The Texas Commission on Environmental Quality (TCEQ or commission) adopts amendments to §§117.140, 117.145, 117.340, 117.345, 117.2035, and 117.2045 *without changes* to the proposed text as published in the September 5, 2008, issue of the *Texas Register* (33 TexReg 7443).

Sections 117.140, 117.145, 117.340, 117.345, 117.2035, and 117.2045 will be submitted to the United States Environmental Protection Agency (EPA) as revisions to the state implementation plan.

BACKGROUND AND SUMMARY OF THE FACTUAL BASIS FOR THE ADOPTED RULES

On October 15, 2007, Viridis Energy Texas, L.P., submitted two petitions for rulemaking regarding provisions for output-based monitoring alternatives for stationary engines and stationary gas turbines at major and minor sources of nitrogen oxides (NO_X) in the Houston-Galveston-Brazoria (HGB) ozone nonattainment area. The commission approved the petitions for rulemaking on December 5, 2007, and issued an order on December 13, 2007, directing the executive director to examine the issues in the petitions and to initiate rulemaking.

At the April 16, 2008, commissioners' agenda, the commissioners agreed to remand the proposed rule change and directed staff to examine expanding the proposed rules to include the Beaumont-Port Arthur (BPA) ozone nonattainment area. Staff concluded that expanding the rules to include the BPA ozone nonattainment area would provide additional flexibility for owners and operators of applicable sources to monitor unit activity levels in the manner most appropriate for their facility.

The rules in Chapter 117 currently require stationary reciprocating internal combustion engines and stationary gas turbines located at major sources of NO_X in the BPA and HGB ozone nonattainment areas

to each have a fuel flow meter installed. Stationary reciprocating internal combustion engines and stationary gas turbines located at minor sources of NO_X in the HGB ozone nonattainment area that are in the Mass Emission Cap and Trade (MECT) Program are also required to have a fuel flow meter installed. The adopted rule change will allow the use of output-based monitoring as an alternative to the engine and turbine fuel flow meter requirements for the BPA and HGB ozone nonattainment areas. The adopted rule change will be consistent with an option currently allowed under Chapter 117 for engines in the Dallas-Fort Worth (DFW) eight-hour ozone nonattainment area. During the recent DFW eight-hour ozone nonattainment area rulemaking under Chapter 117, a provision was added under §117.440(a)(2)(D), in response to comment, to allow the output-based alternative to fuel flow monitoring for stationary internal combustion engines and stationary gas turbines. Similar provisions were not provided for the BPA and HGB ozone nonattainment areas because no comments were accepted for the BPA and HGB ozone nonattainment areas at that time.

The adopted rules will amend the major source rule in the BPA ozone nonattainment area in Chapter 117, Subchapter B, Division 1, and amend both the major and minor source rules for the HGB ozone nonattainment area in Chapter 117, Subchapter B, Division 3 and Subchapter D, Division 1. These adopted changes will be consistent with the output-based monitoring option currently allowed for stationary reciprocating internal combustion engines and stationary gas turbines at major sources in the DFW eight-hour ozone nonattainment area. The adopted rule change applies to major sources of NO_X in the BPA and HGB nonattainment areas, and provides output-based monitoring as an additional alternative to the existing requirement to install fuel flow meters on stationary reciprocating internal combustion engines and stationary gas turbines. For consistency with the DFW eight-hour ozone nonattainment area requirements, a corresponding addition is needed to prescribe recordkeeping requirements for sources

using the output-based monitoring option. Owners or operators using output-based monitoring will be required to maintain records of daily average horsepower and hours of operation.

The adopted rule change also applies to minor sources of NO_X in the HGB ozone nonattainment area, and provides output-based monitoring as an additional alternative to the existing requirement to install fuel flow meters on stationary reciprocating internal combustion engines and stationary gas turbines. For consistency with the DFW eight-hour ozone nonattainment area requirements, a corresponding addition is needed to prescribe recordkeeping requirements for sources using the output-based monitoring option. Owners or operators using output-based monitoring will be required to maintain records of daily average horsepower and hours of operation.

SECTION BY SECTION DISCUSSION

The adopted rules amend the major source rules in the BPA ozone nonattainment area in Chapter 117, Subchapter B, Division 1, §117.140 and §117.145, and both the major and minor source rules for the HGB ozone nonattainment area in Chapter 117, Subchapter B, Division 3, §117.340 and §117.345, and Chapter 117, Subchapter D, Division 1, §117.2035 and §117.2045. These adopted changes will be consistent with the output-based monitoring option currently allowed for stationary engines and gas turbines at major sources in the DFW eight-hour ozone nonattainment area.

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

DIVISION 1, BEAUMONT-PORT ARTHUR OZONE NONATTAINMENT AREA MAJOR SOURCES

Section 117.140, Continuous Demonstration of Compliance

The commission adopts §117.140(a)(2) to include a subparagraph (D). Section 117.140(a)(2) provides for alternatives to the totalizing fuel flow meter requirement in §117.140(a). Adopted subparagraph (D) provides an additional output-based alternative for stationary reciprocating internal combustion engines and stationary gas turbines to the §117.140(a) requirement to install, calibrate, maintain, and operate totalizing fuel flow meters on each applicable unit listed under §117.140(a)(1). Applicable units in §117.140(a)(1)(B) and (C) include, respectively, stationary reciprocating internal combustion engines and stationary gas turbines.

The adopted new subparagraph (D) specifies that 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. This language is identical to existing rule text for the output-based monitoring alternative for stationary engines and stationary gas turbines in the DFW eight-hour ozone nonattainment area.

Section 117.145, Notification, Recordkeeping, and Reporting Requirements

The commission adopts §117.145(f) to include a paragraph (10) for recordkeeping requirements consistent with the horsepower and hours of operation data that would be collected by the output-based alternative monitoring provision of adopted §117.140(a)(2)(D). Existing §117.145(f) consists of the recordkeeping requirements for units subject to Division 1. The subsection directs owners or operators of

subject units to maintain written or electronic records of specified data for a period of at least five years and make available upon request by authorized representatives of the executive director, the EPA, or local air pollution control agencies having jurisdiction. Existing §117.145(f)(1) - (9) detail the types of data to be recorded depending on the specific compliance and monitoring methodologies specified in this division.

Adopted §117.145(f)(10) specifies the recordkeeping requirements of output-based monitoring data based on the existing recordkeeping rule text in §117.445(f)(3)(C) for output-based data collection in the DFW eight-hour ozone nonattainment area. Adopted §117.145(f)(10) states that an owner or operator electing to use the alternative monitoring system allowed under §117.140(a)(2)(D) shall record the daily average horsepower and total daily hours of operation. In addition, adopted paragraph (10) clarifies that records of annual fuel usage specified under §117.145(f)(1) are not required for units that are monitored according to adopted §117.140(a)(2)(D).

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

Section 117.340, Continuous Demonstration of Compliance

The commission adopts §117.340(a)(2) to include a subparagraph (D). Section 117.340(a)(2) provides for alternatives to the totalizing fuel flow meter requirement in §117.340(a). Adopted subparagraph (D) provides an additional output-based alternative for stationary reciprocating internal combustion engines

and stationary gas turbines to the §117.340(a) requirement to install, calibrate, maintain, and operate totalizing fuel flow meters on each applicable unit listed under §117.340(a)(1). Applicable units in §117.340(a)(1)(A)(ii) and (iii) include, respectively, stationary reciprocating internal combustion engines and stationary gas turbines.

The adopted new §117.340(a)(2)(D) specifies that 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. This language is identical to existing rule text for the output-based monitoring alternative for stationary engines and stationary gas turbines in the DFW eight-hour ozone nonattainment area.

Section 117.345, Notification, Recordkeeping, and Reporting Requirements

The commission adopts §117.345(f) to include a paragraph (12) for recordkeeping requirements consistent with the horsepower and hours of operation data that would be collected by the output-based alternative monitoring provision of adopted §117.340(a)(2)(D). Existing §117.345(f) consists of the recordkeeping requirements for units subject to this division. The subsection directs owners or operators of subject units to maintain written or electronic records of specified data for a period of at least five years and make available upon request by authorized representatives of the executive director, EPA, or local air pollution control agencies having jurisdiction. Existing §117.345(f)(1) - (11) detail the types of data to be recorded depending on the specific compliance and monitoring methodologies specified in this division and under 30 TAC Chapter 101, Subchapter H, Division 3, Mass Emissions Cap and Trade.

Adopted §117.345(f)(12) specifies the recordkeeping requirements of output-based monitoring data based on the existing recordkeeping rule text in §117.445(f)(3)(C) for output-based data collection in the DFW eight-hour ozone nonattainment area. Adopted §117.345(f)(12) states that an owner or operator electing to use the alternative monitoring system allowed under §117.340(a)(2)(D) shall record the daily average horsepower and total daily hours of operation. In addition, adopted paragraph (12) clarifies that records of annual fuel usage specified under §117.345(f)(1) are not required for units that are monitored according to adopted new §117.340(a)(2)(D).

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

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

Section 117.2035, Monitoring and Testing Requirements

The commission adopts §117.2035(a)(2) by adding a subparagraph (G), which provides an output-based monitoring alternative to installing, calibrating, maintaining, and operating totalizing fuel flow meters for stationary reciprocating internal combustion engines and stationary gas turbines at minor sources in the HGB ozone nonattainment area. Existing §117.2035(a)(2)(A) - (F) specifies alternatives to the fuel flow meter requirements of this section. This rulemaking adoption creates a subparagraph (G) to add an output-based monitoring alternative to the existing alternatives to the fuel flow monitoring requirement.

Adopted §117.2035(a)(2)(G) allows owners or operators to use a continuous monitoring system that

continuously monitors horsepower and hours of operation as an alternative to installing fuel meters. The monitoring system must be installed, calibrated, maintained, and operated according to the manufacturers' recommended procedures. This rule language is consistent with the existing output-based monitoring alternative for major sources in the DFW eight-hour ozone nonattainment area and the adopted major source output-based monitoring alternative included in this rulemaking.

Section 117.2045, Recordkeeping and Reporting Requirements

The commission adopts §117.2045(a) to include a paragraph (7) requiring records of daily average horsepower and total daily hours of operation for each engine that the owner or operator elects to use the output-based monitoring option under adopted §117.2035(a)(2)(G). Adopted paragraph (7) provides consistent recordkeeping and reporting requirements for data collected using the output-based alternative monitoring provisions for stationary engines and stationary gas turbines. Adopted §117.2045(a)(7) requires an owner or operator electing to use the alternative monitoring system allowed under adopted §117.2035(a)(2)(G) to maintain records of the daily average horsepower and total daily hours of operation for each stationary reciprocating internal combustion engine or stationary gas turbine. Adopted paragraph (7) clarifies that records of annual fuel usage specified under §117.2045(a) are not required for units that are monitored according to adopted §117.2035(a)(2)(G). These records must be maintained for at least five years and must be made available upon request to the authorized representatives of the executive director, EPA, or local air pollution control agencies having jurisdiction.

FINAL REGULATORY IMPACT ANALYSIS DETERMINATION

The commission reviewed the adopted rules in light of the regulatory analysis requirements of Texas Government Code, §2001.0225, and determined that the adopted rules do not meet the criteria for a major

environmental rule. A "major environmental rule" is a rule that is specifically intended 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.

The intent of the adopted rules is to provide flexibility by allowing the use of output-based monitoring as an alternative to the engine and turbine fuel flow meter requirements for the HGB and BPA ozone nonattainment areas. The adopted rules are also intended to add consistency to the rules; this option is currently allowed under Chapter 117 for stationary reciprocating internal combustion engines and stationary gas turbines in the DFW eight-hour ozone nonattainment area. Therefore, the specific intent of the rule is not to protect the environment or reduce risks to human health from environmental exposure.

The adopted rules will not affect in a material way the economy, a sector of the economy, productivity, jobs, the environment or the public health and safety of the state or a sector of the state. Under the adopted rules, the owners and operators would monitor the engine or turbine's horsepower output as opposed to the fuel flow input for emissions monitoring requirements. Specific costs for the output-based alternative monitoring option are not known. However, the alternative is provided as an option to an existing requirement; it is expected that owners or operators will only use the output-based monitoring if it is more cost-effective than the current requirement. The output-based monitoring is at least as accurate as the input-based fuel flow monitoring currently required. Therefore, the adopted rules will not have an adverse affect on the economy, the environment, or public health and safety.

Additionally, this rulemaking does not meet the definition of a major environmental rule because it does

not meet any of the four applicability requirements listed in Texas Government Code, §2001.0225(a). Texas Government Code, §2001.0225, only applies 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. This rulemaking action, which is designed to add flexibility and consistency to the rules, does not exceed an express requirement under state or federal law. There is no contract or delegation agreement that covers the topic that is the subject of this action.

Furthermore, the rulemaking is not adopted solely under the general powers of the agency, but is authorized by specific sections of Texas Health and Safety Code, Chapter 382 and the Texas Water Code, as cited in the STATUTORY AUTHORITY section of this preamble. The commission invited public comment regarding the draft regulatory impact analysis determination during the public comment period, but no comments were received.

TAKINGS IMPACT ASSESSMENT

The commission has evaluated the adopted rulemaking and made a preliminary assessment determining that Texas Government Code, §2007, Governmental Action Affecting Private Property Rights, is not applicable. Under Texas Government Code, §2007.002(5), "taking" means a governmental action that affects private real property 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 Section 17 or 19, Article I, Texas Constitution; or it means a governmental action that affects an owner's private real property that is the subject of the governmental action 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% in the market value of the affected private real property.

The adopted rule change would allow for an alternative NO_X emissions monitoring option for owners and operators of stationary reciprocating internal combustion engines and stationary gas turbines in the BPA and HGB ozone nonattainment areas. Promulgation and enforcement of these adopted rules will constitute neither a statutory nor constitutional taking of private real property. The adopted rules do not restrict or limit a landowner's rights to the property or reduce the market value of the property by 25%. Therefore, the adopted rules do not constitute a taking under Texas Government Code, Chapter 2007.

CONSISTENCY WITH THE COASTAL MANAGEMENT PROGRAM

The commission reviewed the adopted rulemaking and found it is a rulemaking identified in the Coastal Coordination Act Implementation Rules, 31 TAC §505.11(b)(4), relating to rules subject to the Coastal Management Program, and will, therefore, require that goals and policies of the Texas Coastal Management Program (CMP) be considered during the rulemaking process.

The commission reviewed this rulemaking for consistency with the CMP goals and policies in accordance with the regulations of the Coastal Coordination Council and determined that the rulemaking is procedural in nature and will have no substantive effect on commission actions subject to the CMP and is, therefore, consistent with CMP goals and policies.

The commission invited public comment regarding the consistency with the CMP during the public comment period. No comments were received concerning 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 amendments are adopted by the commission, owners or operators subject to the federal operating permit program that elect to comply with the optional output-based monitoring may need to revise their operating permit to include the new requirement.

PUBLIC COMMENT

Due to the effects of Hurricane Ike and to accommodate those affected by the hurricane, the public comment period was extended from October 6, 2008, to October 24, 2008**.** The public hearings scheduled for September 30, 2008, in Houston and October 1, 2008, in Beaumont were canceled and rescheduled for October 23, 2008, at the TCEQ Park 35 Circle Complex in Austin. A public hearing on the proposed rules was held in Austin on October 23, 2008, at 2:00 p.m. at the complex. No oral comments were received. The comment period closed on October 24, 2008. Written comments were received from the EPA, Texas Chemical Council (TCC), and Texas Instruments Inc. (TI).

RESPONSE TO COMMENTS

EPA requested the commission explain how a source in the HGB area that elects to use the output-based monitoring alternative option will be able to determine its mass emissions to show compliance with the MECT program.

The output-based monitoring alternative provides activity data equivalent with the existing monitoring specifications and can easily be converted into an annual mass emission rate for compliance with the MECT program. The output-based monitoring provisions adopted with this rulemaking provide the owner or operator with actual horsepower activity data and actual hours of operation. This activity data can then be multiplied by the measured NO_X emission rate in grams per horsepower-hour (g/hp-hr) and then converted to tons per year for determining the necessary MECT allowances needed for compliance. The NO_X g/hp-hr emission rate is determined according to the required test methods already specified in the rule and previously approved by the EPA for this determination. No change has been made to the rule based on this comment.

TCC expressed support for the proposed output-based alternative monitoring alternative, which will provide increased flexibility for owners and operators.

The commission appreciates TCC's comment and support. No change has been made to the rule based on this comment.

TI commented that the commission should increase the hours allowed for testing and maintenance under the exemptions for stationary gas turbines and stationary internal combustion engines used exclusively in emergency situations in §117.303(a)(6) and §117.2003(a)(2). In addition, TI recommended adding two new exceptions to the restriction on hours of operation for stationary diesel and dual-fuel engines in §§117.310(f), 117.410(g), 117.2030(c), and 117.2130(c). The two proposed new exceptions would exempt providing power to critical operations and safety equipment during planned maintenance activities

during the period October 1 through March 31, and providing back-up power sources to critical internal operations and safety equipment when power reliability is threatened. Finally, TI recommended that these suggested new exceptions and the other exceptions already provided under §§117.310(f), 117.410(g), 117.2030(c), and 117.2130(c) be included in the emergency use exemptions under §§117.303(a)(6), 117.403(a)(7), 117.2003(a)(2), and 117.2103(5).

The commission appreciates the comments from TI. TI did not submit comments on those proposed sections for amendment. The commission did not propose amendments to the sections commented on by TI and those sections are beyond the scope of this rulemaking. Therefore, the commission is prohibited from making any changes to those sections of Chapter 117 during this rulemaking. No change has been made to the rule based on these comments.

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

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

§117.140, §117.145

STATUTORY AUTHORITY

The amendments are adopted under the authority of the following: Texas Water Code (TWC), §5.102, concerning General Powers, §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act; 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 State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air.

The amendments are also adopted under THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe requirements for owners or operators of sources to make and maintain records of emissions measurements; THSC, §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe sampling

methods and procedures; and THSC, §382.051(d), concerning Permitting Authority of Commission; Rules, which authorizes the commission to adopt rules as necessary to comply with changes in federal law or regulations applicable to permits under THSC, Chapter 382.

The adopted amendments implement THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, 382.021, and 382.051(d).

§117.140. 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 ± 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 ± 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) Totalizing fuel flow meters are required for the following units that are subject to §117.105 or §117.110 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT); and Emission Specifications for Attainment Demonstration) and for stationary gas turbines that are exempt under §117.103(b)(6) of this title (relating to Exemptions):

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

(i) boilers;

(ii) process heaters; and

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

(B) stationary, reciprocating internal combustion engines not exempt by §117.103(a)(6), (a)(8), (b)(8), or (b)(9) of this title; and

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

(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_X) and diluent continuous emissions monitoring system (CEMS) under subsection (e) 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_X and diluent CEMS under subsection (e) 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_2) monitors.

(1) The owner or operator shall install, calibrate, maintain, and operate an O_2 monitor to measure exhaust O_2 concentration on the following units operated with an annual heat input greater than $2.2(10^{11})$ 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 (f) of this section.

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

(A) units listed in §117.103(b)(3) - (5) and (7) - (9) of this title;

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

(C) wood-fired boilers.

(3) The O_2 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 (e) of this section if O_2 is the monitored diluent under that subsection. However, if new O_2 monitors are required as a result of this subsection, the criteria in subsection (e) of this section should be considered the appropriate guidance for the location and calibration of the monitors.

(c) NO_X 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_X. 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 $2.2(10^{11})$ 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) boilers and process heaters that are vented through a common stack and the total rated heat input from the units combined is greater than or equal to 250 MMBtu/hr and the annual heat input combined is greater than $2.2(10^{11})$ Btu/yr;

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

(E) units that use a chemical reagent for reduction of NO_X; and

(F) units that the owner or operator elects to comply with the NO_X emission specifications of §117.105 or §117.110(a) of this title using a pounds per million British thermal unit (lb/MMBtu) limit on a 30-day rolling average.

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

(A) for purposes of §117.105 or §117.110(a) of this title, units listed §117.103(b)(3) - (5) and (7) - (9) of this title; and

(B) units subject to the NO_X CEMS requirements of 40 CFR Part 75.

(3) The owner or operator shall use one of the following methods to provide substitute emissions compliance data during periods when the NO_X monitor is off-line:

(A) if the NO_X 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 §117.1040(d) of this title (relating to Continuous Demonstration of Compliance);

(C) if the NO_X 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) if the methods specified in subparagraphs (A) - (C) of this paragraph are not used, the owner or operator shall use the maximum block one-hour emission rate as measured during the initial demonstration of compliance required in §117.135(f) of this title (relating to Initial Demonstration of Compliance).

(d) 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).

(e) 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).

(f) 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 Beaumont-Port Arthur Ozone Nonattainment Area Major Sources).

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

(g) Engine monitoring. The owner or operator of any stationary gas engine subject to the emission specifications of this division shall stack test engine NO_X and CO emissions as specified in §117.8140(a) of this title (relating to Emission Monitoring for Engines).

(h) 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 §117.105 of this title or §117.115 of this title (relating to Alternative Plant-Wide Emission Specifications) shall either:

(1) install, calibrate, maintain, and operate a NO_X CEMS or PEMS in compliance with this section and monitor CO in compliance with subsection (d) 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 ± 5.0%;

(B) the steam-to-fuel or water-to-fuel ratio monitoring data must be used for demonstrating continuous compliance with the applicable emission specification of §117.105 or §117.115 of this title; and

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

(i) Run time meters. The owner or operator of any stationary gas turbine or stationary internal combustion engine claimed exempt using the exemption of §117.103(a)(6)(D), (b)(2), or (b)(8) 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.

(j) Hydrogen (H_2) monitoring. The owner or operator claiming the H_2 multiplier of §117.105(b)(6) or §117.115(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_2.

(1) The total H_2 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_2 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_2 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_2 by volume or greater.

(B) The process flow diagram of the process unit that is the source of the H_2 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_2 will continuously remain, as a minimum, at 99% H_2 by volume or greater during its use as a fuel to the combustion unit.

(k) Data used for compliance. After the initial demonstration of compliance required by §117.135 of this title, the methods required in this section must be used to determine compliance with the emission specifications of §117.105 or §117.110(a) 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 specifications.

(l) Enforcement of NO_X RACT limits. If compliance with §117.105 of this title is selected, no unit subject to §117.105 of this title may be operated at an emission rate higher than that allowed by the emission specifications of §117.105 of this title. If compliance with §117.115 of this title is selected, no

unit subject to §117.115 of this title may be operated at an emission rate higher than that approved by the executive director under §117.152(b) of this title (relating to Final Control Plan Procedures for Reasonably Available Control Technology).

(m) Loss of NO_X 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 §117.103(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.

§117.145. 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, 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 an affected source shall submit notification to the appropriate regional office and any local air pollution control agency having jurisdiction as follows:

(1) verbal notification of the date of any testing conducted under §117.135 of this title (relating to Initial Demonstration of Compliance) at least 15 days prior to such date followed by written notification within 15 days after testing is completed; and

(2) verbal notification of the date of any continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) relative accuracy test audit (RATA) conducted under §117.140 of this title (relating to Continuous Demonstration of Compliance) at least 15 days prior to such date followed by written notification within 15 days after testing is completed; and

(c) 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 any testing conducted under §117.135 of this title and any CEMS or PEMS RATA conducted under §117.140 of this title:

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

(2) not later than the compliance schedule specified in §117.9000 of this title (relating to Compliance Schedule for Beaumont-Port Arthur Ozone Nonattainment Area Major Sources).

(d) Semiannual reports. The owner or operator of a unit required to install a CEMS, PEMS, or water-to-fuel or steam-to-fuel ratio monitoring system under §117.140 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 (relating to Beaumont-Port Arthur Ozone Nonattainment Area Major Sources) and the monitoring system performance. All reports must be postmarked or received by the 30th day following the end of each calendar semiannual period. 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:

(A) for stationary gas turbines using steam-to-fuel or water-to-fuel ratio monitoring to demonstrate compliance in accordance with §117.140(h)(2) of this title, excess emissions are computed as each one-hour period that the average steam or water injection rate is below the level defined by the control algorithm as necessary to achieve compliance with the applicable emission specifications in §117.105 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT)); and

(B) for units complying with §117.123 of this title (relating to Source Cap), excess emissions are each daily period that the total nitrogen oxides (NO_X) emissions exceed the rolling 30-day average or the maximum daily NO_X cap;

(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 that 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, PEMS, or water-to-fuel or steam-to-fuel ratio 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 operating time for the reporting period or the CEMS, PEMS, or water-to-fuel or steam-to-fuel ratio monitoring

system downtime for the reporting period is greater than or equal to 5.0% of the total 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 §§117.105, 117.110, or 117.115 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT); Emission Specifications for Attainment Demonstration; and Alternative Plant-Wide Emission Specifications) 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. Written reports must include the following information:

(1) the magnitude of excess emissions based on the quarterly emission checks of §117.130(d)(7) of this title (relating to Operating Requirements) and the biennial emission testing required for demonstration of emissions compliance in accordance with §117.140(g) 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, United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction. The records must include:

(1) for each unit subject to §117.140(a) of this title, records of annual fuel usage;

(2) for each unit using a CEMS or PEMS in accordance with §117.140 of this title, monitoring records of:

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

(B) daily emissions and fuel usage (or stack exhaust flow) for units complying with an emission limit enforced on a daily or rolling 30-day average. Emissions must be recorded in units of:

(i) pounds per million British thermal units 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) §117.130(d)(7) of this title; and

(ii) §117.140(g) of this title; and

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

(4) for each stationary gas turbine monitored by steam-to-fuel or water-to-fuel ratio in accordance with §117.140(h) of this title, records of hourly:

(A) pounds of steam or water injected;

(B) pounds of fuel consumed; and

(C) the steam-to-fuel or water-to-fuel ratio;

(5) for hydrogen (H_2) fuel monitoring in accordance with §117.140(j) of this title, records of the volume percent H_2 every three hours;

(6) for units claimed exempt from emission specifications using the exemption of §117.103(a)(6)(D) or (b)(2) of this title (relating to Exemptions), either records of monthly:

(A) fuel usage, for exemptions based on heat input; or

(B) hours of operation, for exemptions based on hours per year of operation. In addition, for each engine claimed exempt under §117.103(a)(6)(D) of this title, written records must be maintained of the purpose of engine operation and, if operation was for an emergency situation, identification of the type of emergency situation and the start and end times and date(s) of the emergency situation;

(7) records of carbon monoxide measurements specified in §117.140(d) of this title;

(8) records of the results of initial certification testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS, PEMS, or steam-to-fuel or water-to-fuel ratio monitoring systems;

(9) records of the results of performance testing, including initial demonstration of compliance testing conducted in accordance with §117.135 of this title; and

(10) for each stationary reciprocating internal combustion engine and stationary gas turbine for which the owner or operator elects to use the alternative monitoring system allowed under

§117.140(a)(2)(D) of this title, records of the daily average horsepower and total daily hours of operation. Units that are monitored according to §117.140(a)(2)(D) of this title are not required to keep records of annual fuel usage as required by paragraph (1) of this subsection.

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

§117.340, §117.345

STATUTORY AUTHORITY

The amendments are adopted under the authority of the following: Texas Water Code (TWC), §5.102, concerning General Powers, §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act; 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 State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air.

The amendments are also adopted under THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe requirements for owners or operators of sources to make and maintain records of emissions measurements; THSC, §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe sampling

methods and procedures; and THSC, §382.051(d), concerning Permitting Authority of Commission; Rules, which authorizes the commission to adopt rules as necessary to comply with changes in federal law or regulations applicable to permits under THSC, Chapter 382.

The adopted amendments implement THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, 382.021, and 382.051(d).

§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 ± 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 ± 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_X) 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_X 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_2) monitors.

(1) The owner or operator shall install, calibrate, maintain, and operate an O_2 monitor to measure exhaust O_2 concentration on the following units operated with an annual heat input greater than $2.2(10^{11})$ 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_2 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_2 is the monitored diluent under that subsection. However, if new O_2 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_X 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_X. 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 $2.2(10^{11})$ 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 NO_X;

(E) units that the owner or operator elects to comply with the 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; and

(B) units subject to the NO_X CEMS requirements of 40 CFR Part 75.

(3) The owner or operator shall use one of the following methods to provide substitute emissions compliance data during periods when the NO_X monitor is off-line:

(A) if the NO_X 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_X 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_X monitor downtime periods less than 24 consecutive hours, use the maximum block one-hour NO_X emission rate, in lb/MMBtu, from the previous 24 operational hours of the unit;

(ii) for NO_X monitor downtime periods equal to or greater than 24 consecutive hours, use the maximum block one-hour NO_X 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_X monitor downtime, the owner or operator shall use the maximum block one-hour NO_X 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).

(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_X 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_X CEMS or PEMS shall stack test engine NO_X 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_X CEMS or PEMS shall stack test engine NO_X 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_X 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 ± 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_2) monitoring. The owner or operator claiming the H_2 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_2.

(1) The total H_2 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_2 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_2 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_2 by volume or greater.

(B) The process flow diagram of the process unit that is the source of the H_2 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_2 will continuously remain, as a minimum, at 99% H_2 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_X 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_X 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_2 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_X 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_X 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_X emission rate, including, but not limited to, installation of post-combustion controls, low-NO_X 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_X 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.

§117.345. 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 an affected source shall submit notification to the appropriate regional office and any local air pollution control agency having jurisdiction as follows:

(1) verbal notification of the date of any testing conducted under §117.335 of this title (relating to Initial Demonstration of Compliance) at least 15 days prior to such date followed by written notification within 15 days after testing is completed; and

(2) verbal notification of the date of any continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) relative accuracy test audit (RATA) conducted under §117.340 of this title (relating to Continuous Demonstration of Compliance) at least 15 days prior to such date followed by written notification within 15 days after testing is completed.

(c) 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 any testing conducted under §117.335 of this title and any CEMS or PEMS RATA conducted under §117.340 of this title:

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

(2) not later than the compliance schedule specified in §117.9020 of this title (relating to Compliance Schedule for Houston-Galveston-Brazoria Ozone Nonattainment Area Major Sources).

(d) Semiannual reports. The owner or operator of a unit required to install a CEMS, PEMS, or water-to-fuel or steam-to-fuel ratio monitoring system under §117.340 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 (relating to Houston-Galveston-Brazoria Ozone Nonattainment Area Major Sources) and the monitoring system performance. For sources in the mass emissions cap and trade program of Chapter 101, Subchapter H, Division 3 of this title (relating to Mass Emissions Cap and Trade Program), that are no longer subject to §117.305 of this title (relating to Emission Specifications for Reasonably Available

Control Technology (RACT)), the report is only a monitoring system report as specified in paragraph (3) of this subsection. All reports must be postmarked or received by the 30th day following the end of each calendar semiannual period. 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:

(A) for stationary gas turbines using steam-to-fuel or water-to-fuel ratio monitoring to demonstrate compliance in accordance with §117.340(i)(2) of this title, excess emissions are computed as each one-hour period that the average steam or water injection rate is below the level defined by the control algorithm as necessary to achieve compliance with the applicable emission specifications in
§117.305 of this title; and

(B) for units complying with §117.323 of this title (relating to Source Cap), excess emissions are each daily period that the total nitrogen oxides (NO_X) emissions exceed the rolling 30-day average or the maximum daily NO_X cap;

(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 that 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, PEMS, or water-to-fuel or steam-to-fuel ratio 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 operating time for the reporting period or the CEMS, PEMS, or water-to-fuel or steam-to-fuel ratio monitoring system downtime for the reporting period is greater than or equal to 5.0% of the total 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 §§117.305, 117.310, or 117.315 of this title (relating to Emission Specifications for Reasonably Available Control Technology (RACT); Emission Specifications for Attainment Demonstration; and Alternative Plant-Wide Emission Specifications) 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. Written reports must

include the following information:

(1) the magnitude of excess emissionsbased on the quarterly emission checks of §117.330(d)(7) of this title (relating to Operating Requirements) and the biennial emission testing required for demonstration of emissions compliance in accordance with §117.340(h) 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 §117.340(a) of this title, records of annual fuel usage;

(2) for each unit using a CEMS or PEMS in accordance with §117.340 of this title,

monitoring records of:

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

(B) daily emissions and fuel usage (or stack exhaust flow) for units complying with an emission limit enforced on a daily or rolling 30-day average. Emissions must be recorded in units of:

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

(ii) pounds or tons per day; or

(C) daily emissions and fuel usage (or stack exhaust flow) for units subject to the mass emissions cap and trade program of Chapter 101, Subchapter H, Division 3 of this title. Emissions must be recorded in units of:

(i) lb/MMBtu heat input or in the units of the applicable emission specification in §117.310(a) of this title; 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) §117.330(d)(7) of this title; and

(ii) §117.340(h) of this title; and

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

(4) for each stationary gas turbine monitored by steam-to-fuel or water-to-fuel ratio in accordance with §117.340(i) of this title, records of hourly:

(A) pounds of steam or water injected;

(B) pounds of fuel consumed; and

(C) the steam-to-fuel or water-to-fuel ratio;

(5) for hydrogen (H_2) fuel monitoring in accordance with §117.340(k) of this title, records of the volume percent H_2 every three hours;

(6) for units claimed exempt from emission specifications using the exemption of §117.303(a)(6)(D), (a)(10), (a)(11), or (b)(2) of this title (relating to Exemptions), either records of monthly:

(A) fuel usage, for exemptions based on heat input; or

(B) hours of operation, for exemptions based on hours per year of operation. In addition, for each engine claimed exempt under §117.303(a)(6)(D) of this title, written records must be maintained of the purpose of engine operation and, if operation was for an emergency situation, identification of the type of emergency situation and the start and end times and date(s) of the emergency situation;

(7) records of carbon monoxide measurements specified in §117.340(e) of this title;

(8) records of the results of initial certification testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS, PEMS, or steam-to-fuel or water-to-fuel ratio monitoring systems;

(9) records of the results of performance testing, including initial demonstration of compliance testing conducted in accordance with §117.335 of this title;

(10) for each stationary diesel or dual-fuel engine, records of each time the engine is operated for testing and maintenance, including:

(A) date(s) of operation;

(B) start and end times of operation;

(C) identification of the engine; and

(D) total hours of operation for each month and for the most recent 12 consecutive months;

(11) for units subject to the ammonia monitoring requirements of §117.340(d) of this title, records that are sufficient to demonstrate compliance with the requirements of §117.8130 of this title (relating to Ammonia Monitoring). For the sorbent or stain tube option, these records must include the ammonia injection rate and NO_X stack emissions measured during each sorbent or stain tube test; and

(12) for each stationary reciprocating internal combustion engine and stationary gas turbine for which the owner or operator elects to use the alternative monitoring system allowed under §117.340(a)(2)(D) of this title, records of the daily average horsepower and total daily hours of operation. Units that are monitored according to §117.340(a)(2)(D) of this title are not required to keep records of annual fuel usage as required by paragraph (1) of this subsection.

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

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

§117.2035, §117.2045

STATUTORY AUTHORITY

The amendments are adopted under the authority of the following: Texas Water Code (TWC), §5.102, concerning General Powers, §5.103, concerning Rules, and §5.105, concerning General Policy, which authorize the commission to adopt rules necessary to carry out its powers and duties under the TWC; and Texas Health and Safety Code (THSC), §382.017, concerning Rules, which authorizes the commission to adopt rules consistent with the policy and purposes of the Texas Clean Air Act; 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 State Air Control Plan, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air.

The amendments are also adopted under THSC, §382.016, concerning Monitoring Requirements; Examination of Records, which authorizes the commission to prescribe requirements for owners or operators of sources to make and maintain records of emissions measurements; THSC, §382.021, concerning Sampling Methods and Procedures, which authorizes the commission to prescribe sampling

methods and procedures; and THSC, §382.051(d), concerning Permitting Authority of Commission; Rules, which authorizes the commission to adopt rules as necessary to comply with changes in federal law or regulations applicable to permits under THSC, Chapter 382.

The adopted amendments implement THSC, §§382.002, 382.011, 382.012, 382.016, 382.017, 382.021, and 382.051(d).

§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 ± 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 ± 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_X) 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_X 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_2) monitors. If the owner or operator installs an O_2 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_X 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_X, carbon monoxide (CO), and O_2 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_X control.

(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_X, CO, and O_2 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_X 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_X 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_X emission rate, including, but not limited to, installation of post-combustion controls, low-NO_X 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_X 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_X 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.

§117.2045. Recordkeeping and Reporting Requirements.

(a) Recordkeeping. The owner or operator of a unit subject to §117.2010 of this title (relating to Emission Specifications) or claimed exempt under §117.2003(b) of this title (relating to Exemptions) 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) records of annual fuel usage;

(2) for each unit using a continuous emission monitoring system (CEMS) or predictive emission monitoring system (PEMS) in accordance with §117.2035(c) of this title (relating to Monitoring and Testing Requirements), 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; and

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

(i) pounds per million British thermal units heat input; and

(ii) pounds or tons per day;

(3) for each stationary internal combustion engine subject to §117.2010 of this title, records of:

(A) emissions measurements required by §117.2030(b)(5) of this title (relating to Operating Requirements); and

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

(4) records of carbon monoxide measurements specified in §117.2030(b)(5) of this title;

(5) records of the results of initial certification testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS, PEMS, or steam-to-fuel or water-to-fuel ratio monitoring systems;

(6) records of the results of performance testing, including the testing conducted in accordance with §117.2035(e) of this title; and

(7) records of daily average horsepower and total daily hours of operation for each stationary reciprocating internal combustion engine or stationary gas turbine that the owner or operator elects to use the alternative monitoring system allowed under §117.2035(a)(2)(G) of this title. Units that are monitored according to §117.2035(a)(2)(G) of this title are not required to keep records of annual fuel usage as required by paragraph (1) of this subsection.

(b) Records for exempt engines. Written records of the number of hours of operation for each day's operation must be made for each engine claimed exempt under §117.2003(a)(2)(E), (H), or (I) of this title or §117.2030(b)(5) of this title. In addition, for each engine claimed exempt under §117.2003(a)(2)(E) of this title, written records must be maintained of the purpose of engine operation

and, if operation was for an emergency situation, identification of the type of emergency situation and the start and end times and date(s) of the emergency situation. The records must be maintained for at least five years and must be made available upon request to representatives of the executive director, the United States Environmental Protection Agency, or any local air pollution control agency having jurisdiction.

(c) Records of operation for testing and maintenance. The owner or operator of each stationary diesel or dual-fuel engine shall maintain the following records for at least five years and make them available upon request by authorized representatives of the executive director, the United States Environmental Protection Agency, or local air pollution control agencies having jurisdiction:

(1) date(s) of operation;

(2) start and end times of operation;

(3) identification of the engine; and

(4) total hours of operation for each month and for the most recent 12 consecutive months.