this chapter; and

(iii) for units that became subject to the emission specification of §117.405(a) of this title after January 1, 2017, compliance is required as specified in paragraph (2) of this subsection;

(B) for units subject to the emission specifications of §117.405(b) of this title located at sources in Wise County that emit or have the potential to emit equal to or greater than 100 tpy of NO<sub>x</sub>:

(i) submission of the initial control plan required by §117.450 of this title was required by June 1, 2016;

(ii) for units subject to the emission specifications of §117.405(b) of this title as of January 1, 2017, compliance with all other requirements of Subchapter B, Division 4 of this chapter was required by January 1, 2017, and these units shall continue to comply with the requirements of Subchapter B, Division 4 of this chapter; and

(iii) for units that became subject to the emission specifications of §117.405(b) of this title after January 1, 2017, compliance is required as specified in paragraph (2) of this subsection;

(C) for units subject to the emission specifications of §117.405 of this title located at sources in Wise County that emit or have the potential to emit equal to or greater than 50 tpy but less than 100 tpy of NO<sub>x</sub>:

(i) submission of the initial control plan required by §117.450 of this title is required no later than January 15, 2021; and

(ii) for units subject to the emission specifications of §117.405 of this title, compliance with all other requirements of Subchapter B, Division 4 of this chapter is required as soon as practicable, but no later than July 20, 2021; and

(D) for units subject to the emission specifications of §117.405 of this title located at sources in Wise County that emit or have the potential to emit equal to or greater than 25 tpy but less than 50 tpy of NO<sub>x</sub>:

(i) submission of the initial control plan required by §117.450(b) of this title is required no later than May 7, 2025; and

(ii) compliance with all other requirements of Subchapter B, Division 4 of this chapter is required as soon as practicable, but no later than November 7, 2025.

(2) The owner or operator of any stationary source of NO<sub>x</sub> that becomes subject to the requirements of §117.405 of this title on or after the applicable compliance date specified in paragraph (1) of this subsection, shall comply with the requirements of Subchapter B, Division 4 of this chapter as soon as practicable, but no later than 60 days after becoming subject.

(b) Eight-hour ozone attainment demonstration emission specifications.

(1) The owner or operator of any stationary source of NO<sub>x</sub> in the Dallas-Fort Worth eight-hour ozone nonattainment area that is a major source of NO<sub>x</sub> and is subject to §117.410(a) of this title (relating to Emission Specifications for Eight-Hour Attainment Demonstration) shall comply with the requirements of Subchapter B, Division 4 of this chapter as follows:

(A) submit the initial control plan required by §117.450 of this title no later than June 1, 2008; and

(B) for units subject to the emission specifications of §117.410(a) of this title, comply with all other requirements of Subchapter B, Division 4 of this chapter as soon as practicable, but no later than:

(i) March 1, 2009, for units subject to §117.410(a)(1), (2), (4), (5), (6), (7)(A), (8), (10), and (14) of this title;

(ii) March 1, 2010, for units subject to §117.410(a)(3), (7)(B), (9), (11), (12), and (13) of this title;

(C) for diesel and dual-fuel engines, comply with the restriction on hours of operation for maintenance or testing in §117.410(f) of this title, and associated recordkeeping in §117.445(f)(9) of this title (relating to Notification, Recordkeeping, and Reporting Requirements), as soon as practicable, but no later than March 1, 2009; and

(D) for any stationary gas turbine or stationary internal combustion engine claimed exempt using the exemption of §117.403(a)(7)(D), (8), or (9) of this title (relating to Exemptions), comply with the run time meter requirements of §117.440(i) of this title (relating to Continuous Demonstration of Compliance), and recordkeeping requirements of §117.445(f)(4) of this title, as soon as practicable, but no later than March 1, 2009.



(2) The owner or operator of any stationary source of NO<sub>x</sub> that becomes subject to the requirements of Subchapter B, Division 4 of this chapter on or after the applicable compliance date specified in paragraph (1) of this subsection, shall comply with the requirements of Subchapter B, Division 4 of this chapter as soon as practicable, but no later than 60 days after becoming subject.

(3) The owner or operator of any unit that is subject to the emission specifications in §117.410(a) of this title located at sources in the Dallas-Fort Worth eight-hour ozone nonattainment area that emit or have the potential to emit equal to or greater than 25 tpy but less than 50 tpy of NO<sub>x</sub>:

(A) submission of the initial control plan required by §117.450(b) of this title is required no later than May 7, 2025; and

(B) compliance with all other requirements of Subchapter B, Division 4 of this chapter is required as soon as practicable, but no later than November 7, 2025.

(4) The owner or operator of any stationary source of NO<sub>x</sub> that becomes subject to the requirements of Subchapter B, Division 4 of this chapter on or after the applicable compliance date specified in paragraph (3) of this subsection, shall comply with the requirements of Subchapter B, Division 4 of this chapter as soon as practicable, but no later than 60 days after becoming subject.

**§117.9110. Compliance Schedule for Bexar County Ozone Nonattainment Area Utility**

**Electric Generation Sources.**

(a) The owner or operator of each electric utility in the Bexar County ozone nonattainment area that is subject to the requirements of Subchapter C, Division 2 of this chapter (relating to Bexar County Ozone Nonattainment Area Utility Electric Generation Sources) shall comply with the requirements of Subchapter C, Division 2 of this chapter as soon as practicable, but no later than January 1, 2025.

(b) The owner or operator of any electric utility that becomes subject to the requirements of Subchapter C, Division 2 of this chapter on or after the applicable compliance date specified in subsection (a) of this section, shall comply with the requirements of Subchapter C, Division 2 of this chapter as soon as practicable, but no later than 60 days after becoming subject.

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

(a) The owner or operator of each utility electric power boiler or stationary gas turbine located in Atascosa, Bastrop, Bexar, Brazos, Calhoun, Cherokee, Fannin, Fayette, Freestone, Goliad, Gregg, Grimes, Harrison, Henderson, Hood, Hunt, Lamar, Limestone, Marion, McLennan, Milam, Morris, Nueces, Parker, Red River, Robertson, Rusk, Titus, Travis, Victoria, and Wharton Counties shall comply with the requirements of Subchapter E, Division 1 of this chapter (relating to Utility Electric Generation in East and Central Texas) as soon as practicable, but no later than the following dates:

(1) except as provided in subparagraph (C) of this paragraph, May 1, 2003, for units owned by utilities subject to the cost-recovery provisions of Texas Utilities Code, §39.263(b):

(A) the owner or operator shall use the period of May 1, 2003, through April 30, 2004, for the initial annual compliance period. Compliance for each subsequent annual period is on a calendar year basis. For example, the second annual compliance period is January 1, 2004, through December 31, 2004;

(B) the updated final control plan required by §117.3054 of this title (relating to Final Control Plan Procedures) must be submitted by May 31, 2004, and by January 31, 2005; and

(C) the owner or operator shall comply with the ammonia specification of §117.3010(2) of this title (relating to Emission Specifications) by May 1, 2005; and

(2) May 1, 2005, for all other units:

(A) the owner or operator shall use the period of May 1, 2005, through April 30, 2006, for the initial annual compliance period. Compliance for each subsequent annual period is on a calendar year basis. For example, the second annual compliance period is January 1, 2006, through December 31, 2006; and

(B) the updated final control plan required by §117.3054 of this title must be submitted by May 31, 2006, and by January 31, 2007.

(b) Beginning January 1, 2025, sources in Bexar County are no longer required to comply with the requirements of Subchapter E, Division 1 of this chapter.

**§117.9320. Compliance Schedule for Cement Kilns.**

(a) Except as specified in subsections (c) and (d) of this section, the owner or operator of each portland cement kiln placed into service before December 31, 1999, in Bexar, Comal, Ellis, Hays, and McLennan Counties shall be in compliance with the requirements of Subchapter E, Division 2 of this chapter (relating to Cement Kilns) as soon as practicable, but no later than the following dates:

(1) May 1, 2003, for cement kilns in Ellis County; and

(2) May 1, 2005, for cement kilns in Bexar, Comal, Hays, and McLennan Counties.

(b) Notwithstanding subsection (a)(1) of this section, for a cement kiln in Ellis County that the owner or operator has filed an application for modification of its facility to meet the requirements of Subchapter E, Division 2 of this chapter on or before May 30, 2003, the compliance schedule is extended until six months after the issuance of the permit for operation of a low-NO<sub>x</sub> burner and 12 months after issuance of the permit for operation of a secondary combustion system. Such application(s) must relate only to those modifications required to comply with Subchapter E, Division 2 of this chapter, and any issues incident thereto.

(c) The owner or operator of each portland cement kiln in Ellis County shall comply with the requirements of §117.3123 and §117.3142 of this title (relating to Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration Control Requirements; and Emission Testing and Monitoring for Eight-Hour Attainment Demonstration), and the applicable requirements of §117.3145 of this title (relating to Notification, Recordkeeping, and Reporting Requirements) that are associated with §117.3123 and §117.3142 of this title, as soon as practicable, but no later than March 1, 2009.

(1) The provisions regarding extension of compliance schedules in subsection (b) of this section do not apply to this subsection or the requirements of §117.3123, §117.3142, or the applicable requirements of §117.3145 of this title.

(2) If a contested case hearing is granted as a direct result of a permit application necessary to comply with the requirements of §117.3123 of this title, the compliance date of this subsection for the site affected by the contested case hearing is extended until no later than March 1, 2010. The compliance date for the affected site remains March 1, 2009, if:

(A) a contested case hearing is granted as a result of a permit application that includes modifications necessary to comply with §117.3123 of this title, but the contested case hearing is the result of modifications included in the permit that are unrelated to compliance with §117.3123 of this title, then the compliance date for the affected site remains March 1, 2009; or

(B) a contested case hearing is granted at the request of the owner or operator of the affected portland cement kiln or any third party affiliated with the owner or operator.

(d) The owner or operator of each portland cement kiln in Bexar County shall comply with the requirements of §117.3124 of this title (relating to Bexar County Control Requirements for Reasonably Available Control Technology (RACT)), and the applicable requirements of §117.3145 of this title (relating to Notification, Recordkeeping, and Reporting Requirements) as soon as practicable, but no later than January 1, 2025.

**SUBCHAPTER H: ADMINISTRATIVE PROVISIONS**

**DIVISION 2: COMPLIANCE Flexibility**

**§117.9800**

**Statutory Authority**

The amended rules are adopted under Texas Water Code (TWC), §5.102, concerning general powers; §5.103, concerning Rules; TWC, §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; TWC, §7.002, concerning Enforcement Authority, which authorizes the commission to enforce the provisions of the Water Code and the Health and Safety Code within the commission's jurisdiction; and under Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purpose of the Texas Clean Air Act.

The amendments are also adopted under THSC, §382.002, concerning Policy and Purpose, which establishes the commission's purpose to safeguard the state's air resources, consistent with the protection of public health, general welfare, and physical property; THSC, §382.011, concerning General Powers and Duties, which authorizes the commission to control the quality of the state's air; THSC, §382.012, concerning the State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air; THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe reasonable requirements for measuring and monitoring the emissions of air contaminants; and THSC, §382.021, concerning Sampling Methods and Procedures.

The adopted amendments implement TWC, §§5.102, 5.103 and 7.002; and THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, and 382.021.

**§117.9800. Use of Emission Credits for Compliance.**

(a) An owner or operator of a unit not subject to Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program) may meet emission control requirements of the sections specified in paragraphs (1) – (9) of this subsection, in whole or in part, by obtaining an emission reduction credit (ERC), mobile emission reduction credit (MERC), discrete emission reduction credit (DERC), or mobile discrete emission reduction credit (MDERC) in accordance with Chapter 101, Subchapter H, Division 1 or 4 of this title (relating to Emission Credit Banking and Trading; and Discrete Emission Credit Banking and Trading), unless there are federal or state regulations or permits under the same commission account number that contain a condition or conditions precluding such use:

(1) §§117.105, 117.205, 117.405, 117.1005, or 117.1105 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT));

(2) §117.110 or §117.1010 of this title (relating to Emission Specifications for Attainment Demonstration);

(3) §117.1015 of this title (relating to Alternative System-Wide Emission Specifications);



- (4) §117.115 of this title (relating to Alternative Plant-Wide Emission Specifications);
- (5) §§117.123, 117.423, or 117.3120 of this title (relating to Source Cap);
- (6) §§117.2010, 117.3010, or 117.3110 of this title (relating to Emission Specifications);
- (7) §§117.410, 117.1310, 117.2110, or 117.3310 of this title (relating to Emission Specifications for Eight-Hour Attainment Demonstration);
- (8) §117.3123 of this title (relating to Dallas-Fort Worth Eight-Hour Ozone Attainment Demonstration Control Requirements); or
- (9) §117.3124 of this title (relating to Bexar County Control Requirements for Reasonably Available Control Technology (RACT)).
- (b) An owner or operator of a unit subject to §§117.320, 117.1120, 117.1020, 117.1220, or 117.3020 of this title (relating to System Cap) may meet the emission control requirements of these sections in whole or in part, by complying with the requirements of Chapter 101, Subchapter H, Division 1 or 4 of this title, by obtaining an ERC, MERC, DERC, or MDERC, unless there are federal or state regulations or permits under the same commission account number that contain a condition or conditions precluding such use.

(c) For the purposes of this section, the term "reduction credit (RC)" refers to an ERC, MERC, DERC, or MDERC, whichever is applicable.

(d) Any lower nitrogen oxides (NO<sub>x</sub>) emission specification established under this chapter for the unit or units using RCs requires the user of the RCs to obtain additional RCs in accordance with Chapter 101, Subchapter H, Division 1 or 4 of this title and/or otherwise reduce emissions prior to the effective date of such rule change. For units using RCs in accordance with this section that are subject to new, more stringent rule limitations, the owner or operator using the RCs shall submit a revised final control plan to the executive director in accordance with §§117.156, 117.356, 117.456, 117.1056, 117.1256, and 117.1356 of this title (relating to Revision of Final Control Plan) and §117.252 and §117.1152 of this title (relating to Control Plan Procedures for Reasonably Available Control Technology (RACT)) to revise the basis for compliance with the emission specifications of this chapter. The owner or operator using the RCs shall submit the revised final control plan as soon as practicable, but no later than 90 days prior to the effective date of the new, more stringent rule. The owner or operator of the unit(s) currently using RCs shall calculate the necessary emission reductions per unit as follows.

**Figure: 30 TAC §117.9800(d) (No change)**