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pollution control. The terms in this section are applicable to permit review for major source construction and major source modification in nonattainment areas. In addition to the terms which are defined by the TCAA, and in §101.1 of this title (relating to Definitions), the following words and terms, when used in §116.150 and §116.151 of this title (relating to Nonattainment Review), shall have the following meanings, unless the context clearly indicates otherwise.

(1)-(10) (No change.)

(11) Major modification-As follows.

(A) Any physical change in, or change in the method of operation of a facility/stationary source that causes a significant net emissions increase for any air contaminant for which an NAAQS has been issued. At a facility/stationary source that is not major prior to the increase, the increase by itself must equal or exceed that specified in the MAJOR SOURCE column of Table I of this section. At an existing major facility/stationary source, the increase must equal or exceed that specified in the MAJOR MODIFICATION column of Table I.

Figure: 30 TAC §116.12(11)(A)

(B) A physical change or change in the method of operation shall not include:

(i) [~~(A)~~] routine maintenance, repair, and replacement;

(ii) [~~(B)~~] use of an alternative fuel or raw material by reason of an order under the Energy Supply and Environmental Coordination Act of 1974, §2(a) and (b) (or any superseding legislation) or by reason of a natural gas curtailment plan under [~~pursuant to~~] the Federal Power Act;

(iii) [~~(C)~~] use of an alternative fuel by reason of an order or rule of the FCAA [~~Federal Clean Air Act~~], §125;

(iv) [~~(D)~~] use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;

(v) [~~(E)~~] use of an alternative fuel or raw material by a stationary source which the source was capable of accommodating before December 21, 1976 (unless such change would be prohibited under any federally enforceable permit condition established after December 21, 1976) or the source is approved to use under any permit issued under regulations approved under [~~pursuant to~~] this chapter;

(vi) [~~(F)~~] an increase in the hours of operation or in the production rate (unless the change is prohibited under any federally enforceable permit condition which was established after December 21, 1976); or

(vii) [~~(G)~~] any change in ownership at a stationary source.

Figure: 30 TAC §116.12(11)(G)

(12)-(18) (No change.)

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Filed with the Office of the Secretary of State on October 26, 1998.

TRD-9816648

Margaret Hoffman

Director, Environmental Law Division

Texas Natural Resource Conservation Commission
Proposed date of adoption: February 24, 1999
For further information, please call: (512) 239-1966

Subchapter B. New Source Review Permits

Division 5. Nonattainment Review

30 TAC §116.150

STATUTORY AUTHORITY

The amendment is proposed under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §§382.012, 382.017, and 382.051. Section 382.012 requires the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air. Section 382.017 authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA, while §382.051 authorizes the commission to adopt rules as necessary to comply with changes in federal law or regulations applicable to permits issued under the Health and Safety Code, Chapter 382.

The proposed amendment implements Health and Safety Code, §382.012.

§116.150. *New Major Source or Major Modification in Ozone Nonattainment Areas.*

(a) (No change.)

(b) For sources located [~~in the Dallas/Fort Worth ozone nonattainment area (Collin, Dallas, Denton, and Tarrant Counties) or~~] in the El Paso ozone nonattainment area (El Paso County), the requirements of this section do not apply to NO_x emissions.

(c) (No change.)

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Filed with the Office of the Secretary of State on October 26, 1998.

TRD-9816647

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Chapter 117. Control of Air Pollution From Nitrogen Compounds

The commission proposes amendments to §117.10, concerning Definitions, §§117.101, 117.103, 117.105, 117.107, 117.109, 117.111, 117.113, 117.115, 117.117, 117.119, and 117.121, concerning Utility Electric Generation; §§117.201, 117.203, 117.205, 117.207-117.209, 117.211, 117.213, 117.215, 117.217, 117.219, 117.221, and 117.223, concerning Commercial, Institutional and Industrial Sources; §§117.510, 117.520, 117.540, concerning Administrative Provisions; and §117.601, concerning Gas-Fired Steam Generation. The changes would clarify and improve implementation of certain portions of the commission's rules for existing major stationary sources of nitrogen oxides (NO_x) emissions in ozone nonattain-

ment areas and would extend the proposed amended rules to the Dallas/Fort Worth (DFW) ozone nonattainment area.

EXPLANATION OF PROPOSED RULES One purpose of these proposed revisions to Chapter 117 and to the State Implementation Plan (SIP) is to extend NO_x reasonably available control technology (RACT) requirements to DFW, an area defined by Collin, Dallas, Denton, and Tarrant Counties. The 1990 Federal Clean Air Act (FCAA), §182(f), requires NO_x RACT be applied to all major sources of NO_x in ozone nonattainment areas, unless a demonstration is made that NO_x reductions would not contribute to or would not be necessary for attainment of the ozone standard. By policy, the United States Environmental Protection Agency (EPA) requires photochemical grid modeling to demonstrate whether the §182(f) NO_x measures would contribute to ozone attainment. On November 28, 1994, the EPA granted conditional approval of a §182(f) exemption from NO_x measures for DFW. EPA approval was based on the commission's petition which, based on the modeling at the time, showed that VOC reductions alone would be sufficient for attainment. This meant that NO_x reductions in DFW would be in excess of the reductions necessary for attainment of the ozone standard and were not needed. A condition of EPA's exemption was that it would be rescinded if the area did not attain the ozone standard by November 15, 1996, and modeling later showed that NO_x reductions would contribute to attainment.

The DFW area did not attain the ozone standard in 1996. In March 1998, in accordance with the FCAA, §181(b)(2)(B), the EPA reclassified the DFW area from moderate to serious, based on a monitored violation of the ozone standard. The reclassification required the state to submit a new SIP, by March 1999, that demonstrates attainment by November 15, 1999.

In 1996, the agency began to develop new modeling for the DFW area and now is using newer air quality models with improved meteorological and emission inputs. The new modeling, which is being provided for public hearing and comment concurrent with this rulemaking, shows that NO_x reductions contribute to attainment of the ozone standard in the DFW area. The modeling further indicates that NO_x reductions are a necessary step toward the area's attaining the ozone standard (for both the existing one-hour and the new eight-hour standard). The failure to attain the standard by 1996 and the results of the new modeling mean the rationale for the NO_x exemption for DFW is no longer valid. Based on their conditional approval of the §182(f) exemption (NO_x waiver), EPA will rescind the NO_x waiver and reinstate the requirements for these rules, upon submittal of modeling indicating NO_x reductions will contribute to attainment in the DFW area.

The commission also proposes these revisions in order to improve the implementation of the existing NO_x RACT rules in the Houston/Galveston (HGA) and Beaumont/Port Arthur (BPA) ozone nonattainment areas. These changes are proposed in response to proposals received from outside entities and from commission staff. Some changes add more explicit recordkeeping and reporting requirements with the objectives of making the requirements more certain and logical, and easier to comply with and to enforce. A benefit is less time spent in determining compliance. Several sections are proposed to be reorganized significantly to make the rules easier to read and understand. Other proposed clarifications will eliminate the need for rule interpretations which are currently posted on the agency's website via the Office of Air Quality's Operating Permits Division.

Numerous minor style changes are proposed. All references in Chapter 117 to "undesignated head" have been changed to "division" to comply with current *Texas Register* requirements for the terminology of rule structure. The term "executive director" replaces references to "Texas Natural Resource Conservation Commission" where the intent is to refer to agency staff. The term "executive director" as defined in the commission's rules, includes any authorized individual designated to act for the executive director. Text changes are proposed to reduce the number of words without changing meaning or reducing clarity. This type of change includes certain cross references which are changed to specify the next higher (more general) level of rule structure. Other cross references are updated to reflect the reorganized requirements.

The proposed changes to §117.10, concerning Definitions: add DFW to the definitions of applicable ozone nonattainment area, electric power generating system, and major source, and alphabetize the named areas and counties within those definitions; delete the definition of emergency standby gas turbine/engine because this definition is not used in Chapter 117; and modify the definition of unit to clarify that the limitation on replaced capacity applies to emission credits, not the capacity itself. This last revision removes a limitation on replacement units, consistent with a revision to §117.203(b)(1) made through adoption on May 25, 1994 (19 TexReg 4529). At the time, the definition was left unrevised, inadvertently. In addition, the definitions are numbered, to comply with current *Texas Register* requirements.

The proposed changes to §117.101, concerning Applicability: add DFW to the applicable ozone nonattainment areas; alphabetize the named areas; list the affected electric utility units numerically; and insert the defined term "unit" to refer to the affected equipment. Using the term clarifies that the rule applies to equipment placed into service before November 15, 1992 and to functionally identical replacements.

The proposed changes to §117.103, concerning Exemptions, deletes subsection (a), which cross references a now outdated version of the upset and maintenance rules in Chapter 101, concerning the commission's air General Rules. Since the subsection is only a restatement of other rules outside Chapter 117, its deletion will reduce the volume of rules and simplify future rule amendments, without changing the substance of exemptions.

The proposed change to §117.105(f)-(i), concerning Emission Specifications, combines the gas and oil emission limits into single subsections, reducing repetitive language. The proposed changes to §117.105(n)(2) update the compliance date by referencing §117.510, concerning Compliance Schedule for Utility Electric Generation, and eliminate repetitive language.

The proposed changes to §117.107, concerning Alternative System-wide Emission Specifications, reorganize the requirements using more of a listing format, to make the text less dense and more readable. The proposed changes to §117.109, concerning Initial Control Plan Procedures, clarify subsection (a) by: specifying the applicable areas; numbering the distinctive requirements; and adding paragraph (1), which states that the section applies only to sources which were major for NO_x emissions before November 15, 1992. The commission does not propose to require initial control plans for DFW sources. The sources are simpler and fewer compared to HGA and BPA, and such plans would provide little information that is not already

readily accessible. The proposed change to §117.111(c), concerning Initial Demonstration of Compliance, clarifies that the initial relative accuracy test audit (RATA) is part of the initial verification of operational status of the continuous emission monitoring system (CEMS) or predictive emission monitoring system (PEMS). In addition, a cross reference to the proposed test report requirements in the industrial emission specification is proposed in §117.111(b) to specify the minimum contents of compliance test reports if the test is based on a 40 Code of Federal Regulations (CFR) 60, Appendix A test apparatus.

Proposed changes to §117.113, concerning Continuous Demonstration of Compliance, reorganize the requirements for clarity. The proposed changes move the current carbon monoxide (CO) monitoring requirements from subsection (k) to subsection (b). This follows the principle of ordering requirements of more general applicability and importance to the front of the rule. Subsections are given titles (catchlines) to identify the topics covered. Requirements are listed to make the text less dense. Requirements to install fuel meters are collected in one subsection. Existing subsection (j), now relettered to subsection (k), is split into two subsections, parallel to the industrial source rule language.

The proposed changes to §117.115, concerning Final Control Plan Procedures, add specificity to the requirements. The added specificity could reduce the time to complete the plan and is anticipated to significantly reduce the time necessary to assess a source's compliance with NO_x RACT. A proposed change to §117.115(a) clarifies and potentially reduces the number of units needed to be listed in the plan, by substituting a reference to the units specified in §117.101, regarding Applicability, for the less precise term, "affected units." To facilitate assessment of compliance with NO_x RACT, new §117.115(a)(2) and (6) require citation of the specific rule or exemption used for NO_x compliance. New subsection (a)(3) is designed to reduce the volume of paperwork and simplify tracking, by allowing owners or operators to identify applicable test reports that have previously been submitted, rather than requiring all such reports to be resubmitted at the final compliance date. For many electric utility units, CEMS certifications have already been submitted under the acid rain program and would not need to be resubmitted. The requirement would also aid tracking, by identifying units for which the emission compliance test data will be submitted after the final compliance date, based on 30-day average emission specifications. The proposed changes to §117.115(b) place the requirements in a list format for readability and require identification of the maximum rated capacity and calculations of the system-wide emission limit, to assist in verification of compliance. Proposed new §117.115(c) requires certain information to be submitted on forms provided by the executive director (staff). The expected benefit is primarily in reducing the time necessary for staff to assess compliance with NO_x RACT. The requirement to provide copies of the completed forms electronically and on hard copy would allow the staff to distribute the information more efficiently using computer technology while retaining the safeguards of paper. Proposed new §117.115(d) places the submittal deadlines at the end of the section and clarifies that the plan is to be updated with 30-day average compliance information that may not be available by the final compliance date.

The commission proposes to delete subsection (a) of §117.119, concerning Notification, Recordkeeping, and Reporting Requirements. Since the subsection was last revised, the record-

keeping requirements of §101.7 for start-ups and shutdowns have been made more specific, making §117.119(a) unnecessary. The proposed changes to §117.119 also add catchlines and number certain requirements for readability. A proposed change to the excess emission reporting requirements of §117.119(d), now relettered (c), reduces the frequency of reporting from quarterly to semiannual. This change would result in some savings of effort in the regulated community and would not prevent persons from maintaining a quarterly schedule, if preferred. For consistency, the record retention time specified in recordkeeping, §117.119(e), now relettered (d), is changed from two years to five years. The sources subject to Chapter 117 are also subject to FCAA, Title V permit requirements, which specify a five-year period for retention of compliance records. The recordkeeping wording is simplified and references to units which monitor operating parameters under the acid rain rules are added to the list of units for which compliance recordkeeping is required. This addition assures that units monitored under this option will have data to show compliance.

The proposed changes to §117.121, concerning Alternative Case Specific Specifications, list the requirements for readability. The cross reference to the commission's procedural rules is updated and the reference to the information that can be found in those rules is deleted.

The proposed changes to §117.201, concerning Applicability, add DFW to the applicable ozone nonattainment areas and alphabetize the named areas. The proposed changes to §117.203, concerning Exemptions, add two types of units which recover sulfur compounds from process streams to the list of exemptions. These additions are consistent with the intent of the Chapter 117 rules developed in 1992, which was to exempt units which commingle fuel and process chemicals. The exemption level for internal combustion engines in DFW is added to §117.203(8)(B), consistent with the level established in the original NO_x RACT rule for a serious ozone nonattainment area.

The proposed change to §117.205(a)(3), concerning Emission Specifications, updates the compliance date by referencing §117.520, concerning Compliance Schedule for Commercial, Institutional, and Industrial Combustion Sources. Other changes to §117.205(a) and (b) eliminate repetitive language. The proposed change to §117.205(b)(6) clarifies that the hydrogen multiplier may not be used to increase limits set by permit. The proposed change to §117.205(d)(2) sets the emission specification for rich-burn gas engines in DFW, consistent with the specification previously established in the NO_x RACT rule for a serious ozone nonattainment area. The commission proposes to delete §117.205(h), originally drafted to clarify applicability. The proposed insertion of the modifier "NO_x" in the introductory sentences of §117.207, concerning Alternative Plant-wide Emission Specifications, and §117.223(a), concerning Source Cap, provide clarification more efficiently. The reduction in words improves readability.

The proposed changes to §117.207, concerning Alternative Plant-wide Emission Specifications, reorganize the requirements, using listing and tabular formats, to make the text less dense and more readable. Proposed new §117.207(f)(3) would clarify that NO_x opt-in units need to comply with the ammonia and carbon monoxide limits. The purpose of the limits is to require good practice of NO_x control, and the opt-in units should not be exempt from existing standards.

The proposed changes to §117.209, concerning Initial Control Plan Procedures, clarify subsection (a) by: specifying the applicable areas; numbering the distinctive requirements; and adding paragraph (1), which states that the section applies only to sources which were major for NO_x emissions before November 15, 1992. The commission does not propose to require initial control plans for DFW sources. The sources are simpler and fewer compared to HGA and BPA, and such plans would provide little information that is not already readily accessible.

The proposed changes to §117.211(a), concerning Initial Demonstration of Compliance, list requirements to reduce the density of the text and clarify that initial testing requirements apply to opt-in sources. The proposed changes to §117.211(c) and (f) clarify that the initial RATA is part of the initial verification of operational status of the CEMS or PEMS. The addition of §117.211(f)(4) specifies initial compliance procedures for sources complying with the source cap.

Proposed new §117.211(g) specifies the minimum contents of compliance stack test and monitor certification reports. The requirements are extracted from Attachment 7, "Contents of Stack Test Reports," from "Air Program Inspector's Manual - Stationary Source and CEMS Test Observation and Test Report Review Protocol," agency publication RG-31d, January 1994. In turn, Attachment 7 is a condensed version of Chapter 14, "Contents of Sampling Reports," from "Sampling Procedures Manual," Texas Air Control Board, July 1985. Chapter 14 is routinely specified in construction permit test requirements. The intent of requiring minimum contents is to ensure that stack sampling resource expenditures, which were estimated at \$2000 per test in the original November 20, 1992 NO_x RACT rule proposal (17 TexReg 8144), provide the information necessary to confirm emission compliance. Since these contents have been long established through permit requirements, many existing compliance test reports should be conformable to these proposed standards.

Proposed changes to §117.213, concerning Continuous Demonstration of Compliance, reorganize the requirements for clarity. The new organization is around elements of the monitoring, rather than sizes of emission units. Titles are added to subsections to identify the topics covered and requirements are listed to make the text less dense. The requirements for fuel meters are consolidated in §117.213(a), from five subsections. In response to frequent requests for clarification, a sentence is added, expressing that "totalizing" may be accomplished by a computer. Units required to install oxygen monitors are listed in §117.213(b). The current CO monitoring requirements are moved from subsection (l) to subsection (d), consistent with the principle of ordering requirements of more general applicability and importance toward the front of the rule section. The commission proposes to revise the allowance to share CEMS, currently in §117.213(b), from a limit of three units to a standard based on performance. The revision, proposed in §117.213(e)(3), is in response to a request from a representative of an affected company which has been allowed by permit to share one CEMS among four ethylene furnaces.

In response to a request from a representative of an affected company, new §117.213(e)(1)(C) clarifies that certain ongoing Appendix F quality assurance procedures for CEMS apply after the final compliance date. Similarly, in response to a rule petition, new §117.213(f)(5)(B) and (6) specify the time frame for certain RATA required for PEMS. These changes help to

clarify between requirements which must be performed before the final compliance date and those which continue after the final compliance date, as part of ongoing quality assurance. In addition, the changes provide some incentive to install CEMS or PEMS earlier than required, by eliminating the costs associated with performing ongoing quality assurance before the final compliance date. Early monitoring system installation will reduce the potential for a temporary shortage of stack testers, or other service bottlenecks to occur, as a result of the required installation of approximately 300 NO_x monitoring systems by the final compliance date. A copy of the petition may be obtained upon request by contacting Randy Hamilton, Air Policy and Regulations Division, 239-1512.

The proposed changes to §117.215, concerning Final Control Plan Procedures, add specificity to the requirements. The added specificity could reduce the time to complete the plan and is anticipated to significantly reduce the time necessary to assess a source's compliance with NO_x RACT. A proposed change to §117.215(a) clarifies and potentially reduces the number of units needed to be listed in the plan, by substituting a reference to the units specified in §117.201, regarding Applicability, for the less precise term, "affected units." To facilitate assessment of compliance with NO_x RACT, new §117.215(a)(1), (2), and (6) require citation of the specific rule or exemption used for NO_x compliance for any unit potentially subject to emission specifications under the division. New §117.215(a)(5) is designed to reduce the volume of paperwork and simplify tracking, by allowing owners or operators to identify applicable test reports that have previously been submitted, rather than requiring all such reports to be resubmitted at the final compliance date. The requirement would also aid tracking, by identifying units for which the emission compliance test data will be submitted after the final compliance date, based on 30-day average emission specifications.

The proposed changes to §117.215(b) place the requirements in a list format for readability and require the owner or operator to provide the maximum rated capacity for each unit and calculations of the plant-wide emission limit, to assist in verification of compliance. Proposed changes to §117.215(c) add paragraphs (1)-(4) to require submittal of calculations and values of key variables necessary to calculate the source cap. Proposed new §117.215(d) requires information to be submitted on forms provided by the executive director (staff). The expected benefit is primarily in reducing the time necessary for staff to assess compliance with NO_x RACT. The requirement to provide copies of the completed forms electronically and on hard copy would allow the staff to distribute the information more efficiently using computer technology while retaining the safeguards of paper. Persons required to prepare the plans should benefit from not having to develop forms themselves. The forms will be readily accessible on the agency's website and through conventional means. Proposed new §117.215(e) places the submittal deadlines at the end of the section and clarifies that the plan is to be updated with 30-day average compliance information that may not be available by the final compliance date.

The commission proposes to delete subsection (a) of §117.219, concerning Notification, Recordkeeping, and Reporting Requirements. Since the subsection was last revised, the recordkeeping requirements of §101.7 for start-ups and shutdowns have been made more specific, making §117.219(a) unnecessary. The proposed changes to §117.219 also add catchlines and number certain requirements for readability. A pro-

posed change to the excess emission reporting requirements of §117.219(d) and (e), now relettered (c) and (d), reduces the frequency of reporting from quarterly to semiannual. This change would result in some savings of effort in the regulated community and would not prevent persons from maintaining a quarterly schedule, if preferred. A semiannual reporting frequency is consistent with the reporting frequency specified for federal operating permits in §122.145 of this title, concerning Reporting Terms and Conditions. Proposed new §117.219(c)(1)(B) defines periods of excess emissions which must be reported for units operating under a source cap. For consistency, the record retention time specified in recordkeeping, §117.219(f), now relettered (e), is changed from two years to five years. The sources subject to Chapter 117 are also subject to federal operating permit requirements, which specify a five-year period for retention of compliance records.

Additional paragraphs adding specific recordkeeping requirements §117.219(e)(2)-(8) are proposed in order to consolidate the requirements in one location and to assure that recordkeeping tracks the methods of determining continuous compliance in §117.213 of this title. The purpose of the additions is to assure that units monitored under various compliance options will have the proper data to demonstrate compliance. The types of additional records specified are consistent with the recordkeeping requirements under Chapter 122, relating to Federal Operating Permits. In addition, the added CO recordkeeping addresses a deficiency identified by the EPA in the previous set of revisions to Chapter 117.

The proposed changes to §117.221, concerning Alternative Case Specific Specifications, use a list format to improve readability. The cross reference to the commission's procedural rules is updated and the reference to the information that can be found in those rules is deleted.

The proposed change to §117.223(a), concerning Source Cap, adds the modifier "NO_x" in the opening sentence, in order to clarify that the source cap is an alternative only to the NO_x emission specifications of §117.105, not the ammonia and CO limits. The purpose of the limits is to require good practice of NO_x control. The proposed change to §117.223(e) revises the reporting frequency to semiannual, consistent with and for the same reasons as discussed previously for reporting required under §117.219 of this title. The proposed change to §117.223(i) substitutes the term "initial" for "final" in the last sentence of the subsection. The final control plan demonstrates initial compliance; the terminology follows from previously adopting the term "initial control plan" to refer to a plan which is substantively a preliminary control plan.

The proposed changes to §117.510, concerning Compliance Schedule for Utility Electric Generation, and §117.520, concerning Compliance Schedule for Commercial, Institutional and Industrial Combustion Sources, subdivide the sections to allow for a separate compliance schedule for sources located in DFW. The commission is proposing a compliance date for DFW of November 15, 1999. This is the current statutory date by which the area is required to attain the federal ozone standard. However, this allows only nine months from adoption of the proposed rule to the final compliance date, which is considerably shorter than the corresponding time for HGA and BPA. The commission solicits information regarding the feasibility of sources in DFW to comply with Chapter 117 by November 15, 1999. If a longer schedule is thought necessary, information should be provided to support the recommended schedule.

Proposed changes to §117.540, concerning Phased Reasonably Available Control Technology, subdivide the section to create a parallel schedule for sources located in DFW. The existing requirements for HGA and BPA become located under subsection (a), rather than the current "implied (a)". In addition, in §117.540(a)(2) and in §117.540(a)(9), the term "executive director" replaces "commission", to more accurately reflect the level in the agency at which the action occurs. The proposed change to §117.540(a)(8) deletes an exception which is now repetitive with the commission's procedural rules at §50.37, concerning Motion for Reconsideration. The commission proposes the same schedule for phased RACT for DFW as for HGA, but may lengthen the schedule if the final compliance date is later.

FISCAL NOTE Jeff Grymkoski, Director of Strategic Planning and Appropriations, has determined that for the first five-year period the sections are in effect, there will be no significant fiscal implications for state or local government as a result of administration or enforcement of the rules. Extending the proposed modified NO_x RACT rules to DFW will require periodic inspection and compliance verification of sources by inspectors of the commission or the local air pollution control program. The rules will create minimal additional costs to government associated with administration or enforcement of the rules, because those sources are already inspected annually. However, the rules will require one city in the area to install emission controls and at least one emissions monitor on city-owned electric utility boilers. The costs of these requirements are a result of complying with the proposed rules, rather than enforcing or administering them. These compliance costs are estimated between \$140,000 and \$200,000 per year for each of the first five years that the rules will be in effect. The additional reporting requirements proposed in the final control plans will reduce the time required to assess compliance in each nonattainment area.

PUBLIC BENEFIT/COST NOTE Mr. Grymkoski also has determined that for each year of the first five years the sections as proposed are in effect, the anticipated public benefit will be reductions of NO_x emissions and ambient ozone levels. DFW does not currently meet the federal health standard for ozone. The costs to persons required to comply with these sections as proposed are estimated as follows. The proposal applies emission specifications to boilers, gas turbines, process heaters, and rich-burn gas-fired engines in DFW. There do not appear to be any gas turbines, process heaters, or rich-burn gas engines in the area that would be subject to emission controls under the rule. However, if any control costs were incurred for these units, they would be less than \$2000 per ton of NO_x reduced. An analysis of the agency's 1996 emissions inventory data indicate that there are 12 companies/entities in the area which operate sources which are major for NO_x. The information obtained from the inventory and from telephone inquiries also indicates 41 boilers owned or operated by the 12 entities would be affected by the rule's emission limitations in the DFW area. Of these, 36 are utility power boilers, and 5 are institutionally-owned boilers.

Two cities in DFW operate municipal electric utility plants with a total of 13 power boilers. One of these municipalities appears to comply already with the proposed Chapter 117 emission requirements under a system-wide average. Preliminary analysis of the other municipal utility indicates that burner modifications may be required to reduce NO_x at a capital cost of about \$775,000, or \$5 per kilowatt (kW) of electric production capacity. In addition, a NO_x monitor would be required. For the

purposes of developing this note, it is assumed that a CEMS would be installed, at a cost of about \$250,000. For this municipality, operating costs are expected to be about \$50,000 per year, for the NO_x CEMS. However, the capital costs may vary between \$140,000 and \$200,000 for each year of the first five years that the rule will be in effect.

One investor-owned electric utility operates 23 gas-fired electric utility power boilers in the area, which would be subject to emission limits. The system-wide emission reductions required to comply with Chapter 117 NO_x RACT are in the range of 25-35%, according to preliminary estimates provided by the utility. There are numerous types of combustion modification that could be applied to meet the proposed limits. For purposes of developing this note, it will be assumed that low- NO_x burners are used. Capital costs are \$10/kW; operating costs, \$1200/ton NO_x reduced. These capital and operating cost factors are estimates, derived by representatives of several major electric utilities in the southwest states Ozone Transport Assessment Group, a group formed in response to an EPA ozone control initiative. The utility representatives developed the factors from "Electric Utility NO_x Reduction Technology Options for Application by the Ozone Transport Assessment Group," January 1996. If these controls were required of each of the utility's power boilers, the capital cost would be \$51 million, or about \$10 million for each year of the first five years that the rule will be in effect. Operating costs would be between \$4 and \$5 million per year, applying the stated cost and reduction estimates to NO_x emissions reported in 1996.

Two institutional sources were identified that operate five boilers that would be subject to emission limits under the rule. Information indicates that these boilers are of high heat release design, for which the proposed emission specification is 0.20 pound NO_x per million British thermal units (Btu) of heat input. Available test information for three of the five boilers indicates that they presently comply with this emission specification. Although there is no emission test data presently available for the other two boilers, it is assumed that their emission rates are similar to the other three, and therefore will not need to reduce emissions to comply with the proposed rule.

The proposed rule however requires the five boilers to operate with oxygen trim systems. The cost to install oxygen or CO trim systems are estimated to range between \$75,000 and \$100,000 per boiler. It is anticipated that the installation of these systems will provide fuel savings in an amount which will offset the capital investment within the first five year period that these rules are in effect.

The 1996 emissions inventory analysis and telephone inquiries revealed the information that two companies had boilers that would have been subject to the rule in 1996, but have since replaced them, or are in the process of replacing them. These new boilers will not be subject to the rule, since the proposed rule does not apply to units installed after November 15, 1992, unless they are functionally identical replacements intended to provide emission reduction credits for other units.

There are approximately 12 industrial boilers, with rated heat input greater than or equal to 40 MMBtu/hr at major NO_x sources, which would require fuel use meters. Installed costs for fuel flow meters are estimated to range from \$3500 to \$10,000 per meter.

This proposed rulemaking also applies to owners or operators of existing major sources of NO_x in BPA and HGA. The affected

persons would be required to maintain records and report compliance status and excess emissions somewhat differently from the current requirements. The changes should not significantly increase the cost to comply with this rule. The proposal would also reduce the frequency of reporting and the number of hourly records of fuel use required to be kept.

SMALL BUSINESS ANALYSIS The proposed amendments generally do not apply to small businesses, since most major sources of NO_x are not small businesses. The agency has been unable to identify any major sources of NO_x in DFW which are small businesses. The cost to comply with the proposed recordkeeping and reporting requirements are not significant.

DRAFT REGULATORY IMPACT ANALYSIS The commission has reviewed the proposed rulemaking in light of the regulatory analysis requirements of Texas Government Code (the Code), §2001.0225, and has determined that the rulemaking is not subject to §2001.0225 because although it meets the definition of "major environmental rule" as defined in the Code, it does not meet any of the four applicability requirements listed in §2001.0225(a). The amendments implement requirements of the FCAA. The FCAA, §110 requires states to submit SIPs which contain enforceable measures to achieve the National Ambient Air Quality Standards (NAAQS). Section 110(k)(5) requires the EPA to require states to revise a SIP, on a reasonable deadline, if the EPA finds the SIP to be substantially inadequate. The EPA published notice in the February 18, 1998 Federal Register of a requirement to submit a new attainment demonstration SIP for the ozone NAAQS for DFW by March 21, 1999. The proposed rules, which reduce ambient NO_x and ozone in DFW, will be submitted to the EPA upon adoption, as one of several measures of the required new attainment demonstration.

These rules will also implement NO_x RACT in DFW and improve the implementation of NO_x RACT in HGA and BPA. The FCAA, §182(f), requires any moderate and above ozone nonattainment area to implement NO_x RACT, unless the EPA exempts the area under exemption provisions of §182(f). Although DFW currently is covered by such a waiver, EPA will rescind the waiver and reinstate the requirements for these rules, upon submittal of modeling indicating NO_x reductions will contribute to attainment in the DFW area. The modeling will be submitted to EPA concurrently with this rule proposal.

This proposal is not an express requirement of a state law, but was developed specifically in order to implement federal law. The proposal is part of a new ozone attainment demonstration SIP for DFW, required by the FCAA, §110. The proposal also implements the FCAA, §182(f). This proposal does not involve an agreement or contract between the state and an agency or representative of the federal government to implement a state and federal program, and was not developed solely under the general powers of the agency.

Other proposed modifications to Chapter 117 do not meet the definition of "major environmental rule" in the Code. These changes, proposed to improve implementation of the rule, affect: applicability, exemption, testing, monitoring, recordkeeping, and reporting requirements. The changes do not require additional control equipment or measures, and the cost to comply with these requirements is not significant.

TAKINGS IMPACT ASSESSMENT The commission has prepared a Takings Impact Assessment for these sections under Texas Government Code, §2007.043. The following is a

summary of that assessment. The specific purposes of these amendments are: to develop a new attainment demonstration SIP for the ozone NAAQS for DFW, to implement NO_x RACT in DFW, and to improve the implementation of NO_x RACT in HGA and BPA. If adopted, certain major sources located in DFW will be subject to new control measures. Installation of such control equipment could conceivably place a burden on private, real property. However, under §2007.003(b)(4) and (b)(13) of the Texas Government Code, Chapter 2007 does not apply to this action. Under §2007.003(b)(4), Chapter 2007 does not apply to an action that is reasonably taken to fulfill an obligation mandated by federal law. The proposed amendments will implement requirements of the FCAA, §§110 and 182(f). Also, §2007.003(b)(13) states that Chapter 2007 does not apply to an action that: (1) is taken in response to a real and substantial threat to public health and safety; (2) is designed to significantly advance the health and safety purpose; and (3) does not impose a greater burden than is necessary to achieve the health and safety purpose. This action is taken in response to the DFW area exceeding the federal ambient air quality standard for ground-level ozone, which adversely affects public health, primarily through irritation of the lungs. The action significantly advances the health and safety purpose by reducing ambient NO_x and ozone levels in DFW. Attainment of the ozone standard will eventually require substantial NO_x reductions. Any NO_x reductions resulting from the current rulemaking are no greater than what the best scientific research indicates is necessary to achieve the desired ozone levels. However, this rulemaking is only one step among many necessary for attaining the ozone standard. In addition, the requirements are expressed as performance specifications, and the rules contain multiple compliance methods to minimize costs of compliance.

Other proposed changes, to improve the implementation of NO_x RACT, affect: applicability, exemptions, control requirements, testing, reporting, and recordkeeping. These changes do not require additional control equipment or measures, and do not materially affect private real property. The costs of complying with these requirements are not significant.

COASTAL MANAGEMENT PLAN The commission has determined that this rulemaking action relates to an action or actions subject to the Texas Coastal Management Program (CMP) in accordance with the Coastal Coordination Act of 1991, as amended (Texas Natural Resources Code, §§33.201 et. seq.), and the commission's rules in 30 TAC Chapter 281, Subchapter B, concerning Consistency with the Texas Coastal Management Program. As required by 31 TAC §505.11(b)(2) and 30 TAC §281.45(a)(3) relating to actions and rules subject to the CMP, commission rules governing air pollutant emissions must be consistent with the applicable goals and policies of the CMP. The commission has reviewed this rulemaking action for consistency with the CMP goals and policies in accordance with the rules of the Coastal Coordination Council, and has determined that this rulemaking action is consistent with the applicable CMP goals and policies. The primary CMP policy applicable to this rulemaking action is the policy that commission rules comply with regulations at 40 CFR to protect and enhance air quality in the coastal area. The rules, which require additional reductions of air emissions in DFW and improve enforceability of the rules in HGA and BPA, will result in reductions of ambient NO_x and ozone concentrations. The proposed rules are consistent with the applicable CMP policy because they are consistent with Title 40. Title 40, Part 51, sets out requirements for states to prepare, adopt, and submit implementation plans for the attain-

ment of the NAAQS. The adopted rules would be submitted to EPA under these requirements. Interested persons may submit comments on the consistency of the proposed rules with the CMP during the public comment period.

PUBLIC HEARINGS The commission will be holding a public hearing in Irving on December 1, 1998, at 7:00 p.m. at the City of Irving Central Library Auditorium located at 801 West Irving Boulevard to receive comments on proposed revisions pertaining to the NO_x RACT requirements for the DFW area. A second hearing will be held in Houston on December 3, 1998 at 2:00 p.m. at the City of Houston Pollution Control Building Auditorium located at 7411 Park Place Boulevard to receive comments on the proposed revisions pertaining to the HGA and BPA areas. The hearings are structured for the receipt of oral or written comments by interested persons. Individuals may present oral statements when called upon in order of registration. Open discussion within the audience will not occur during the hearings; however, an agency staff member will be available to discuss the proposal 30 minutes prior to each hearing and will answer questions before and after the hearings.

SUBMITTAL OF COMMENTS Written comments may be mailed to Heather Evans, Office of Policy and Regulatory Development, MC 205, P.O. Box 13087, Austin, Texas 78711-3087 or faxed to (512) 239-4808. All comments should reference Rule Log Number 98030-117-AI. Comments must be received by 5:00 p.m., December 7, 1998. For further information or questions concerning this proposal, please contact Randy Hamilton, Air Policy and Regulations Division, (512) 239-1512.

Persons with disabilities who have special communication or other accommodation needs who are planning to attend the hearings should contact the agency at (512) 239-4900. Requests should be made as far in advance as possible.

Subchapter A. Definitions

30 TAC §117.10

STATUTORY AUTHORITY The amendment is proposed under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.012, which requires the commission to develop a general, comprehensive plan for the proper control of the state's air; §382.016, which authorizes the commission to prescribe requirements for owners or operators of sources to make and maintain records of emissions measurements; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; and §382.051(d), which authorizes the commission to adopt rules as necessary to comply with changes in federal law or regulations applicable to permits under Chapter 382.

The proposed amendment implements the Health and Safety Code, §382.012.

§117.10. Definitions.

Unless specifically defined in the Texas Clean Air Act or the general rules of this title, the terms in this chapter shall have the meanings commonly used in the field of air pollution control. Additionally, the following meanings apply, unless the context clearly indicates otherwise.

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

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

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

(B) Dallas/Fort Worth ozone nonattainment area - An area consisting of Collin, Dallas, Denton, and Tarrant Counties.

(C) [~~(B)~~] Houston/Galveston ozone nonattainment area - An area consisting of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, and Waller [~~Chambers, Fort Bend, Galveston, Brazoria, and Montgomery~~] Counties.

(3) Auxiliary steam boiler - Any combustion equipment within an electric power generating system, as defined in this section, that is used to produce steam for purposes other than generating electricity.

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

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

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

(7) Btu - British thermal unit.

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

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

(10) Electric power generating system - All boilers, steam generators, auxiliary steam boilers, and gas turbines used in an electric power generating system which are owned or operated by a municipality or a Public Utility Commission of Texas regulated utility that are located within the [~~Houston/Galveston~~ or] Beaumont/Port Arthur, Dallas/Fort Worth, or Houston/Galveston ozone nonattainment areas.

~~{Emergency standby gas turbine or engine - A gas turbine or engine operated only as a mechanical or electrical power source for a facility when the primary power source has been rendered inoperable, except due to power interruption pursuant to an interruptible power supply agreement.}~~

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

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

CO boiler, referring to the heat content at 60 degrees Fahrenheit, as being zero.

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

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

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

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

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

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

(A) greater than or equal to 40 million Btu per hour (MMBtu/hr), but less than 100 MMBtu/hr and an annual heat input less than or equal to 2.8(10¹¹) Btu per year (Btu/yr), based on a rolling 12-month average; or

(B) greater than or equal to 100 MMBtu/hr and an annual heat input less than or equal to 2.2(10¹¹) Btu/yr, based on a rolling 12-month average.

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

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

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

~~{(A) at least 25 tons per year (tpy) of nitrogen oxides (NO_x) and is located in the Houston/Galveston ozone nonattainment area;}~~

(A) [~~(B)~~] at least 50 tons per year (tpy) [~~tpy~~] of nitrogen oxides (NO_x) [~~NO_x~~] and is located in the Beaumont/Port Arthur ozone nonattainment area;

(B) at least 50 tpy of NO_x and is located in the Dallas/Fort Worth ozone nonattainment area; or

(C) at least 25 tpy of NO_x and is located in the Houston/Galveston ozone nonattainment area.

(22) Maximum rated capacity - The maximum design heat input, expressed in MMBtu/hr, unless:

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

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

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

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

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

(24) Nitric acid - Nitric acid which is 30% to 100% in strength.

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

(26) Nitrogen oxides (NO_x) - The sum of the nitric oxide and nitrogen dioxide in the flue gas or emission point, collectively expressed as nitrogen dioxide.

(27) Parts per million by volume (ppmv) - All ppmv emission limits specified in this rule are referenced on a dry basis.

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

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

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

(31) Process heater - Any combustion equipment fired with liquid and/or gaseous fuel which is used to transfer heat from combustion gases to a process fluid, superheated steam, or water for the purpose of heating the process fluid or causing a chemical reaction. The term "process heater" does not apply to any unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion equipment, or to boilers or steam generators as defined in this section.

(32) Rich-burn engine - A spark-ignited, Otto cycle, four-stroke, naturally aspirated or turbocharged engine that is capable of being operated with an exhaust stream oxygen concentration equal

to or less than 0.5% by volume, as originally designed by the manufacturer.

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

(34) Stationary internal combustion engine - A reciprocating engine either attached to a foundation or if not so attached is operated or is intended to be operated at a single facility for more than six months, including any replacement engine for a specific application which lasts or is intended to last for more than six months.

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

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

(37) Unit - Any boiler, steam generator, process heater, stationary gas turbine, or stationary internal combustion engine, as defined in this section, which is either:

(A) placed into service prior to November 15, 1992; or

(B) placed into service after June 9, 1993 as functionally identical replacement for an existing unit or group of units subject to the provisions of this chapter. Any emission credits resulting from the operation of such units shall be [and] limited to the cumulative maximum rated capacity of the units replaced.

(38) Utility boiler or steam generator - Any combustion equipment owned or operated by a municipality or Public Utility Commission of Texas regulated utility, fired with solid, liquid, and/or gaseous fuel, used to produce steam for the purpose of generating electricity.

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

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Filed with the Office of the Secretary of State on October 26, 1998.

TRD-9816655
Margaret Hoffman
Director, Environmental Law Division
Texas Natural Resource Conservation Commission

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Subchapter B. Combustion at Existing Major Sources

Division 1. Utility Electric Generation

30 TAC §§117.101, 117.103, 117.105, 117.107, 117.109, 117.111, 117.113, 117.115, 117.117, 117.119, 117.121

STATUTORY AUTHORITY The amendments are proposed under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.012, which requires the commission to develop a general, comprehensive plan for the proper control of the state's air; §382.016, which authorizes the commission to prescribe requirements for owners or operators of sources to make and maintain records of emissions measurements; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; and §382.051(d), which authorizes the commission to adopt rules as necessary to comply with changes in federal law or regulations applicable to permits under Chapter 382.

The proposed amendments implement the Health and Safety Code, §382.012.

§117.101. *Applicability.*

(a) The provisions of this division [~~undesignated head~~] (relating to [~~concerning~~] Utility Electric Generation) shall apply to the following units [~~utility boilers, steam generators, auxiliary steam boilers, and gas turbines~~] used in an electric power generating system owned or operated by a municipality or a Public Utility Commission of Texas regulated utility located within the [~~Houston/Galveston and~~] Beaumont/Port Arthur, Houston/Galveston, or Dallas/Fort Worth ozone nonattainment areas:

- (1) utility boilers;
- (2) steam generators;
- (3) auxiliary steam boilers; and
- (4) gas turbines.

(b) The provisions of this division [~~undesignated head~~] are applicable for the life of each affected unit within an electric power generating system or until this division [~~undesignated head~~] or sections of this title which are applicable to an affected unit are rescinded.

§117.103. *Exemptions.*

[(a) The provisions of §117.105 of this title (relating to Emission Specifications) or §117.107 of this title (relating to Alternative System-Wide Emission Specifications) shall not apply during periods of major upset or maintenance under the requirements of §101.6 of this title (relating to Notification Requirements for Major Upset), §101.7 of this title (relating to Notification Requirements for Maintenance), and §101.11 of this title (relating to Exemptions from Rules and Regulations).]

(a) [(b)] Units exempted from the provisions of this division [~~undesignated head~~] (relating to Utility Electric Generation), except for §117.109(b)(1) of this title (relating to Initial Control Plan Procedures) and §117.113(h) of this title (relating to Continuous Demonstration of Compliance), include the following:

- (1) any new units placed into service after November 15, 1992;
- (2) any utility boiler, steam generator, or auxiliary steam boiler with an annual heat input less than or equal to 2.2(10¹¹) Btu per year; or

(3) stationary gas turbines and engines, which are:

(A) used solely to power other engines or gas turbines during start-ups; or

(B) demonstrated to operate less than 850 hours per year, based on a rolling 12-month average.

(b) [(e)] The fuel oil firing emission limitation of §117.105(c) or §117.107(b) of this title [~~(relating to Emission Specifications and Alternative System-wide Emission Specifications)~~] shall not apply during an emergency operating condition declared by the Electric Reliability Council of Texas or the Southwest Power Pool, or any other emergency operating condition which necessitates oil firing. All findings that emergency operating conditions exist are subject to the approval of the executive director. The owner or operator of an affected unit shall give the executive director and any local air pollution control agency having jurisdiction verbal notification as soon as possible but no later than 48 hours after declaration of the emergency. Verbal notification shall identify the anticipated date and time oil firing will begin, duration of the emergency period, affected oil-fired equipment, and quantity of oil to be fired in each unit, and shall be followed by written notification containing this information no later than five days after declaration of the emergency. The owner or operator of an affected unit shall give the executive director and any local air pollution control agency having jurisdiction final written notification as soon as possible but no later than two weeks after the termination of emergency fuel oil firing. Final written notification shall identify the actual dates and times that oil firing began and ended, duration of the emergency period, affected oil-fired equipment, and quantity of oil fired in each unit.

§117.105. *Emission Specifications.*

(a)-(e) (No change.)

(f) No person shall allow the discharge into the atmosphere from any stationary gas turbine with a megawatt (MW) rating greater than or equal to 30 MW and an annual electric output in MW-hours (MW-hr) of greater than or equal to the product of 2,500 hours and the MW rating of the unit, NO_x emissions in excess of a block one-hour average of:

(1) 42 parts per million by volume (ppmv) at 15% oxygen (O₂), dry basis, while firing natural gas; and [-]

(2) 65 ppmv at 15% O₂, dry basis, while firing fuel oil.

[(g) No person shall allow the discharge into the atmosphere from any stationary gas turbine with a MW rating greater than or equal to 30 MW and an annual electric output in MW-hr of greater than or equal to the product of 2,500 hours and the MW rating of the unit, NO_x emissions in excess of a block one-hour average of 65 ppmv at 15% O₂, dry basis, while firing fuel oil.]

(g) [(h)] No person shall allow the discharge into the atmosphere from any stationary gas turbine used for peaking service with an annual electric output in MW-hr of less than the product of 2,500 hours and the MW rating of the unit NO_x emissions in excess of a block one-hour average of:

(1) 0.20 pound per MMBtu heat input while firing natural gas; and [-]

(2) 0.30 pound per MMBtu heat input while firing fuel oil.

~~[(i) No person shall allow the discharge into the atmosphere from any stationary gas turbine used for peaking service with an annual electric output in MW-hr of less than the product of 2,500 hours and the MW rating of the unit, NO_x emissions in excess of a block one-hour average of 0.30 pound per MMBtu heat input while firing fuel oil.]~~

~~[(h) [(j)] No person shall allow the discharge into the atmosphere from any utility boiler, steam generator, or auxiliary steam boiler subject to the NO_x emission limits specified in subsections (a)-(e) of this section, carbon monoxide (CO) emissions in excess of 400 ppmv, based on a one-hour average for units not equipped with continuous emissions monitoring systems (CEMS) or predictive emissions monitoring systems (PEMS) for CO, or on a rolling 24-hour averaging period for units equipped with CEMS or PEMS for CO.~~

~~[(i) [(k)] No person shall allow the discharge into the atmosphere from any stationary gas turbine with a MW rating greater than or equal to 10 MW, CO emissions in excess of a block one-hour average of 132 ppmv at 15% O₂, dry basis.~~

~~[(j) [(l)] No person shall allow the discharge into the atmosphere from any unit subject to this division [undesignated head], ammonia emissions in excess of 20 ppmv based on a block one-hour averaging period.~~

~~[(m) The NO_x emission limits specified in subsections (a)-(i) of this section shall apply at all times, except as specified in §117.103 of this title (relating to Exemptions) and §117.107 of this title (relating to Alternative System-Wide Emission Specifications). The emission limits specified in subsections (j), (k), and (l) of this section shall apply at all times, except as specified in §117.103 of this title.]~~

~~[(k) [(n)] For purposes of this subchapter, the following shall apply:~~

~~(1) The lower of any permit NO_x emission limit in effect on June 9, 1993 under a permit issued pursuant to Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) and the NO_x emission limits of subsections (a)-(g) [(a)-(i)] of this section shall apply, except that gas-fired boilers operating under a permit issued after March 3, 1982, with an emission limit of 0.12 pound NO_x per MMBtu heat input, shall be limited to that rate for the purposes of this subchapter.~~

~~(2) For any unit placed into service after June 9, 1993 and prior to the final compliance date as specified in §117.510 of this title (relating to Compliance Schedule for Utility Electric Generation) [May 31, 1995] or [the final compliance date as] approved under the provisions of §117.540 of this title (relating to Phased Reasonably Available Control Technology (RACT)), as functionally identical replacement for an existing unit or group of units subject to the provisions of this chapter [and limited to the cumulative maximum rated capacity of the units replaced], the higher of any permit NO_x emission limit under a permit issued after June 9, 1993 pursuant to Chapter 116 of this title and the emission limits of subsections (a)-(g) [(i)] of this section shall apply. Any emission credits resulting from the operation of such replacement units shall be limited to the cumulative maximum rated capacity of the units replaced. The inclusion of such new units is an optional method for complying with the emission limitations of §117.107 of this title. Compliance with this paragraph does not eliminate the requirement for new units to comply with Chapter 116 of this title.~~

§117.107. Alternative System-wide Emission Specifications.

(a) An owner or operator of any gaseous- or coal-fired utility boiler or stationary gas turbine may achieve compliance with the nitrogen oxides (NO_x) emission limits of §117.105 of this title (relating to Emission Specifications) by achieving compliance with a system-wide emission limitation [; except as provided for in subsection (d) of this section]. Any owner or operator who elects to comply with system-wide emission limits shall reduce emissions of NO_x from affected units so that, if all such units were operated at their maximum rated capacity, the system-wide emission rate from all units in the system would not exceed the system-wide emission limit as defined in §117.10 of this title (relating to Definitions).

(1) The following units shall comply with the individual emission specifications of §117.105 of this title and shall not be included in the system-wide emission specification:

(A) gas turbines subject to the emission limits of §117.105(h) or (i) of this title;

(B) auxiliary steam boilers subject to the emission limits of §117.105(a), (c), (d), or (e) of this title.

(2) Coal-fired utility boilers or steam generators shall have a separate system average under this section, limited to those units.

(3) Oil-fired utility boilers or steam generators shall have a separate system average under this section, limited to those units. The emission limit assigned to each oil-fired unit in the system shall not exceed 0.5 pound NO_x per MMBtu based on a rolling 24-hour average.

(b) The owner or operator [; and] shall establish enforceable emission limits for each affected unit in the system calculated in accordance with the maximum rated capacity averaging in this section as follows: [-]

(1) for each gas-fired unit in the system, in [A] pound per million (MM) Btu: [emission limit based]

(A) on a rolling 24-hour averaging period; and

(B) [a pound per MMBtu emission limit based] on a rolling 30-day averaging period [shall apply to each gas-fired unit in the system]; [-]

(2) for each coal-fired unit in the system, in [A] pound per MMBtu [emission limit based] on a rolling 24-hour averaging period [shall apply to each coal-fired unit in the system]; [-]

(3) for stationary gas turbines, [the emission limits shall be assigned] in the units of [given by] the appropriate emission limitation of §117.105 of this title; and [-]

(4) for each fuel oil-fired unit in the system, in pound per MMBtu on a rolling 24-hour averaging period.

~~[(b) An owner or operator of any fuel oil-fired utility boiler may achieve compliance with the NO_x emission limits of §117.105 of this title by achieving compliance with a system-wide emission limitation. Any owner or operator who elects to comply with system-wide emission limits for oil firing shall reduce emissions of NO_x from affected units so that, if all such units were operated at their average activity level for fuel oil firing as defined in §117.10 of this title, the system-wide emission rate from all oil-fired units in the system would not exceed the system-wide emission limit as defined in §117.10 of this title, and shall establish enforceable emission limits for oil firing for each affected unit in the system. A pound per MMBtu emission limit based on a rolling 24-hour averaging period shall apply to each oil-fired unit in the system. The emission limit assigned to each oil-~~

fired unit in the system shall not exceed 0.5 pound NO_x per MMBtu based on a rolling 24-hour average.]

(c) An owner or operator of any gaseous and liquid fuel-fired utility boiler, steam generator, or gas turbine shall [calculate the gaseous and liquid fuel-fired system-wide emission limits of subsections (a) and (b) of this section separately. The owner or operator shall also]:

(1) comply with the assigned maximum allowable emission rates for gas fuel [rate] while firing natural gas only;

(2) comply with the assigned maximum allowable emission rate [rates] for liquid fuel while firing liquid fuel only; and

(3) comply with a limit calculated as the actual heat input weighted sum of the assigned gas- firing, 24-hour average, allowable emission limit and the assigned liquid-firing allowable emission limit while operating on liquid and gaseous fuel concurrently.

[(d) Peaking gas turbines subject to the emission limits of §117.105(h) or (i) of this title and auxiliary steam boilers subject to the emission limits of §117.105(a), (c), (d), or (e) of this title shall comply with those individual emission specifications under this section and shall not be included in the system-wide emission specification. Coal-fired utility boilers or steam generators shall be treated as a separate system, and system averaging for coal-fired utility boilers or steam generators shall be limited to those units under this section.]

(d) [(e)] Solely for purposes of calculating the system-wide emission limit, the allowable mass emission rate for each affected unit shall be calculated from the emission specifications of §117.105 of this title, as follows.

(1) The NO_x emissions rate (in pounds per hour) for each affected utility boiler, steam generator, or auxiliary steam boiler is the product of its average activity level for fuel oil firing or maximum rated capacity for gas firing and its NO_x emission specification of §117.105 of this title.

(2) The NO_x emissions rate (in pounds per hour) for each affected stationary gas turbine is the product of the in-stack NO_x, the turbine manufacturer's rated exhaust flow rate (expressed in pounds per hour at megawatt (MW) rating and International Standards Organization (ISO) flow conditions), and (46/28)(10⁻⁶); Figure: 30 TAC §117.107(d)(2)

§117.109. Initial Control Plan Procedures.

(a) The owner or operator of any major source of nitrogen oxides (NO_x) located in the Beaumont/Port Arthur or Houston/Galveston ozone nonattainment area shall submit, for the approval of the executive director, an initial control plan for installation of [nitrogen oxides] NO_x emissions control equipment and demonstration of anticipated compliance with other applicable requirements of this subchapter.

(1) This section applies only to sources which were major for NO_x emissions before November 15, 1992.

(2) The executive director shall approve the plan if it contains all the information specified in this section.

(3) Revisions to the initial control plan shall be submitted with the final control plan.

(b) (No change.)

§117.111. Initial Demonstration of Compliance.

(a) The owner or operator of all [AH] units which are subject to the emission limitations of this division (relating to Utility Electric

Generation) must be tested as follows. [§117.105 of this title (relating to Emission Specifications) or §117.107 of this title (relating to Alternative System-Wide Emission Specifications) shall be tested].

(1) Test for nitrogen oxides (NO_x), carbon monoxide (CO), and oxygen (O₂) emissions.

(2) Units which inject urea or ammonia into the exhaust stream for NO_x control shall be tested for ammonia emissions.

(3) Testing [Such tests] shall be performed in accordance with the schedules specified in §117.510(4) and (5) of this title (relating to Compliance Schedule For Utility Electric Generation).

(b) The tests required by subsection (a) of this section shall be used for determination of initial compliance with [either] the emission limits of this division [§117.105 of this title (relating to Emission Specifications) or the assigned emission limits of §117.107 of this title (relating to Alternative System-wide Emission Specifications); as applicable]. Test results shall be reported in the units of the applicable emission limits and averaging periods. If compliance testing is based on 40 Code of Federal Regulations, Part 60, Appendix A reference methods, the report must contain the information specified in §117.211(g) of this title (relating to Initial Demonstration of Compliance).

(c) Continuous emissions monitoring systems (CEMS) or predictive emissions monitoring systems (PEMS) required by §117.113 [§117.113(a)] of this title (relating to Continuous Demonstration of Compliance) [or predictive emissions monitoring systems (PEMS) required by §117.113(e) of this title] shall be installed and operational before [prior to conducting initial demonstration of compliance] testing under subsection (a) of this section. Verification of operational status shall, as 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.

(d) Initial compliance with the emission specifications [of §117.105 or §117.107] of this division [title] for units operating with CEMS or PEMS in accordance with §117.113 [§117.113(a)] of this title [or with PEMS in accordance with §117.113(e) of this title] shall be demonstrated after monitor certification testing using the NO_x CEMS or PEMS as follows:

(1)-(2) (No change.)

(3) To comply with the NO_x emission limit in pounds per hour or parts per million by volume at 15% O₂ [oxygen] dry basis, on a block one-hour average, any one-hour period while operating at the maximum rated capacity, or as near thereto as practicable, after CEMS or PEMS certification testing required in §117.113 [§117.113(b)] of this title [or PEMS certification testing required in §117.113(e) of this title (relating to Continuous Demonstration of Compliance)] is used to determine compliance with the NO_x emission limit.

(4) (No change.)

§117.113. Continuous Demonstration of Compliance.

(a) NO_x monitoring. The owner or operator of each [affected] unit subject to the emission specifications of this division (relating to Utility Electric Generation), [as defined in §117.101 of this title (relating to Applicability); except for exempted units listed in §117.103 of this title (relating to Exemptions); peaking units as defined in §1.1 or §1.2 of Appendix E of 40 Code of Federal Regulations (CFR) Part 75; subject to the monitoring requirements of Appendix E; gas turbines monitored in accordance with subsection (f) of this section; and auxiliary boilers as defined in §117.10 of this

title (relating to Definitions); monitored in accordance with subsection (d) of this section;] shall install, calibrate, maintain, and operate a [an in-stack] continuous emissions monitoring system [systems] (CEMS), predictive emissions monitoring system (PEMS), or other system specified in this section to measure nitrogen oxides (NO_x) on an individual basis. [The CEMS shall be installed and operating by the time of compliance with the emission limits specified in §117.105 of this title (relating to Emission Specifications) or §117.107 of this title (relating to Alternative System-Wide Emission Specifications). Each CEMS shall be able to use measured exhaust or fuel flow rate data obtained by a certified flow meter and be capable of measuring the following:]

- (1) NO_x;
- (2) carbon monoxide (CO); and
- (3) oxygen (O₂) or carbon dioxide (CO₂) as a diluent.]

(b) Carbon monoxide (CO) monitoring. The owner or operator shall monitor CO exhaust emissions from each unit subject to the emission specifications of this division using one or more of the following methods:

(1) install, calibrate, maintain, and operate a:

(A) CEMS in accordance with subsection (c) of this section; or

(B) PEMS in accordance with subsection (f) of this section; or

(2) periodically sample CO as follows:

(A) sample CO emissions with a portable analyzer (or 40 CFR 60, Appendix A reference method test apparatus) after manual combustion tuning or burner adjustments conducted for the purpose of minimizing NO_x emissions:

(i) whenever the resulting NO_x emissions measured by CEMS or predicted by PEMS are lower than levels for which CO emissions data was previously gathered; and

(ii) whenever NO_x emissions are sampled with a portable analyzer or 40 CFR 60, Appendix A reference method test apparatus; and

(B) sample CO emissions using the test methods and procedures of 40 CFR 60 in conjunction with the annual relative accuracy test audit of the NO_x and diluent analyzer.

(c) [(b)] CEMS requirements. Any CEMS required by [subsection (a) of] this section shall be installed, calibrated, maintained, and operated in accordance with 40 CFR, Part 75 or 40 CFR, Part 60, as applicable. [The executive director of the Texas Natural Resource Conservation Commission (TNRCC) may approve alternative locations to in-stack monitoring for any affected unit subject to this section.]

(d) [(e)] Acid rain peaking units. The owner or operator of each peaking unit as defined in 40 CFR Part 72.2 [75, Appendix E §1.1 or §1.2], may:

(1) monitor operating parameters for each unit in accordance with 40 CFR Part 75, Appendix E §1.1 or §1.2 and calculate NO_x emission rates based on those procedures; or

(2) use CEMS or PEMS in accordance with [subsection (a) of] this section to monitor NO_x emission rates.

(e) [(d)] Auxiliary boilers. The owner or operator of each auxiliary boiler as defined in §117.10 of this title [(relating to Definitions)] shall:

(1) install, calibrate, maintain, and operate a CEMS in accordance with [subsection (a) of] this section; or

(2) comply with the appropriate (considering boiler maximum rated capacity and annual heat input) industrial boiler monitoring requirements of §117.213 of this title (relating to Continuous Demonstration of Compliance).

(f) [(e)] PEMS requirements. The owner or operator of any PEMS used to meet a pollutant monitoring requirement of this section must comply with the following. [As an alternative to CEMS, the owner or operator of units subject to continuous monitoring requirements under this undesignated head (relating to Utility Electric Generation) may, with the approval of the executive director, elect to install, calibrate, maintain, and operate predictive emissions monitoring systems (PEMS) and totalizing fuel flow meters.] The required PEMS and fuel flow meters shall be used to [measure NO_x, CO, and O₂ (or CO₂) emissions and fuel flow for each affected unit and shall be used to] demonstrate continuous compliance with the emission limitations of §117.105 or §117.107 of this title. [As an alternative to using PEMS to monitor O₂ (or CO₂), subsection (a) of this section or]

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

(2) Monitor diluent, either O₂ or CO₂:

(A) using a CEMS

(i) in accordance with subsection (b) of this section; or

(ii) with a similar alternative method approved by the executive director and the United States Environmental Protection Agency [may be used]; or

(B) using a PEMS.

(3) Any PEMS for units subject to the requirements of 40 CFR 75 shall meet the requirements of [§117.119 of this title (relating to Notification, Recordkeeping, and Reporting Requirements) and] 40 CFR 75 Subpart E, §§75.40-75.48.

(4) Any PEMS for units not subject to the requirements of 40 CFR 75 shall meet the requirements of [§117.119 of this title and] either:

(A) 40 CFR 75, Subpart E, §§75.40-75.48; or

(B) §117.213(f) [§117.213(e)(1)-(3)] of this title.

(g) [(f)] Gas turbine monitoring. The owner or operator of each gas turbine subject to the emission specifications of §117.105 of this title, instead [in lieu] of monitoring emissions in accordance with the monitoring requirements of 40 CFR 75, may [elect to] comply with the following monitoring requirements:

(1) for gas turbines rated less than 30 megawatt (MW) or peaking gas turbines (as defined in §117.10 of this title) which use steam or water injection to comply with the emission specifications of §117.105(g) [§117.105(h) or (i)] of this title:

(A) install, calibrate, maintain and operate a CEMS or PEMS in compliance with [subsection (b) of] this section; or

(B) install, calibrate, maintain, and operate a continuous monitoring system to monitor and record the average hourly

fuel and steam or water consumption. The system shall be accurate to within plus or minus 5.0%. The steam-to-fuel or water-to-fuel ratio monitoring data shall constitute the method for demonstrating continuous compliance with the applicable emission specification of §117.105 of this title.

(2) for gas turbines subject to the emission specifications of §117.105(f) ~~or (g)~~ of this title, install, calibrate, maintain and operate a CEMS or PEMS in compliance with ~~[subsection (b) of]~~ this section.

(h) ~~(g)~~ Totalizing fuel flow meters. The owner or operator ~~[of any stationary gas turbine with an MW rating greater than or equal to 1.0 MW operated more than 850 hours per year]~~ shall install, calibrate, ~~[and] maintain, and operate~~ totalizing fuel flow meters to individually and continuously measure the gas and liquid fuel usage of: ~~[on an individual unit basis.]~~

(1) any unit subject to the emission specifications of this division;

(2) any stationary gas turbine with an MW rating greater than or equal to 1.0 MW operated more than 850 hours per year (hr/yr); and

(3) any unit claimed exempt from the emission specifications of this division using the low annual capacity factor exemption of §117.103(a)(2) of this title.

(i) ~~(h)~~ Run time meters. ~~[The owner or operator of any utility boiler, steam generator, or auxiliary steam boiler using the exemption of §117.103(b)(2) of this title (relating to Exemptions) shall install and maintain totalizing fuel meters for each individual unit, as approved by the executive director, and record the annual fuel input for each unit, based on a rolling monthly average.]~~ The owner or operator of any stationary gas turbine using the exemption of §117.103(a)(3) ~~[§117.103(b)(3)]~~ of this title shall record the operating time with an elapsed run time meter approved by the executive director.

(j) ~~(i)~~ Loss of exemption. The owner or operator of any unit claimed exempt from the emission specifications of this division ~~[utility boiler, steam generator, or auxiliary steam boiler]~~ using the low annual capacity factor exemptions ~~[exemption]~~ of §117.103(a)(2) or (3) ~~[§117.103(b)(2)]~~ of this title, ~~[or any stationary gas turbine using the exemption of §117.103(b)(3) of this title,]~~ shall notify the executive director within seven days if the applicable ~~[Btu/yr or hr/yr]~~ limit ~~[specified in §117.103(b)(2) or §117.103(b)(3) of this title, as appropriate,]~~ is exceeded.

(1) If the ~~[Btu/yr or hr/yr]~~ limit ~~[, as appropriate,]~~ is exceeded, the exemption from the emission specifications of §117.105 of this title shall be 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 ~~[Btu/yr or hr/yr]~~ limit ~~[, as appropriate].~~ The ~~[Included with this compliance]~~ plan ~~[, the owner or operator]~~ shall include ~~[submit]~~ a schedule of increments of progress for the installation of the required control equipment.

(3) ~~The~~ ~~[This]~~ schedule shall be subject to the review and approval of the executive director.

(k) ~~(j)~~ Data used for compliance. After the initial demonstration of compliance required by §117.111 of this title (relating to Initial Demonstration of Compliance)~~], compliance with either §117.105 or §117.107 of this title, as applicable, shall be~~

~~determined by]~~ the methods required in this section shall be used to determine compliance with the emission specifications of this division. Compliance with the emission limitations may also be determined at the discretion of the executive director using any ~~commission~~ ~~[TNRCC]~~ compliance method.

(1) Enforcement of NO_x limits. If compliance with §117.105 of this title is selected, no unit subject to §117.105 of this title shall be operated at an emission rate higher than that allowed by the emission specifications of §117.105 of this title. If compliance with §117.107 of this title is selected, no unit subject to §117.107 of this title shall be operated at an emission rate higher than that approved by the executive director pursuant to §117.115(b) ~~[§117.115(b)(2)]~~ of this title (relating to Final Control Plan Procedures).

~~[(k) Instead of using CEMS or PEMS for CO, the owner or operator may substitute periodic sampling of CO as follows:]~~

~~[(1) sample CO emissions with a portable analyzer (or 40 CFR 60, Appendix A reference method test apparatus) after manual combustion tuning or burner adjustments conducted for the purpose of minimizing NO_x emissions:]~~

~~[(A) whenever the resulting NO_x emissions measured by CEMS or predicted by PEMS are lower than levels for which CO emissions data was previously gathered; and]~~

~~[(B) whenever NO_x emissions are sampled with a portable analyzer or 40 CFR 60, Appendix A reference method test apparatus; and]~~

~~[(2) sample CO emissions using the test methods and procedures of 40 CFR 60 in conjunction with the annual relative accuracy test audit of the NO_x and diluent analyzer.]~~

§117.115. Final Control Plan Procedures.

(a) ~~[For sources complying with §117.105 of this title (relating to Emission Specifications),]~~ The ~~[the]~~ owner or operator of units listed in §117.101 of this title (relating to Applicability) at a major ~~[an affected]~~ source of nitrogen oxides (NO_x) shall submit a final control report to show compliance with the requirements of this division. ~~[§117.105 of this title by the date specified in §117.510(6) of this title (relating to Compliance Schedule For Utility Electric Generation).]~~ The report must ~~[shall]~~ include a list of all ~~[affected]~~ units listed in §117.101 of this title, showing:

(1) the NO_x emission specification resulting from application of §117.105 of this title (relating to Emission Specifications) for each non-exempt unit;

(2) the section under which NO_x compliance is being established for units specified in paragraph (1) of this subsection, either:

(A) §117.105 of this title;

(B) §117.107 of this title (relating to Alternative Plant-wide Emission Specifications);

(C) §117.121 of this title (relating to Alternative Case Specific Specifications); or

(D) §117.570 (relating to Trading);

(3) the method of control of NO_x [nitrogen oxides (NO_x)] emissions for each unit; [and]

(4) the emissions measured by [results of] testing required in §117.111 of this title (relating to Initial Demonstration of Compliance);

(5) the submittal date, and whether sent to the Austin or the regional office (or both), of any compliance stack test report or relative accuracy test audit report required by §117.111 of this title which is not being submitted concurrently with the final compliance report; and

(6) the specific rule citation for any unit with a claimed exemption from the emission specifications of this division.

(b) For sources complying with §117.107 of this title [(relating to Alternative System-wide Emission Specifications)], in addition to the requirements of subsection (a) of this section, the owner or operator [of an affected source shall submit a final control plan to show attainment of the requirements of §117.107 of this title by the date specified in §117.510(6) of this title. The owner or operator] shall:

(1) assign to each affected unit the maximum NO_x emission rate, expressed in units of pound per million (MM) Btu heat input on:

(A) a rolling 24-hour average and rolling 30-day average for gaseous fuel firing, and

(B) a rolling 24-hour average for oil or coal firing[, which are allowed for that unit under the requirements of §117.107 of this title];

(2) submit a list to the executive director for approval of:

(A) the maximum allowable NO_x emission rates identified in paragraph (1) of this subsection; [and maintain a copy of the approved list for verification of continued compliance with the requirements of §117.107 of this title (relating to Alternative System-wide Emission Specifications)]; and

(B) the maximum rated capacity for each unit;

(3) submit calculations used to calculate the system-wide average in accordance with §117.107(e) of this title; and

(4) maintain a copy of the approved list of emission limits for verification of continued compliance with the requirements of §117.107 of this title.

[(3) submit a description of the NO_x control method used to achieve compliance with §117.107 of this title, and the results of testing for each unit in accordance with the requirements of §117.111 of this title. For units complying with a pound per MMBtu emission limit on a rolling 30-day average, this information may be submitted according to the schedule given in §117.510(4) of this title.]

[(4) submit a list summarizing the results of testing for each unit in accordance with the requirements of §117.111 of this title.]

(c) The lists of information required in this section must be submitted electronically and on hard copy using forms provided by the executive director. This requirement does not apply to calculations or other explanatory information.

(d) The report must be submitted by the applicable date specified for final control plans in §117.510 of this title (relating to Compliance Schedule For Utility Electric Generation). The plan must be updated with any emission compliance measurements submitted for units using continuous emissions monitoring system or predictive emissions monitoring system and complying with an emission limit on a rolling 30-day average, according to the applicable schedule given in §117.510 of this title.

§117.117. *Revision of Final Control Plan.*

A revised final control plan may be submitted by the owner or operator, along with any required permit applications. Such a plan shall adhere to the emission limits and the final compliance dates of this division [~~undesignated head~~] (relating to Utility Electric Generation). For sources complying with §117.105 of this title (relating to Emission Specifications), or §117.107 of this title (relating to Alternative System-Wide Emission Specifications), replacement new units may be included in the control plan. The revision of the final control plan shall be subject to the review and approval of the executive director.

§117.119. *Notification, Record keeping, and Reporting Requirements.*

[(a) For units subject to the exemptions allowed under §117.103(a) of this title (relating to Exemptions), hourly records shall be made of start-up and/or shutdown events and maintained for a period of at least two years. Records shall be available for inspection by the Texas Natural Resource Conservation Commission (TNRCC), the United States Environmental Protection Agency (EPA), and any local air pollution control agency having jurisdiction upon request. These records shall include, but are not limited to: type of fuel burned; quantity of each type fuel burned; gross and net energy production in megawatt-hours (MW-hr); and the date, time, and duration of the event.]

(a) [(b)] Notification. The owner or operator of a unit subject to the emission specifications of this division [provisions of §117.105 of this title] (relating to Utility Electric Generation) [Emission Specifications] or §117.107 of this title (relating to Alternative System-wide Emission Specifications)] shall submit notification to the executive director as follows:

(1) verbal notification of the date of any initial demonstration of compliance testing conducted under §117.111 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 systems (CEMS) or predictive emissions monitoring systems (PEMS) performance evaluation conducted under §117.113 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.

(b) [(e)] Reporting of test results. The owner or operator of an affected unit shall furnish the executive director and any local air pollution control agency having jurisdiction a copy of any initial demonstration of compliance testing conducted under §117.111 of this title or any CEMS or PEMS performance evaluation conducted under §117.113 of this title:—

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

(2) not later than [Such results shall be submitted in accordance with] the appropriate compliance schedules specified in §117.510 [§117.510(3) and (4)] of this title (relating to Compliance Schedule for Utility Electric Generation).

(c) [(d)] Semiannual reports. The owner or operator of a unit required to install a CEMS, PEMS, or steam-to-fuel or water-to-fuel ratio monitoring system under §117.113 of this title shall report in writing to the executive director on a semiannual [quarterly] basis any exceedance of the applicable emission limitations in [§117.105 or §117.107 of] this division [title] and the monitoring system performance. All reports shall be postmarked or received by the 30th

day following the end of each calendar semiannual period [quarter]. Written reports shall include the following information:

(1) the magnitude of excess emissions computed in accordance with 40 Code of Federal Regulations (CFR), Part 60, §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. For gas turbines using steam-to-fuel or water-to-fuel ratio monitoring to demonstrate compliance in accordance with §117.113 [~~§117.113(E)(1)(B)~~] of this title, excess emissions are computed as each one-hour period during which the hourly steam-to-fuel or water-to-fuel ratio is less than the ratio determined to result in compliance during the initial demonstration of compliance test required by §117.111 of this title.

(2) specific identification of each period of excess emissions that occurs during start-ups, 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 during which 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 shall be stated in the report;

(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 steam-to-fuel or water-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 [TNRCC] "Guidance for Preparation of Summary, Excess Emission, and Continuous Monitoring System Reports") shall be submitted, unless otherwise requested by the executive director [of the TNRCC]. 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 or steam-to-fuel or water-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 shall both be submitted.

(d) [~~(e)~~] Recordkeeping. The owner or operator of a unit subject to the requirements of this division shall maintain records of the data specified in this subsection. [~~For units subject to the provisions of §117.105 or §117.107 of this title, records of hours of operation and other operating records shall be made and maintained for a period of at least two years.~~] Records shall be kept for a period of at least five years and made available for inspection by the executive director [TNRCC], EPA, or local air pollution control agencies having jurisdiction upon request. Operating records for each unit shall be recorded and maintained at a frequency equal to the applicable emission specification averaging period, or [monthly] for units claimed exempt from the emission specifications based on low annual capacity factor [annual heat input, or hours of operation per calendar year], monthly. Records [and] shall include:

- (1) emission rates in units of the applicable standards;
 - (2) gross energy production in MW-hr (not applicable to auxiliary boilers);
 - (3) quantity and type of fuel burned;
 - (4) the injection rate of reactant chemicals (if applicable);
- and

(5) CEMS, PEMS, operating parameter monitoring in accordance with 40 CFR Part 75, Appendix E, or steam-to-fuel or water-to-fuel ratio monitoring system data, as applicable, pursuant to §117.113 of this title, including [~~The records shall include~~]:

(A) the date, time, and duration of any malfunction in the operation of the monitoring system, except for zero and span checks, if applicable, and a description of system repairs and adjustments undertaken during each period;

(B) the results of initial certification testing, evaluations, calibrations, checks, adjustments, and maintenance of CEMS, PEMS, or operating parameter [steam-to-fuel or water-to-fuel ratio] monitoring systems; and

(C) actual emissions or operating parameter measurements, as applicable;

(6) the results of performance testing, including initial demonstration of compliance testing conducted in accordance with §117.111 of this title; and

(7) records of hours of operation.

§117.121. *Alternative Case Specific Specifications.*

(a) Where a person can demonstrate that an affected unit cannot attain the applicable requirements of §117.105 of this title (relating to Emission Specifications), [as applicable,] the executive director [~~on a case-by-case basis after considering the technological and economic circumstances of the individual unit,~~] may approve emission specifications different from §117.105 of this title for that unit. The executive director:

(1) shall consider on a case-by-case basis the technological and economic circumstances of the individual unit;

(2) must determine [~~based on the determination~~] that such specifications are the result of the lowest emission limitation the unit is capable of meeting after the application of reasonably available control technology; and [-]

(3) in [~~in~~] determining whether to approve alternative emission specifications, [~~the executive director~~] may take into consideration the ability of the plant at which the unit is located to meet emission specifications through system-wide averaging at maximum capacity.

(b) Any person affected by the [decision of the] executive [director] director's decision to deny an alternative case specific emission specification may file a motion for reconsideration [appeal to the commission by filing written notice of appeal with the executive director within 30 days after the decision. Such appeal is to be taken by written notification to the executive director]. The requirements of §50.39 [Section 403.74] of this title (relating to Motion for Reconsideration [Request for Action by the Commission]) apply [~~should be consulted for the method of requesting commission action on the appeal~~]. However, only a person affected may file a motion for reconsideration. Executive director approval does not necessarily constitute satisfaction of all federal requirements nor eliminate the need for approval by the United States Environmental Protection Agency in cases where specified criteria for determining equivalency have not been clearly identified in applicable sections of this division [~~undesignated head~~] (relating to Utility Electric Generation).

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

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Margaret Hoffman
Director, Environmental Law Division
Texas Natural Resource Conservation Commission
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◆ ◆ ◆
Division 2. Commercial, Institutional, and Industrial Sources

30 TAC §§117.201, 117.203, 117.205, 117.207-117.209, 117.211, 117.213, 117.215, 117.217, 117.219, 117.221, 117.223

STATUTORY AUTHORITY The amendments are proposed under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.012, which requires the commission to develop a general, comprehensive plan for the proper control of the state's air; §382.016, which authorizes the commission to prescribe requirements for owners or operators of sources to make and maintain records of emissions measurements; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; and §382.051(d), which authorizes the commission to adopt rules as necessary to comply with changes in federal law or regulations applicable to permits under Chapter 382.

The proposed amendments implement the Health and Safety Code, §382.012.

§117.201. Applicability.

The provisions of this division [undesignated head] (relating to [concerning] Commercial, Institutional, and Industrial Sources) shall apply to the following units located at any major stationary source of nitrogen oxides located within the [Houston/Galveston or] Beaumont/Port Arthur, Dallas/Fort Worth, or Houston/Galveston ozone nonattainment areas:

- (1)-(2) (No change.)
- (3) stationary internal combustion engines which are:
 - (A) (No change.)
 - (B) located in the Beaumont/Port Arthur or Dallas/Fort Worth ozone nonattainment area with a horsepower rating of 300 hp or greater.

§117.203. Exemptions.

~~{(a) The provisions of §117.205 of this title (relating to Emission Specifications) or §117.207 of this title (relating to Alternative Plant-wide Emission Specifications) shall not apply during periods of major upset or maintenance under the requirements of §101.6 of this title (relating to Notification Requirements for Major Upset), §101.7 of this title (relating to Notification Requirements for Maintenance), and §101.11 of this title (relating to Exemptions from Rules and Regulations).}~~

~~{(b)}~~ Units exempted from the provisions of this division [undesignated head] (relating to Commercial, Institutional, and Industrial Sources), except for §117.209(c)(1) of this title (relating to Initial Control Plan Procedures) and §117.213(a) and ~~(i) [§117.213(d)(2) and (g)]~~ of this title (relating to Continuous Demonstration of Compliance), include the following:

- (1) any new units placed into service after November 15, 1992, except for new units which were placed into service as

functionally identical replacement for existing units subject to the provisions of this division [undesignated head] as of June 9, 1993. Any emission credits resulting from the operation of such replacement units shall be limited to the cumulative maximum rated capacity of the units replaced;

(2) any commercial, institutional, or industrial boiler or process heater with a maximum rated capacity of less than 40 million Btu per hour;

(3) any electric utility power generating boiler;

(4) flares, incinerators, fume abaters, pulping liquor recovery furnaces, sulfur recovery units, sulfuric acid regeneration units, and sulfur plant reaction boilers;

(5) dryers, kilns, or ovens used for drying, baking, cooking, calcining, and vitrifying;

(6) stationary gas turbines and engines, which are:

(A) used in research and testing, or used for purposes of performance verification and testing, or used solely to power other engines or gas turbines during start-ups, or operated exclusively for firefighting and/or flood control, or used in response to and during the existence of any officially declared disaster or state of emergency, or used directly and exclusively by the owner or operator for agricultural operations necessary for the growing of crops or raising of fowl or animals, or used as chemical processing gas turbines; or

(B) demonstrated to operate less than 850 hours per year, based on a rolling 12-month average.

(7) stationary gas turbines with a megawatt (MW) rating of less than 1.0 MW; and

(8) stationary internal combustion engines which are:

(A) located in the Houston/Galveston ozone nonattainment area with a horsepower (hp) rating of less than 150 hp; or

(B) located in the Beaumont/Port Arthur or Dallas/Fort Worth ozone nonattainment area with a hp rating of less than 300 hp.

§117.205. Emission Specifications.

(a) No person shall allow the discharge of air contaminants into the atmosphere to exceed the emission limits of this section, except as provided in §117.207 of this title (relating to Alternative Plant- Wide Emission Specifications), or §117.223 of this title (relating to Source Cap).

(1)-(2) (No change.)

(3) For any unit placed into service after June 9, 1993 and before the final compliance date as specified in §117.520 of this title (relating to Compliance Schedule for Commercial, Institutional, and Industrial Combustion Sources [prior to May 31, 1995]) or the final compliance date as approved under the provisions of §117.540 of this title (relating to Phased Reasonably Available Control Technology (RACT)), as functionally identical replacement for an existing unit or group of units subject to the provisions of this chapter, the higher of any permit NO_x emission limit under a permit issued after June 9, 1993 pursuant to Chapter 116 of this title and the emission limits of subsections (b)-(d) of this section shall apply. Any emission credits resulting from the operation of such replacement units shall be limited to the cumulative maximum rated capacity of the units replaced. The inclusion of such new units is an optional method for complying with the emission limitations of §117.207 or §117.223 of this title. Compliance with this paragraph does not eliminate the requirement for new units to comply with Chapter 116 of this title.

(b) For boilers and process heaters which operate with continuous emission monitors (CEMS) or predictive emissions monitors (PEMS) in accordance with §117.213 [~~§117.213(b)~~] of this title (relating to Continuous Demonstration of Compliance), [~~or with predictive emissions monitors in accordance with §117.213(e) of this title.~~] the emission limits shall apply as the mass of nitrogen oxides (NO_x) emitted per unit of energy input (pound NO_x per MMBtu [~~million (mm) Btu~~]), on a rolling 30-day average period, or as the mass of NO_x emitted per hour (pounds per hour), on a block one-hour average. For boilers and process heaters which do not operate with CEMS or PEMS [~~continuous or predictive emission monitors~~], the emission limits shall apply as the mass of NO_x emitted per hour (pounds NO_x per hour), on a block one-hour average. The mass of NO_x emitted per hour shall be calculated as the product of the boiler's or process heater's maximum rated capacity and its applicable limit in pound NO_x per MMBtu. For each [~~commercial, institutional, or industrial~~] boiler and process heater with a maximum rated capacity greater than or equal to 100.0 MMBtu/hr of heat input, the applicable emission limit is as follows:

(1)-(5) (No change.)

(6) for any gas-fired boiler or process heater firing gaseous fuel which contains more than 50% hydrogen by volume, over an eight-hour period, in which the fuel gas composition is sampled and analyzed every three hours, a multiplier of 1.25 times the appropriate emission limit in this subsection may be used for that eight-hour period. The total hydrogen volume in all gaseous fuel streams will be divided by the total gaseous fuel flow volume to determine the volume percent of hydrogen in the fuel supply. The multiplier may not be used to increase limits set by permit.

(c) (No change.)

(d) No person shall allow the discharge into the atmosphere from any gas-fired, rich-burn, stationary, reciprocating internal combustion engine, emissions in excess of a block one-hour average of 2.0 grams NO_x per horsepower hour (g NO_x/hp-hr) and 3.0 g CO/hp-hr for engines which are:

(1) (No change.)

(2) rated 300 hp or greater and located in the Beaumont/Port Arthur or Dallas/Fort Worth ozone nonattainment area.

(e) No person shall allow the discharge into the atmosphere from any boiler or process heater subject to NO_x emission specifications in subsection (a) or (b) of this section, CO emissions in excess of the following limitations:

(1)-(2) (No change.)

(3) for units equipped with CEMS [~~continuous emissions monitoring systems (CEMS)~~] or PEMS [~~predictive emissions monitoring systems (PEMS)~~] for CO, the limits of paragraphs (1) and (2) of this subsection shall apply on a rolling 24-hour averaging period. For units not equipped with CEMS or PEMS for CO, the limits shall apply on a one-hour average.

(f) No person shall allow the discharge into the atmosphere from any unit subject to a NO_x emission limit in this division [~~undesignated head~~] (relating to Commercial, Institutional, and Industrial Sources), ammonia emissions in excess of 20 ppmv based on a block one-hour averaging period.

(g) (No change.)

~~[(h) The NO_x emission limits specified in subsections (a)-(d) of this section shall apply at all times except as specified in §117.203 of this title (relating to Exemptions); §117.207 of this title;~~

~~and §117.223 of this title. The CO emission limits specified in subsections (c), (d), and (e) of this section and the ammonia emission limits specified in subsection (f) of this section shall apply at all times, except as specified in §117.203 of this title.]~~

§117.207. *Alternative Plant-wide Emission Specifications.*

(a) An owner or operator may achieve compliance with the nitrogen oxides (NO_x) emission limits of §117.205 of this title (relating to Emission Specifications) by achieving equivalent NO_x [~~nitrogen oxides (NO_x)~~] emission reductions obtained by compliance with a plant-wide emission limitation. Any owner or operator who elects to comply with a plant-wide emission limit shall reduce emissions of NO_x from affected units so that if all such units were operated at their maximum rated capacity, the plant-wide emission rate of NO_x from these units would not exceed the plant-wide emission limit as defined in §117.10 of this title (relating to Definitions). ~~[and]~~

(b) The owner or operator shall establish an enforceable (NO_x) emission limit for each affected unit at the source as follows.

(1) For boilers and process heaters which operate with continuous emission monitors (CEMS) or predictive emission monitors (PEMS) in accordance with §117.213 [~~§117.213(b)~~] of this title (relating to Continuous Demonstration of Compliance), [~~or with predictive emission monitors in accordance with §117.213(e) of this title.~~] the emission limits shall apply as:

(A) the mass of NO_x emitted per unit of energy input (pound NO_x per million (MM) Btu), on a rolling 30-day average period;[~~]~~ or

(B) as the mass of NO_x emitted per hour (pounds per hour), on a block one-hour average.

(2) For boilers and process heaters which do not operate with CEMS or PEMS [~~continuous or predictive emission monitors~~], the emission limits shall apply as the mass of NO_x emitted per hour (pounds NO_x per hour), on a block one-hour average.

(3) For stationary gas turbines, the emission limits shall apply as the NO_x concentration in parts per million by volume (ppmv) at 15% oxygen (O₂), dry basis on a block one-hour average.

(4) For stationary internal combustion engines, the emission limits shall apply in units of grams NO_x per horsepower-hour (g NO_x/hp-hr) on a block one-hour average.

~~[(b) Units exempted from emission specifications in accordance with §117.205(g) of this title are also exempt under this section and shall not be included in the plant-wide emission limit, except as provided in subsection (f) of this section.]~~

(c)-(e) (No change.)

(f) Units exempted from emission specifications in accordance with §117.205(g) of this title are also exempt under this section and shall not be included in the plant-wide emission limit, except as follows. The owner or operator of exempted units as defined in §117.205(g) of this title may elect to include one or more of an entire equipment class of exempted units into the alternative plant-wide emission specifications [as defined in this section].

(1) The equipment classes must be included as an entire population of units at the major source.

(2) Low annual capacity factor boilers, process heaters, gas turbines, or engines as defined in §117.10 of this title are not to be considered as part of that class of equipment.

(3) The ammonia and carbon monoxide emission specifications of §117.205 of this title apply to the election units.

(4) The individual NO_x emission limit that is to be used in calculating the alternative plant-wide emission specifications is the lower of any applicable permit emission specification determined in accordance with §117.205(a) of this title and the specification of paragraph (5) of this subsection.

(5) The equipment classes which may be included in the alternative plant-wide emission specifications and the NO_x emission rates that are to be used in calculating the alternative plant-wide emission specifications are listed in [as an entire population of units at the major source include] the following table, §117.207(f) OPT-IN UNITS:

Figure: 30 TAC §117.207(f)(5)

[fluid catalytic cracking unit carbon monoxide (CO) boilers; lean-burn, gas-fired, stationary, reciprocating internal combustion engines rated 150 hp or greater; boilers, steam generators, or process heaters with a maximum rated capacity of greater than or equal to 40 MMBtu per hour (MMBtu/hr) and less than 100 MMBtu/hr; stationary gas turbines with a megawatt (MW) rating of greater than or equal to 1.0 MW and less than 10.0 MW; and boilers and industrial furnaces which are regulated as existing facilities by the United States Environmental Protection Agency (EPA) at 40 Code of Federal Regulations (CFR) Part 266, Subpart H. Low annual capacity factor boilers, process heaters, gas turbines, or engines as defined in §117.10 of this title are not to be considered as part of that class of equipment. The individual emission limits that are to be used in calculating the alternative plant-wide emission specifications are the lower of the emission specifications determined in accordance with §117.205(a) of this title and the following, as applicable:]

{(1) fluid catalytic cracking unit CO boilers, 50% NO_x reduction across the inlet of the CO boiler to the outlet of the CO boiler, with the outlet concentration in ppmv converted into a pound (lb) NO_x/MMBtu of heat input;}

{(2) lean-burn, gas-fired, stationary, reciprocating internal combustion engines rated 150 hp or greater, 5.0 grams NO_x hp-hr (g NO_x/hp-hr) under all operating conditions;}

{(3) boilers, steam generators, or process heaters with a maximum rated capacity of greater than or equal to 40 MMBtu/hr and less than 100 MMBtu/hr, the emission specifications in §117.205(a) of this title for the applicable type of unit; and}

{(4) stationary gas turbines with a MW rating of greater than or equal to 1.0 MW and less than 10.0 MW, 42 ppmv NO_x at 15% O₂ dry basis.}

{(5) boilers and industrial furnaces which are regulated as existing facilities by EPA at 40 CFR Part 266, Subpart H, the appropriate emission limitation in §117.205(b) of this title.}

(g) Solely for the purposes of calculating the plant-wide emission limit, the allowable NO_x [mass] emission rate (in pounds per hour) for each affected unit shall be calculated from the emission specifications of §117.205 of this title, as follows.

(1) For [The NO_x emission rate (in pounds per hour) for] each affected boiler and process heater, the rate is the product of its maximum rated capacity and its NO_x emission specification of §117.205 of this title [(relating to Emission Specifications)].

(2) For [The NO_x emission rate (in pounds per hour) for] each affected stationary internal combustion engine, the rate is the product of the applicable NO_x emission specification of §117.205 of this title [(relating to Emission Specifications)] (expressed in g/hp-hr) and the engine manufacturer's rated heat input (expressed in MMBtu/hr) at the engine's hp rating; divided by the product of the engine

manufacturer's rated heat rate (expressed in Btu/hp-hr) at the engine's hp rating and 454(10⁶).

(3) For [The NO_x emission rate (in pounds per hour) for] each affected stationary gas turbine, the rate is the product of the in-stack NO_x, the turbine manufacturer's rated exhaust flow rate (expressed in pounds per hour at MW rating and International Standards Organization (ISO) flow conditions) and (46/28)(10⁶); Figure: 30 TAC §117.207(g)(3)

(4) Each [The NO_x emission rate (in pounds per hour) for each] affected gas-fired boiler and process heater firing gaseous fuel which contains more than 50% hydrogen (H₂) by volume, over an annual basis, [in which the fuel gas composition is sampled and analyzed every three hours,] may be adjusted with [use] a multiplier of 1.25 times the product of its maximum rated capacity and its NO_x emission specification of §117.205 of this title.

(A) Double application of the H₂ content multiplier using this paragraph and §117.205(b)(6) of this title is not allowed.

(B) The multiplier does not apply to a unit if it would increase a limit set by permit.

(C) The fuel gas composition must be sampled and analyzed every three hours.

(h) The owner or operator of any gas-fired boiler or process heater firing gaseous fuel which contains more than 50% H₂ by volume, over an eight-hour period, in which the fuel gas composition is sampled and analyzed every three hours, may use a multiplier of 1.25 times the emission limit assigned to the unit in this section for that eight-hour period, not applicable to units under subsection (g)(4) of this section or to increase limits set by permit. The total H₂ volume in all gaseous fuel streams will be divided by the total gaseous fuel flow volume to determine the volume percent of H₂ in the fuel supply.

§117.208. Operating Requirements.

(a) [Except during major upset or maintenance as referenced in §101.6 of this title (relating to Notification Requirements for Major Upset), §101.7 of this title (relating to Notification Requirements for Maintenance), and §101.11 of this title (relating to Exemptions from Rules and Regulations), the] The owner or operator shall operate any unit subject to the emission limitations of §117.205 of this title (relating to Emission Specifications) in compliance with those limitations.

(b)-(d) (No change.)

§117.209. Initial Control Plan Procedures.

(a) The owner or operator of any major source of nitrogen oxides (NO_x) located in the Beaumont/Port Arthur or Houston/Galveston ozone nonattainment area shall submit, for the approval of the executive director, an initial control plan for installation of NO_x emissions control equipment (if required in order to comply with the emission specifications of this subchapter) and demonstration of anticipated compliance with the applicable requirements of this subchapter.

(1) This section applies only to sources which were major for NO_x emissions before November 15, 1992.

(2) The executive director shall approve the plan if it contains all the information specified in this section.

(3) Revisions to the initial control plan shall be submitted with the final control plan.

(b) The owner or operator shall provide results of emissions testing using portable or reference method analyzers or, as available,

initial demonstration of compliance testing conducted in accordance with §117.211(e) or (f) of this title (relating to Initial Demonstration of Compliance) for NO_x, carbon monoxide (CO), and oxygen emissions while firing gaseous fuel (and as applicable, hydrogen (H₂) fuel for units which may fire more than 50% H₂ by volume) and liquid and/or solid fuel at the maximum rated capacity or as near thereto as practicable, for the units listed in this subsection. Previous testing documentation for any claimed test waiver as allowed by §117.211(d) of this title shall be submitted with the initial control plan. Any units which were not operated between June 9, 1993 and April 1, 1994 and do not have earlier representative emission test results available shall be tested and the results submitted to the executive director [Texas Natural Resource Conservation Commission (TNRCC)], with certification of the equipment's shutdown period, within 90 days after the date such equipment is returned to operation. Test results are required for the following units:

(1)-(6) (No change.)

(c) The initial control plan shall be submitted in accordance with the schedule specified in §117.520 [~~§117.520(4)~~] of this title (relating to Compliance Schedule For Commercial, Institutional, and Industrial Combustion Sources) and shall contain the following:

(1)-(7) (No change.)

(8) the basis for calculation of the rate of NO_x emissions for each unit to demonstrate that each unit will achieve the NO_x emission rates specified in this division [§117.205, §117.207, or §117.223 of this title]. For fluid catalytic cracking unit CO boilers, the basis for calculation of the pound NO_x per million Btu (lb NO_x/MMBtu) rate for each unit shall include the following:

(A)-(C) (No change.)

(9) for units required to install totalizing fuel flow meters in accordance with §117.213(a) [~~§117.213(a)-(e)~~] of this title (relating to Continuous Demonstration of Compliance), indication of whether the devices are currently in operation, and if so, whether they have been installed as a result of the requirements of this chapter;

(10)-(11) (No change.)

§117.211. Initial Demonstration of Compliance.

(a) The owner or operator of all [AH] units which are subject to the emission limitations of this division (relating to Commercial, Institutional, and Industrial Sources) must test the units as follows [§117.205 of this title (relating to Emission Specifications); §117.207 of this title (relating to Alternative Plant-Wide Emission Specifications); or §117.223 of this title (relating to Source Cap); and all units belonging to equipment classes which are elected to be included in the alternative plant-wide emission specifications as defined in §117.207(f) of this title, or in the source cap in as defined in §117.223(b)(4) of this title, shall be tested].

(1) Test for nitrogen oxides (NO_x), carbon monoxide (CO), and oxygen (O₂) emissions while firing gaseous fuel or, [(and] as applicable[;];

(A) hydrogen (H₂) fuel for units which may fire more than 50% H₂ by volume; [;] and

(B) liquid and solid fuel[;].

(2) Units which inject urea or ammonia into the exhaust stream for NO_x control shall be tested for ammonia emissions.

(3) Test all units belonging to equipment classes which are elected to be included in;

(A) the alternative plant-wide emission specifications as defined in §117.207(f) of this title (relating to Alternative Plant-Wide Emission Specifications); or

(B) the source cap as defined in §117.223(b)(4) of this title (relating to Source Cap).

(4) Initial demonstration of compliance testing [of these units] shall be performed in accordance with the schedule specified in §117.520 of this title (relating to Compliance Schedule For Commercial, Institutional, and Industrial Combustion Sources).

(b) The initial demonstration of compliance tests required by subsection (a) of this section shall use the test methods referenced in subsection (e) or (f) of this section and shall be used for determination of initial compliance with [either] the emission limits of this division [§117.205 of this title, the assigned emission limits of §117.207 of this title, or §117.223 of this title, as applicable]. Test results shall be reported in the units of the applicable emission limits and averaging periods.

(c) Any continuous emissions monitoring system (CEMS) or any predictive emissions monitoring system (PEMS) required by §117.213 [~~§117.213(b)~~] of this title (relating to Continuous Demonstration of Compliance) [~~or any predictive emissions monitoring system (PEMS) approved for use in lieu of CEMS in accordance with §117.213(e) of this title]~~ shall be installed and operational before [prior to] conducting [initial demonstration of compliance] testing under subsection (a) of this section. Verification of operational status shall, as a minimum, include completion of the initial relative accuracy test audit and the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device or system.

(d) Testing conducted more than one year before the final compliance [prior to the effective] date of this rule may be used to demonstrate compliance with the standards specified in [§117.205, §117.207, or §117.223 of] this division [title], or to satisfy the testing requirements of §117.209(b) of this title (relating to Initial Control Plan Procedures), if the owner or operator of an affected facility demonstrates to the executive director that the prior [demonstration of] compliance testing at least meets the requirements of subsections (a), (b), (c), (e), [and] (f), and (g) of this section. The executive director reserves the right to request [demonstration of] compliance testing or CEMS or PEMS performance evaluation at any time.

(e) Compliance with the emission specifications [of §117.205, §117.207, or §117.223] of this division [title] for units operating without CEMS or PEMS shall be demonstrated while operating at the maximum rated capacity, or as near thereto as practicable. Compliance shall be determined by the average of three one-hour emission test runs, using the following test methods:

(1)-(6) (No change.)

(f) Initial compliance with the emission specifications [of §117.205 or §117.207] of this division [title] for units operating with CEMS [in accordance with §117.213(b) of this title,] or PEMS in accordance with §117.213 [~~§117.213(e)~~] of this title, shall be demonstrated after monitor certification testing using the CEMS or PEMS as follows.

(1) (No change.)

(2) For units [boilers, process heaters, and gas turbines] complying with a NO_x emission limit [in pounds per hour or parts per million by volume at 15% oxygen, dry basis,] on a block one-hour average, any one-hour period while operating at the maximum rated capacity, or as near thereto as practicable [; after CEMS certification

testing required in §117.213(b) of this title or PEMS certification testing required in §117.213(c) of this title] is used to determine compliance with the NO_x emission limit.

(3) For units complying with a CO emission limit, on a rolling 24-hour average, any 24-hour period [after CEMS certification testing required in §117.213(b) of this title or PEMS certification testing required in §117.213(c) of this title] is used to determine compliance with the CO emission limit.

(4) For units complying with §117.223 of this title (relating to Source Cap), a rolling 30-day average of total daily pounds of NO_x emissions from the units are monitored (or calculated in accordance with §117.223(c) of this title) for 30 successive source operating days and the 30-day average emission rate is used to determine compliance with the NO_x emission limit. The 30-day average emission rate is calculated as the average of all daily emissions data recorded by the monitoring and recording system during the 30-day test period. There must be no exceedances of the maximum daily cap during the 30-day test period.

(g) Compliance stack test reports must include the following minimum contents.

(1) Introduction. Provide background information pertinent to the test, including:

(A) company name, address, and name of company official responsible for submitting report;

(B) name and address of testing organization;

(C) names of persons present, dates and location of test;

(D) schematic drawings of the unit being tested, showing emission points, sampling sites, and stack cross section with the sampling points labeled and dimensions indicated;

(E) description of the process being sampled; and

(F) facility identification number (FIN) used to identify the unit in the final control plan.

(2) Summary. Provide summary information, including:

(A) a summary of emission rates found, reported in the units of the applicable emission limits and averaging periods, and compared with the applicable emission limit;

(B) the maximum rated capacity, normal maximum capacity, and actual operating level of the unit during the test (in MMBtu/hr, hp, or MW, as applicable), and description of the method used to determine such operating level;

(C) the operating parameters of any pollution control equipment during the test, (for example, percent flue gas recirculation, ammonia flow rate, etc); and

(D) documentation that no changes to the unit have occurred since the compliance test was conducted that could result in a significant change in NO_x emissions.

(3) Procedure. Describe the procedures used and operation of the sampling train and process during the test, including:

(A) a schematic drawing of the sampling devices used with each component designated and explained in a legend;

(B) a brief description of the method used to operate the sampling train and procedure used to recover samples; and

(C) deviation from reference methods, if any.

(4) Analytical technique. Provide a brief description of all analytical techniques used to determine the emissions from the source.

(5) Data and calculations. Include all data and calculations, of:

(A) field data collected on raw data sheets;

(B) log of process operating levels, including fuel data;

(C) laboratory data, including blanks, tare weights, and results of analysis; and

(D) emission calculations.

(6) Chain of custody. Include a listing of the chain of custody of the emission test samples.

(7) Appendix. Provide:

(A) calibration work sheets for sampling equipment;

(B) collection of process logs of process parameters;

(C) brief resume/qualifications of test personnel; and

(D) description of applicable continuous monitoring system, as applicable.

(8) Monitor certification reports. Monitor certification reports must contain:

(A) information which demonstrates compliance with the certification requirements of §117.213(d) or (f) of this title for CEMS or PEMS, as applicable; and

(B) the relative accuracy test audit formation specified in 40 CFR 60, Appendix B, Performance Specification 2, Section 9. §117.213. *Continuous Demonstration of Compliance.*

(a) Totalizing fuel flow meters. The owner or operator of units listed in this subsection [and subject to the provisions of this undesignated head (relating to Commercial, Institutional, and Industrial Sources)] shall install, calibrate, maintain, and operate [an oxygen (O₂) monitor to measure exhaust O₂ concentration and] a totalizing fuel flow meter to individually and continuously measure the gas and liquid fuel usage. A computer which collects, sums, and stores electronic data from continuous fuel flow meters is an acceptable totalizer. The units are: [(for natural gas, refinery or process fuel gas, and fuel oil streams): The O₂ monitors and totalizing fuel flow meters shall be installed and operating by the time of compliance with the emission limits specified in §117.205 of this title (relating to Emission Specifications) or §117.207 of this title (relating to Alternative Plant-wide Emission Specifications) for the following units:]

(1) the following units, if individually rated more than 40 million Btu per hour (MMBtu/hr):

(A) boilers [each commercial, institutional, and industrial boiler; with a rated heat input greater than or equal to 100 million Btu per hour (MMBtu/hr) and less than 250 MMBtu/hr and an annual heat input greater than 2.2(10¹³) Btu per year (Btu/yr)]; [and]

(B) [(2)] [each] process heaters [heater with a rated heat input greater than or equal to 100 MMBtu/hr and less than 200 MMBtu/hr and an annual heat input greater than 2.2(10¹³) Btu/yr.];

(C) boilers and industrial furnaces regulated as existing facilities by the EPA at 40 Code of Federal Regulations (CFR) Part 266, Subpart H; and

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

(2) stationary, reciprocating internal combustion engines operated 850 or more hours per year located in the:

(A) Houston/Galveston ozone nonattainment area, rated 150 horsepower (hp) or greater; or

(B) Beaumont/Port Arthur or Dallas/Fort Worth ozone nonattainment area, rated 300 hp or greater;

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

(4) supplemental fuel fed to fluid catalytic cracking unit boilers.

(b) Oxygen monitors. The owner or operator shall install, calibrate, maintain, and operate an oxygen (O₂) monitor to measure exhaust O₂ concentration on the following units operated with an annual heat input greater than 2.2(10¹¹) Btu per year (Btu/yr):

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

(2) process heaters with a rated heat input:

(A) greater than or equal to 100 MMBtu/hr and less than 200 MMBtu/hr; and

(B) greater than or equal to 200 MMBtu/hr, except as provided in subsection (f) of this section.

(c) ~~(4)~~ Nitrogen oxides (NO_x) monitors.

(1) The owner or operator of units listed in this paragraph [subsection and subject to the provisions of this undesignated head] shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) or predictive emissions monitoring system (PEMS) to monitor exhaust NO_x. The units are: [nitrogen oxides NO_x monitor, a carbon monoxide (CO) monitor, an O₂ or carbon dioxide (CO₂) diluent monitor, and a totalizing fuel flow meter (for natural gas, refinery or process fuel gas, and fuel oil streams). The required continuous emissions monitoring systems (CEMS) and fuel flow meters will be used to measure NO_x, CO, and O₂ (or CO₂) emissions and fuel flow for each affected unit. One CEMS may be used to monitor up to three units. Any CEMS shall meet all the requirements of 40 Code of Federal Regulations (CFR), Part 60, §60.13; 40 CFR 60, Appendix B, Performance Specifications 2, 3, and 4; and quality assurance procedures of 40 CFR 60, Appendix F, except that a cylinder gas audit may be performed in lieu of the annual relative accuracy test audit required in Section 5.1.1. The CEMS shall be subject to the approval of the executive director of the Texas Natural Resource Conservation Commission (TNRCC) under any permit issued pursuant to Title V of the 1990 Federal Clean Air Act Amendments.]

(1) The CEMS shall be installed by the time of compliance with the emission limits specified in §117.205 or §117.207 of this title for the following units:]

(A) boilers [each commercial, institutional, and industrial boiler] with a rated heat input greater than or equal to 250 MMBtu/hr and an annual heat input greater than 2.2(10¹¹) Btu/yr;

(B) process heaters [each process heater] with a rated heat input greater than or equal to 200 MMBtu/hr and an annual heat input greater than 2.2(10¹¹) Btu/yr;

(C) [each] stationary gas turbines [turbine] with a megawatt (MW) rating greater than or equal to 30 MW operated more than 850 hours per year;

(D) units [each unit] which use a chemical reagent for reduction of NO_x; and

(E) units [each unit] for which the owner or operator elects to comply with the NO_x emission specifications of [§117.205 or §117.207 of] this division [title] using a pound per MMBtu limit on a 30-day rolling average.

(2) The following [units listed in §117.205(g)(3)-(5) of this title] are not required to install CEMS or PEMS under this subsection: [-]

(A) units listed in §117.205(g)(3)-(5) of this title (relating to Emission Specifications); and

(B) ~~(3)~~ gas [Gas] turbines or other units which are affected units and are subject to continuous emissions monitoring requirements in accordance with 40 CFR 75 [shall comply with those requirements in lieu of complying with the 40 CFR 60 requirements of this section].

(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 following methods:

(1) install, calibrate, maintain, and operate a:

(A) CEMS in accordance with subsection (e) of this section; or

(B) PEMS in accordance with subsection (f) of this section; or

(2) periodically sample CO as follows:

(A) sample CO emissions with a portable analyzer (or 40 CFR 60, Appendix A reference method test apparatus) after manual combustion tuning or burner adjustments conducted for the purpose of minimizing NO_x emissions:

(i) whenever the resulting NO_x emissions measured by CEMS or predicted by PEMS are lower than levels for which CO emissions data was previously gathered; and

(ii) whenever NO_x emissions are sampled with a portable analyzer or 40 CFR 60, Appendix A reference method test apparatus; and

(B) sample CO emissions using the test methods and procedures of 40 CFR 60 in conjunction with the annual relative accuracy test audit of the NO_x and diluent analyzer.

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

(1) The CEMS shall meet the requirements of 40 CFR, Part 60 as follows:

(A) Section 60.13;

(B) Appendix B:

(i) Performance Specification 2, for NO_x;

(ii) Performance Specification 3, for diluent; and

(iii) Performance Specification 4, for CO, for owners or operators electing to use a CO CEMS; and

(C) After the final compliance date, audits in accordance with Section 5.1 of Appendix F, quality assurance procedures, except that a cylinder gas audit or relative accuracy audit may be performed in lieu of the annual relative accuracy test audit (RATA) required in Section 5.1.1.

(2) Monitor diluent, either O₂ or CO₂.

(3) One CEMS may be shared among units, provided:

(A) the exhaust stream of each unit is analyzed separately; and

(B) the CEMS meets the certification requirements of paragraph (1) of this subsection for each exhaust stream.

(4) The CEMS shall be subject to the approval of the executive director.

(f) ~~(e)~~ PEMS requirements. The owner or operator of any PEMS used to meet a pollutant monitoring requirement of this section must comply with the following. ~~[As an alternative to CEMS, the owner or operator of units subject to continuous monitoring requirements under this undesignated head may, with the approval of the executive director, elect to install, calibrate, maintain, and operate predictive emissions monitoring systems (PEMS) and totalizing fuel flow meters (for natural gas, refinery or process fuel gas, and fuel oil streams). The required PEMS and fuel flow meters may be used to predict any or all of the variables of NO_x, CO, and O₂ (or CO₂) emissions and fuel flow for each affected unit and shall be used to demonstrate continuous compliance with the emission limitations of §117.205 and §117.207 of this title or §117.223 of this title (relating to Source Cap) as applicable. CEMS shall be used to monitor any of the variables of NO_x, CO, and O₂ (or CO₂) not monitored with PEMS. As an alternative to using PEMS to monitor O₂ (or CO₂), subsection (b) of this section or]~~

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

(2) Monitor diluent, either O₂ or CO₂:

(A) using a CEMS

(i) in accordance with subsection (e)(1)(B)(ii) of this section; or

(ii) with a similar alternative method approved by the executive director and the United States Environmental Protection Agency (EPA) ~~[may be used]; or~~

(B) using a PEMS.

(3) Any PEMS shall meet ~~[the requirements of §117.219 of this title (relating to Notification, Recordkeeping, and Reporting Requirements) and all] the requirements of 40 CFR 75, Subpart E, except as provided in paragraphs (4)-(5) of this subsection. [that the following alternatives or exceptions may be made:]~~

(4) ~~[(1)]~~ The owner or operator may vary from ~~[alternatives to] 40 CFR 75, Subpart E if [which] the owner or operator:~~

(A) demonstrates to the satisfaction of the executive director ~~[TNRCC] and EPA that the alternative is [to be] substantially equivalent to the requirements of 40 CFR 75, Subpart E; or~~

(B) ~~[(2)] [requirements of 40 CFR 75, Subpart E which the owner or operator] demonstrates to the satisfaction of the executive director [TNRCC] that the requirement is [are] not applicable; [; and]~~

(5) ~~[(3)]~~ The owner or operator may substitute the following as an alternative to the test procedure of Subpart E for initial certification of any unit ~~[while firing its primary fuel, the owner or operator]:~~

(A) ~~[may]~~ perform the following initial certification tests:

(i) conduct initial RATA ~~[relative accuracy test audit (RATA)] at low, medium, and high levels of the key operating parameter affecting NO_x using [pursuant to] 40 CFR Part 60, Appendix B: [;]~~

(I) Performance Specification 2, subsection 4.3 (pertaining to NO_x);

(II) Performance Specification 3, subsection 2.3 (pertaining to O₂ or CO₂); and

(III) Performance Specification 4, ~~[and] subsection 2.3 (pertaining to CO₂), for owners or operators electing to use a CO PEMS [at low, medium, and high levels of the key operating parameter affecting NO_x]; and~~

(ii) conduct an F-test, a t-test, and a correlation analysis using ~~[pursuant to] 40 CFR 75, Subpart E at low, medium, and high levels of the key operating parameter affecting NO_x.~~

(I) Calculations shall be based on a minimum of 30 successive emission data points at each tested level which are either 15-minute ~~[averages], 20-minute [averages], or hourly averages.~~

(II) The F-test shall ~~[separately] be performed separately~~ at each tested level.

(III) The ~~[while the] t-test and the correlation analysis shall be performed using all data collected at the three tested levels; and~~

(B) ~~[shall] further demonstrate PEMS [accuracy with the following tests:]~~

~~[(1)] for each of the three successive quarters following the quarter in which initial certification was conducted, demonstrate accuracy and precision [of PEMS] for at least one unit of a category of equipment by performing RATA and statistical testing in accordance with subparagraph (A) of this paragraph for each of three successive quarters, beginning: [; and]~~

(i) no sooner than the quarter immediately following initial certification; and

(ii) no later than the first quarter following the final compliance date.

(6) ~~[(1)]~~ After the final compliance date, perform RATA for each unit: ~~[and semiannually thereafter, conduct RATA pursuant to 40 CFR 60, Appendix B, Performance Specification 2, subsection 4.3 (pertaining to NO_x); Performance Specification 3, subsection 2.3 (pertaining to O₂ or CO₂); and Performance Specification 4, subsection 2.3 (pertaining to CO)]~~

(A) at normal load operations; [;]

(B) using the appropriate procedures of paragraph (5)(A)(i)(I)-(III) of this subsection; and

(C) at the following frequency:

(i) semiannually; or

(ii) annually, if following the first semiannual RATA, ~~[may be performed on an annual basis rather than on a~~

semiannual basis if] the relative accuracy during the previous audit for each compound monitored by PEMS [the NO_x, CO, and O₂ (or CO₂) monitors] is less than or equal to 7.5 %_ [; and]

(7) [(iii)] The owner or operator shall, for each alternative fuel fired in a unit, certify the PEMS [shall be certified] in accordance with paragraph (5)(A) of this subsection. [subparagraph (A) of this paragraph] unless the alternative fuel effects on NO_x, CO, and O₂ (or CO₂) emissions were addressed in the model training process.

(8) The PEMS shall be subject to the approval of the executive director.

[(d) In addition to the totalizing fuel flow meters specified in subsections (a), (b), and (c) of this section, the owner or operator shall install and maintain totalizing fuel flow meters (for natural gas, refinery or process fuel gas, and fuel oil streams) on an individual unit basis on the following units:]

[(1) process heaters and commercial, institutional, and industrial boilers, including boilers and industrial furnaces regulated as existing facilities by the EPA at 40 CFR Part 266, Subpart H, and gas turbine supplemental waste heat recovery units, with a rated heat input greater than or equal to 40.0 MMBtu/hr and less than 100.0 MMBtu/hr;]

[(2) low annual capacity factor boilers and process heaters as defined in §117.10 of this title (relating to Definitions);]

[(3) lean-burn, stationary, reciprocating internal combustion engines which are located in the Houston/Galveston ozone nonattainment area and rated 150 horsepower (hp) or greater, or located in the Beaumont/ Port Arthur ozone nonattainment area and rated 300 hp or greater, operated 850 or more hours per year;]

[(4) stationary gas turbines with a MW rating greater than or equal to 1.0 MW and less than 30.0 MW operated more than 850 hours per year; and]

[(5) supplemental fuel fed to fluid catalytic cracking unit boilers.]

(g) [(e)] Engine monitoring. The owner or operator of any stationary gas engine subject to the emission specifications of [§117.205 or §117.207 of] this division [title] shall [install and maintain a totalizing fuel flow meter and perform biennial] stack test [testing of] engine [emissions of] NO_x and CO emissions as follows. [;]

(1) Use [measured in accordance with] the methods specified in §117.211(e) of this title (relating to Initial Demonstration of Compliance).

(2) Sample: [In lieu of performing stack sampling]

(A) on a biennial calendar basis; or [;]

(B) [an owner or operator may elect to install and operate an elapsed operating time meter and shall test the engine] within 15,000 hours of engine operation after the previous emission test, under the following conditions: [;]

(i) install and operate an elapsed operating time meter [The owner or operator who elects to test on an operating hour schedule shall]; and

(ii) submit, in writing, to the executive director [TNRCC] and any local air pollution agency having jurisdiction, biennially after the initial demonstration of compliance: [;]

(I) documentation of the actual recorded hours of engine operation since the previous emission test; [;] and

(II) an estimate of the date of the next required sampling.

(h) [(f)] Monitoring for 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 §117.205 or §117.207 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 [subsection (b) of] this section and monitor CO [or a PEMS] in compliance with subsection (d) [(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 shall be accurate to within plus or minus 5.0%.

(B) The steam-to-fuel or water-to-fuel ratio monitoring data shall constitute the method for demonstrating continuous compliance with the applicable emission specification of §117.205 or §117.207 of this title.

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

(i) [(g)] Run time meters. The owner or operator of any [low annual capacity factor] stationary gas turbine or stationary internal combustion engine claimed exempt using the 850 hours per year exemption of §117.203(b)(6)(B) [as defined in §117.10] of this title (relating to Exemptions) shall record the operating time with an elapsed run time meter.

(j) [(h)] Hydrogen (H₂) monitoring. The owner or operator claiming the H₂ multiplier of §117.205(b)(6), §117.207(g)(4), or (h) of this title [of any gas-fired boiler or process heater firing gaseous fuel which contains more than 50% hydrogen (H₂) by volume,] shall sample, analyze, and record every three hours the fuel gas composition to determine the volume percent H₂ [comply with the emission specifications of §117.205 or §117.207 of this title].

(1) The total H₂ volume flow in all gaseous fuel streams to the unit will be divided by the total gaseous volume flow to determine the volume percent of H₂ in the fuel supply to the unit.

(2) Fuel gas analysis shall be tested according to American Society of Testing and Materials (ASTM) Method D1945-81 or ASTM Method D2650-83, or other methods which are demonstrated to the satisfaction of the executive director and the EPA to be equivalent.

(3) A gaseous fuel stream containing 99% H₂ by volume or greater may use the following procedure to be exempted from the sampling and analysis requirements of this subsection.

(A) [(1)] A fuel gas analysis shall be performed initially using one of the test methods in this subsection to demonstrate that the gaseous fuel stream is 99% H₂ by volume or greater.

(B) [(2)] The process flow diagram of the process unit which is the source of the H₂ shall be supplied to the executive director [TNRCC] to illustrate the source and supply of the hydrogen stream.

(C) [(3)] The owner or operator shall certify that the gaseous fuel stream containing H₂ will continuously remain, as a minimum, at 99% H₂ by volume or greater during its use as a fuel to the combustion unit.

(k) [(i)] Data used for compliance. After the initial demonstration of compliance required by §117.211 of this title, [compliance with either §117.205 or §117.207 of this title, as applicable, shall be determined by] the methods required in this section shall be used to determine compliance with the emission specifications of this division. For enforcement purposes, the executive director may also use other commission [TNRCC] compliance methods to determine whether the source is in compliance with applicable emission limitations.

(l) [(j)] Enforcement of NO_x limits. If compliance with §117.205 of this title is selected, no unit subject to §117.205 of this title shall be operated at an emission rate higher than that allowed by the emission specifications of §117.205 of this title. If compliance with §117.207 of this title is selected, no unit subject to §117.207 of this title shall be operated at an emission rate higher than that approved by the executive director pursuant to §117.215(b) [§117.215(b)(4)] of this title (relating to Final Control Plan Procedures).

(m) [(k)] Loss of exemption. The owner or operator of any [~~low annual capacity factor~~] unit claimed exempt from the emission specifications of this division using the low annual capacity factor exemption of §117.205(g)(2) [~~boiler, process heater, stationary gas turbine, or stationary internal combustion engine, as defined in §117.10~~] of this title, shall notify the executive director within seven days if the Btu/yr or hour-per-year [~~hr/yr~~] limit specified in §117.10 of this title, as appropriate, is exceeded.

(1) If the [Btu/yr or hr/yr] limit [; as appropriate;] is exceeded, the exemption from the emission specifications of §117.205 of this title shall be 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 [Btu/yr or hr/yr] limit. [; as appropriate. Included with this compliance plan,] The plan [the owner or operator] shall include [submit] a schedule of increments of progress for the installation of the required control equipment.

(3) The [This] schedule shall be subject to the review and approval of the executive director.

[(l)] Instead of using CEMS or PEMS for CO, the owner or operator may substitute periodic sampling of CO as follows:}

[(1)] sample CO emissions with a portable analyzer (or 40 CFR 60, Appendix A reference method test apparatus) after manual combustion tuning or burner adjustments conducted for the purpose of minimizing NO_x emissions:}

[(A)] whenever the resulting NO_x emissions measured by CEMS or predicted by PEMS are lower than levels for which CO emissions data was previously gathered; and}

[(B)] whenever NO_x emissions are sampled with a portable analyzer or 40 CFR 60, Appendix A reference method test apparatus; and}

[(2)] sample CO emissions using the test methods and procedures of 40 CFR 60 in conjunction with the annual relative accuracy test audit of the NO_x and diluent analyzer.}

§117.215. *Final Control Plan Procedures.*

(a) [~~For sources complying with §117.205 of this title (relating to Emission Specifications),] The [the] owner or operator of units listed in §117.201 of this title (relating to Applicability) at a major [an affected] source of nitrogen oxides (NO_x) shall submit a final control report to show compliance with the requirements of this division (relating to Commercial, Institutional, and Industrial Sources) [§117.205 of this title by the date specified in §117.520(6) of this title (relating to Compliance Schedule For Commercial, Institutional, and Industrial Combustion Sources)]. The report must [shall] include a list of the units listed in §117.201 of this title, [all affected units] showing:}~~

(1) the NO_x emission specification resulting from application of §117.205 of this title (relating to Emission Specifications) for each non-exempt unit;

(2) the section under which NO_x compliance is being established for units specified in paragraph (1) of this subsection, either:

(A) §117.205 of this title;

(B) §117.207 of this title (relating to Alternative Plant-wide Emission Specifications);

(C) §117.221 of this title (relating to Alternative Case Specific Specifications);

(D) §117.223 (relating to Source Cap); or

(E) §117.570 (relating to Trading);

(3) the method of control of NO_x [nitrogen oxides (NO_x)] emissions for each unit; [and}

(4) the emissions measured by [results of] testing required in §117.211 of this title (relating to Initial Demonstration of Compliance);

(5) the submittal date, and whether sent to the Austin or the regional office (or both), of any compliance stack test report or relative accuracy test audit report required by §117.211 of this title which is not being submitted concurrently with the final compliance report; and

(6) the specific rule citation for any unit with a claimed exemption from the emission specifications of this division, for:

(A) boilers and heaters with a maximum rated capacity greater than or equal to 100.0 million Btu per hour;

(B) gas turbines with a megawatt (MW) rating greater than or equal to 10 MW; and

(C) gas-fired internal combustion engines rated greater than or equal to:

(i) 150 horsepower (hp) in the Houston/Galveston ozone nonattainment area; and

(ii) 300 hp in the Beaumont/Port Arthur or Dallas/Fort Worth ozone nonattainment area.

(b) For sources complying with §117.207 of this title [(relating to Alternative Plant-wide Emission Specifications)], in addition to the requirements of subsection (a) of this section, the owner or operator [of an affected source shall submit a final control plan to show attainment of the requirements of §117.207 of this title by the date specified in §117.520(6) of this title. The owner or operator] shall:

(1) assign to each affected:}

(A) boiler or process heater the maximum allowable NO_x emission rate in pound per million (MM) Btu (rolling 30-day average), or in pounds per hour (block one-hour average) indicating whether gas, high-hydrogen gas, solid, [while firing gaseous] or liquid fuel; which are allowable for that unit under the requirements of §117.207 of this title;

(B) [(2)] [assign to each affected] stationary gas turbine the maximum allowable NO_x emission in parts per million by volume at 15% oxygen, dry basis on a block one-hour average; and

(C) [(3)] [assign to each affected] stationary internal combustion engine the maximum allowable NO_x emission rate in grams per horsepower-hour on a block one-hour average;

(2) [(4)] submit a list to the executive director for approval of:

(A) the maximum allowable NO_x emission rates identified in paragraph (1) [paragraphs (1)-(3)] of this subsection [and maintain a copy of the approved list for verification of continued compliance with the requirements of §117.207 of this title]; and

(B) the maximum rated capacity for each unit;

(3) submit calculations used to calculate the plant-wide average in accordance with §117.207(g) of this title; and

(4) maintain a copy of the approved list of emission limits for verification of continued compliance with the requirements of §117.207 of this title.

[(5) submit a description of the NO_x control method used to achieve compliance with §117.207 of this title; and the results of testing for each unit in accordance with the requirements of §117.211 of this title. For boilers and process heaters complying with a pound per MMBtu emission limit on a rolling 30-day average, this information may be submitted according to the schedule given in §117.520(4) of this title; and]

[(6) submit a list summarizing the results of testing of each unit at maximum rated capacity, in accordance with the requirements of §117.211(e), (f)(2), and (f)(3) of this title.]

(c) For sources complying with §117.223 of this title (relating to Source Cap), in addition to the requirements of subsection (a) of this section, the owner or operator [of an affected source] shall submit: [a final control plan to show attainment of the requirements of §117.223 of this title by the date specified in §117.520(6) of this title.]

(1) the calculations used to calculate the 30-day average and maximum daily source cap allowable emission rates; and

(2) a list containing, for each unit in the cap:

(A) the historical average daily heat input information

H_p ;

(B) the maximum daily heat input, H_{mp} ;

(C) the applicable restriction, R_p ;

(D) the method of monitoring emissions; and

(3) an explanation of the basis of the values of H_p , H_{mp} , and R_p ; and

(4) the information applicable to shutdown units, specified in §117.223(g) and (h) of this title.

(d) The lists of information required in this section must be submitted electronically and on hard copy using forms provided by the executive director. This requirement does not apply to calculations or other explanatory information.

(e) The report must be submitted by the applicable date specified for final control plans in §117.520 of this title (relating to Compliance Schedule for Commercial, Institutional, and Industrial Sources). The plan must be updated with any emission compliance measurements submitted for units using continuous emissions monitoring system or predictive emissions monitoring system and complying with an emission limit on a rolling 30-day average, according to the applicable schedule given in §117.520 of this title.

§117.217. Revision of Final Control Plan.

A revised final control plan may be submitted by the owner or operator, along with any required permit applications. Such a plan shall adhere to the emission limits and the final compliance dates of this division [undesignated head] (relating to Commercial, Institutional, and Industrial Sources). For sources complying with §117.205 of this title (relating to Emission Specifications), or §117.207 of this title (relating to Alternative Plant-wide Emission Specifications), replacement new units may be included in the control plan. For sources complying with §117.223 of this title (relating to Source Cap), any new unit shall be included in the source cap, if the unit belongs to an equipment category which is included in the source cap. The revision of the final control plan shall be subject to the review and approval of the executive director.

§117.219. Notification, Recordkeeping, and Reporting Requirements.

[(a) For units subject to the exemptions allowed under §117.203(a) of this title (relating to Exemptions), hourly records shall be made of start-up and/or shutdown events and maintained for a period of at least two years. Records shall be available for inspection by the Texas Natural Resource Conservation Commission (TNRCC), United States Environmental Protection Agency (EPA), and any local air pollution control agency having jurisdiction upon request. These records shall include, but are not limited to: type of fuel burned; quantity of each type fuel burned; and the date, time, and duration of the procedure.]

(a) [(b)] Notification. The owner or operator of an affected source shall submit notification to the executive director, as follows:

(1) verbal notification of the date of any initial demonstration of compliance testing conducted under §117.211 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) performance evaluation conducted under §117.213 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.

(b) [(c)] Reporting of test results. The owner or operator of an affected unit shall furnish the executive director and any local air pollution control agency having jurisdiction a copy of any initial demonstration of compliance testing conducted under §117.211 of this title and [or] any CEMS or PEMS relative accuracy test audit (RATA) [performance evaluation] conducted under §117.213 of this title: []

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

(2) not later than ~~[Such results shall be submitted in accordance with]~~ the compliance schedule specified in §117.520 of this title (relating to Compliance Schedule For Commercial, Institutional, and Industrial Combustion Sources).

(c) ~~[(4)]~~ 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 §117.213 of this title shall report in writing to the executive director on a semiannual ~~[quarterly]~~ basis any exceedance of the applicable emission limitations ~~[in §117.205]~~ of this division (relating to Commercial, Institutional, and Industrial Sources) ~~[title (relating to Emission Specifications) or §117.207 of this title (relating to Alternative Plant-Wide Emission Specifications)]~~ and the monitoring system performance. All reports shall be postmarked or received by the 30th day following the end of each calendar semiannual period ~~[quarter]~~. Written reports shall include the following information:

(1) the magnitude of excess emissions computed in accordance with 40 Code of Federal Regulations, Part 60, §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 gas turbines using steam-to-fuel or water-to-fuel ratio monitoring to demonstrate compliance in accordance with §117.213(h)(2) ~~[\$117.213(f)(2)]~~ of this title, excess emissions are computed as each one-hour period during which 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 limitations in §117.205 of this title.

(B) For units complying with §117.223 of this title (relating to Source Cap), excess emissions are each daily period for which the total 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 start-ups, 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 during which 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 shall be stated in the report;

(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 ~~[TNRCC]~~ "Guidance for Preparation of Summary, Excess Emission, and Continuous Monitoring System Reports") shall be submitted, unless otherwise requested by the executive director ~~[of the TNRCC]~~. 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 shall both be submitted.

(d) ~~[(e)]~~ Reporting for engines. The owner or operator of any rich-burn engine subject to the emission limitations in §117.205 or §117.207 of this title shall report in writing to the executive director on a quarterly basis any excess emissions and the air-fuel ratio monitoring system performance. All reports shall be postmarked or received by the 30th day following the end of each calendar semiannual period ~~[quarter]~~. Written reports shall include the following information:

(1) the magnitude of excess emissions (based on the quarterly emission checks of §117.208(d)(7) of this title (relating to Operating Requirements) and the biennial emission testing required for demonstration of emissions compliance in accordance with §117.213(g) ~~[\$117.213(e)]~~ of this title, computed in pounds per hour and grams per horsepower-hour, any conversion factors used, the date and time of commencement and completion of each time period of excess emissions, and the engine operating time during the reporting period;

(2) specific identification, to the extent feasible, of each period of excess emissions that occurs during start-ups, shutdowns, and malfunctions of the engine, catalytic converter, or air-fuel ratio controller, the nature and cause of any malfunction (if known), and the corrective action taken or preventative measures adopted.

(e) ~~[(f)]~~ Recordkeeping. The owner or operator of ~~[an affected]~~ unit subject to the requirements of this division shall maintain written or electronic records of the data specified in this subsection ~~[of all continuous emissions monitoring and demonstration of compliance test results, hours of operation, and fuel usage rates]~~. Such records shall be kept for a period of at least five ~~[two]~~ years and shall be made available upon request by authorized representatives of the executive director ~~[TNRCC]~~, EPA, or local air pollution control agencies having jurisdiction. The records shall include:

(1) For each unit using a CEMS or PEMS in accordance with §117.213 of this title, ~~[The emission]~~ monitoring ~~[(as applicable) and fuel usage]~~ records of ~~[for each unit shall be recorded and maintained on an hourly basis]:~~

(A) ~~[(4)]~~ ~~[on an]~~ hourly ~~[basis]~~ emissions and fuel usage for units complying with an emission limit enforced on a block one-hour average; and

(B) ~~[(2)]~~ ~~[on a]~~ daily emissions and fuel usage ~~[basis]~~ for units complying with an emission limit enforced on a rolling 30-day average. Emissions recorded in units of: ~~[basis; and]~~

(i) pound per million Btu heat input; and

(ii) pounds or tons per day.

~~[(3)]~~ ~~on a monthly basis for units exempt from the emission specifications based on annual heat input or hours of operation per calendar year:]~~

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

(A) emissions measurements required by:

(i) §117.208(7) of this title (relating to Operating Requirements); and

(ii) §117.213(g) of this title; and

(B) catalytic converter or air-fuel ratio controller maintenance, including the date and nature of corrective actions taken.

(3) for each gas turbine monitored by steam-to-fuel or water-to-fuel ratio in accordance with §117.213(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.

(4) for hydrogen (H₂) fuel monitoring in accordance with §117.213(i) of this title, records of the volume percent H₂ every three hours.

(5) for units claimed exempt from the emission specifications of this division using the low annual capacity factor exemption of §117.205(g)(2), 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.

(6) Records of carbon monoxide measurements specified in §117.213(d)(2) of this title.

(7) 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.

(8) records of the results of performance testing, including initial demonstration of compliance testing conducted in accordance with §117.211 of this title.

§117.221. Alternative Case Specific Specifications.

(a) Where a person can demonstrate that an affected unit cannot attain the applicable requirements of §117.205 of this title (relating to Emission Specifications), [as applicable,] the executive director [; on a case-by-case basis after considering the technological and economic circumstances of the individual unit,] may approve emission specifications different from §117.205 of this title for that unit. The executive director:

(1) shall consider on a case-by-case basis the technological and economic circumstances of the individual unit;

(2) must determine [based on the determination] that such specifications are the result of the lowest emission limitation the unit is capable of meeting after the application of reasonably available control technology; and [-]

(3) in [H₂] determining whether to approve alternative emission specifications, [the executive director] may take into consideration the ability of the plant at which the unit is located to meet emission specifications through plant-wide averaging at maximum capacity.

(b) Any person affected by the [decision of the] executive [director] director's decision to deny an alternative case specific emission specification may file a motion for reconsideration [appeal to the commission by filing written notice of appeal with the executive director within 30 days after the decision. Such appeal is to be taken by written notification to the executive director]. The requirements of §50.39 [Section 403.74] of this title (relating to Motion for Reconsideration [Request for Action by the Commission]) apply [should be consulted for the method of requesting commission action on the appeal]. However, only a person affected may file a motion for reconsideration. Executive director approval does not necessarily constitute satisfaction of all federal requirements nor eliminate the need for approval by the United States Environmental Protection

Agency in cases where specified criteria for determining equivalency have not been clearly identified in applicable sections of this division [~~undesignated head~~] (relating to Commercial, Institutional, and Industrial Sources).

§117.223. Source Cap.

(a) An owner or operator may achieve compliance with the nitrogen oxides (NO_x) emission limits of §117.205 of this title (relating to Emission Specifications) by achieving equivalent NO_x [nitrogen oxides (NO_x)] emission reductions obtained by compliance with a source cap emission limitation in accordance with the requirements of this section. Each equipment category at a source whose individual emission units would otherwise be subject to the NO_x emission limits of §117.205 of this title may be included in the source cap. Any equipment category included in the source cap shall include all emission units belonging to that category. Equipment categories include, but are not limited to, the following: steam generation, electrical generation, and units with the same product outputs, such as ethylene cracking furnaces. All emission units not included in the source cap shall comply with the requirements of §117.205 or §117.207 (relating to Alternative Plant-wide Emission Specifications) of this title.

(b) The source cap allowable mass emission rate shall be calculated as follows.

(1) A rolling 30-day average emission cap shall be calculated for all emission units included in the source cap using the following equation:

Figure: 30 TAC §117.223(b)(1)

(2) A maximum daily cap shall be calculated for all emission units included in the source cap using the following equation:

Figure: 30 TAC §117.223(b)(2)

(3)-(6) (No change.)

(c) The owner or operator who elects to comply with this section shall:

(1) for each unit included in the source cap, either:

(A) install, calibrate, maintain, and operate a continuous exhaust NO_x [nitrogen oxides (NO_x)] monitor, carbon monoxide (CO) monitor, an oxygen (O₂) (or carbon dioxide (CO₂)) diluent monitor, and a totalizing fuel flow meter in accordance with the requirements of §117.213 [~~§117.213(b)~~] of this title (relating to Continuous Demonstration of Compliance). The required continuous emissions monitoring systems (CEMS) and fuel flow meters shall be used to measure NO_x, CO, and O₂ (or CO₂) emissions and fuel use for each affected unit and shall be used to demonstrate continuous compliance with the source cap;

(B) install, calibrate, maintain, and operate a predictive emissions monitoring system (PEMS) and a totalizing fuel flow meter in accordance with the requirements of §117.213 [~~§117.213(e)~~] of this title. The required PEMS and fuel flow meters shall be used to measure NO_x, CO, and O₂ (or CO₂) emissions and fuel flow for each affected unit and shall be used to demonstrate continuous compliance with the source cap; or

(C) for units not subject to continuous monitoring requirements [; as provided for in §117.213(a) of this title,] and units belonging to the equipment classes listed in §117.207(f) of this title, the owner or operator may use the maximum emission rate as measured by hourly emission rate testing conducted in accordance with §117.211(e) of this title (relating to Initial Demonstration of Compliance) in lieu of CEMS or PEMS. Emission rates for these

units shall be limited to the maximum emission rates obtained from testing conducted under §117.211(e) of this title.

(2) For each operating unit equipped with CEMS, the owner or operator shall either use a PEMS pursuant to §117.213 [~~§117.213(e)~~] of this title, or the maximum emission rate as measured by hourly emission rate testing conducted in accordance with §117.211(e) of this title, to provide emissions compliance data during periods when the CEMS is off-line. The methods specified in 40 CFR 75.46 shall be used to provide emissions substitution data for units equipped with PEMS.

(d) (No change.)

(e) The owner or operator of any units operating under this provision shall report any exceedance of the source cap emission limit within 48 hours to the appropriate regional office. The owner or operator shall then follow up within 21 days of the exceedance with a written report which includes an analysis of the cause for the exceedance with appropriate data to demonstrate the amount of emissions in excess of the applicable limit and the necessary corrective actions taken by the company to assure future compliance. Additionally, the owner or operator shall submit semiannual [~~quarterly~~] reports for the monitoring systems in accordance with §117.219 of this title.

(f) (No change.)

(g) A unit which has operated since November 15, 1990, and has since been permanently retired or decommissioned and rendered inoperable prior to June 9, 1993, may be included in the source cap emission limit under the following conditions.

(1)-(2) (No change.)

(3) The actual heat input shall be calculated according to subsection (b)(1) of this section. If the unit was not in service 24 consecutive months between January 1, 1990, and June 9, 1993, the actual heat input shall be the average daily heat input for the continuous time period that the unit was in service, plus one standard deviation of the average daily heat input for that period. The maximum heat input shall be the maximum heat input, as certified to the executive director [TNRCC], allowed or possible (whichever is lower) in a 24-hour period;

(4)-(5) (No change.)

(h) (No change.)

(i) An owner or operator who chooses to use the source cap option shall include in the initial control plan required to be filed under §117.209 of this title (relating to Initial Control Plan Procedures) a plan for initial compliance. The owner or operator shall include in the initial control plan the identification of the election to use the source cap procedure as specified in this section to achieve compliance with this section and shall specifically identify all sources that will be included in the source cap. The owner or operator shall also include in the initial control plan the method of calculating the actual heat input for each unit included in the source cap, as specified in subsection (b)(1) of this section. An owner or operator who chooses to use the source cap option shall include in the final control plan procedures of §117.215 of this title (relating to Final Control Plan Procedures) the information necessary under this section to demonstrate initial [~~final~~] compliance with the source cap.

(j) (No change.)

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Filed with the Office of the Secretary of State on October 26, 1998.

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Margaret Hoffman

Director, Environmental Law Division

Texas Natural Resource Conservation Commission

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For further information, please call: (512) 239-1970



Subchapter D. Administrative Provisions

30 TAC §§117.510, 117.520, 117.540

STATUTORY AUTHORITY The amendments are proposed under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.012, which requires the commission to develop a general, comprehensive plan for the proper control of the state's air; §382.016, which authorizes the commission to prescribe requirements for owners or operators of sources to make and maintain records of emissions measurements; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; and §382.051(d), which authorizes the commission to adopt rules as necessary to comply with changes in federal law or regulations applicable to permits under Chapter 382.

The proposed amendments implement the Health and Safety Code, §382.012.

§117.510. Compliance Schedule For Utility Electric Generation.

(a) The owner or operator of each electric utility in the Beaumont/Port Arthur or Houston/Galveston ozone nonattainment area shall comply with the requirements of Subchapter B, Division 1 of this chapter [All persons affected by the provisions of §§117.101, 117.103, 117.105, 117.107, 117.109, 117.111, 117.113, 117.115, 117.117, 117.119, and 117.121 of this title] (relating to Utility Electric Generation) [shall be in compliance] as soon as practicable, but no later than November 15, 1999 (final compliance date). [Additionally,] The owner or operator [all affected persons] shall [meet the following compliance schedules and submit written notification to the executive director]:

(1) no later than April 1, 1994, submit a plan for compliance in accordance with §117.109 of this title (relating to Initial Control Plan Procedures);

(2) conduct applicable continuous emissions monitoring system (CEMS) or predictive emissions monitoring systems (PEMS) evaluations and quality assurance procedures as specified in §117.113 of this title (relating to Continuous Demonstration of Compliance) according to the following schedules:

(A) for equipment and software required pursuant to 40 Code of Federal Regulations (CFR) 75, no later than January 1, 1995 for units firing coal, and no later than July 1, 1995 for units firing natural gas or oil; and

(B) for equipment and software not required under 40 CFR [Code of Federal Regulations (CFR)] 75, no later than November 15, 1999;

(3) install all nitrogen oxides (NO_x) abatement equipment and implement all NO_x control techniques no later than November 15, 1999;

(4) submit to the executive director:

(A) for units operating without CEMS or PEMS, the results of ~~conduct~~ applicable tests for initial demonstration of compliance as specified in §117.111 of this title (relating to Initial Demonstration of Compliance); ~~and submit the results~~ by April 1, 1994, or as early as practicable, but in no case later than November 15, 1999;

(B) ~~[(5)]~~ for units operating with CEMS or PEMS in accordance with §117.113 of this title, ~~and complying with the NO_x emission limit on a rolling 30-day average, conduct the applicable tests for the initial demonstration of compliance as specified in §117.111 of this title and submit~~ the results of:

(i) the applicable CEMS or PEMS performance evaluation and quality assurance procedures as specified in §117.113 of this title ~~[no later than January 15, 2000]; and~~

(ii) the applicable tests for the initial demonstration of compliance as specified in §117.111 of this title;

(iii) no later than:

(I) November 15, 1999, for units complying with the NO_x emission limit on an hourly average; and

(II) January 15, 2000, for units complying with the NO_x emission limit on a rolling 30-day average;

~~[(6) for units operating with CEMS or PEMS and complying with the NO_x emission limit in pounds per hour on a block one-hour average, conduct the applicable tests for the initial demonstration of compliance as specified in §117.111 of this title and submit the results of the applicable CEMS or PEMS performance evaluation and quality assurance procedures as specified in §117.113 of this title by November 15, 1999;]~~

(5) ~~[(7)]~~ conduct applicable tests for initial demonstration of compliance with the NO_x emission limit for fuel oil firing, in accordance with §117.111(d)(2) of this title, and submit test results within 60 days after completion of such testing; and

(6) ~~[(8)] [no later than November 15, 1999;]~~ submit a final control plan for compliance in accordance with §117.115 of this title (relating to Final Control Plan Procedures), no later than November 15, 1999.

(b) The owner or operator of each electric utility in the Dallas/Fort Worth ozone nonattainment area shall comply with the requirements of Subchapter B, Division 1 of this chapter as soon as practicable, but no later than November 15, 1999 (final compliance date). The owner or operator shall:

(1) conduct applicable CEMS or PEMS evaluations and quality assurance procedures as specified in §117.113 of this title no later than November 15, 1999;

(2) install all NO_x abatement equipment and implement all NO_x control techniques no later than November 15, 1999;

(3) submit to the executive director:

(A) for units operating without CEMS or PEMS, the results of applicable tests for initial demonstration of compliance as specified in §117.111 of this title no later than November 15, 1999;

(B) for units operating with CEMS or PEMS in accordance with §117.113 of this title, the results of:

(i) the applicable CEMS or PEMS performance evaluation and quality assurance procedures as specified in §117.113 of this title; and

(ii) the applicable tests for the initial demonstration of compliance as specified in §117.111 of this title;

(iii) no later than:

(I) November 15, 1999 for units complying with the NO_x emission limit in pounds per hour on a block one-hour average.

(II) January 15, 2000 for units complying with the NO_x emission limit on a rolling 30-day average; and

(4) conduct applicable tests for initial demonstration of compliance with the NO_x emission limit for fuel oil firing, in accordance with §117.111(d)(2) of this title, and submit test results within 60 days after completion of such testing; and

(5) submit a final control plan for compliance in accordance with §117.115 of this title, no later than November 15, 1999.

§117.520. Compliance Schedule For Commercial, Institutional, and Industrial Combustion Sources.

(a) The owner or operator of each commercial, institutional, and industrial source in the Beaumont/Port Arthur or Houston/Galveston ozone nonattainment area shall comply with the requirements of Subchapter B, Division 2 of this chapter, [All persons affected by the provisions of §§117.201, 117.203, 117.205, 117.207-117.209, 117.211, 117.213, 117.215, 117.217, 117.219, 117.221, and 117.223 of this title] (relating to Commercial, Institutional, and Industrial Sources) [shall be in compliance] as soon as practicable, but no later than November 15, 1999 (final compliance date). The owner or operator [All affected persons] shall [meet the following compliance schedules and submit written notification to the executive director]:

(1) submit a plan for compliance in accordance with §117.209 of this title (relating to Initial Control Plan Procedures) according to the following schedule:

(A) for major sources of nitrogen oxides (NO_x) which have units subject to emission specifications under this chapter, submit an initial control plan for all such units no later than April 1, 1994;

(B) for major sources of NO_x which have no units subject to emission specifications under this chapter, submit an initial control plan for all such units no later than September 1, 1994; and

(C) for major sources of NO_x subject to either subparagraphs (A) or (B) of this paragraph, submit the information required by § 117.209(c)(6), (7), and (9) of this title no later than September 1, 1994;

(2) install all NO_x abatement equipment and implement all NO_x control techniques no later than November 15, 1999;

(3) submit to the executive director:

(A) for units operating without continuous emissions monitoring system (CEMS) or predictive emissions monitoring systems (PEMS), the results of ~~conduct~~ applicable tests for initial demonstration of compliance as specified in §117.211 of this title (relating to Initial Demonstration of Compliance); ~~and submit the results~~ by April 1, 1994, or as early as practicable, but in no case later than November 15, 1999;

(B) ~~[(4)]~~ for units operating with CEMS or PEMS in accordance with §117.213 of this title (relating to Continuous Demonstration of Compliance), [and complying with the NO_x emission limit on a rolling 30-day average, conduct the applicable tests for the initial demonstration of compliance as specified in §117.211 of this title and] submit the results of:

(i) the applicable CEMS or PEMS performance evaluation and quality assurance procedures as specified in §117.213(e)(1)(A)-(B) and (f)(3)-(5)(A) [§117.213] of this title [(relating to Continuous Demonstration of Compliance) no later than January 15, 2000]; and

(ii) the applicable tests for the initial demonstration of compliance as specified in §117.211 of this title;

(iii) no later than:

(I) November 15, 1999, for units complying with the NO_x emission limit on an hourly average; and

(II) January 15, 2000, for units complying with the NO_x emission limit on a rolling 30-day average;

[(5) for units operating with CEMS or PEMS and complying with the NO_x emission limit in pounds per hour on a block one-hour average, conduct the applicable tests for the initial demonstration of compliance as specified in §117.211 of this title and submit the results of the applicable CEMS or PEMS performance evaluation and quality assurance procedures as specified in §117.213 of this title by November 15, 1999; and]

(C) [(6)] [no later than November 15, 1999, submit] a final control plan for compliance in accordance with §117.215 of this title (relating to Final Control Plan Procedures), no later than November 15, 1999; and

(D) the first semiannual report required by §117.217(c) or (d) of this title (relating to Revision of Final Control Plan), covering the period November 15, 1999 through December 31, 1999, no later than January 31, 2000.

(b) The owner or operator of each commercial, institutional, and industrial source in the Dallas/Fort Worth ozone nonattainment area shall comply with the requirements of Subchapter B, Division 2 of this chapter as soon as practicable, but no later than November 15, 1999 (final compliance date). The owner or operator shall:

(1) install all NO_x abatement equipment and implement all NO_x control techniques no later than November 15, 1999; and

(2) submit to the executive director:

(A) for units operating without CEMS or PEMS, the results of applicable tests for initial demonstration of compliance as specified in §117.211 of this title as early as practicable, but in no case later than November 15, 1999;

(B) for units operating with CEMS or PEMS in accordance with §117.213 of this title, the results of:

(i) the applicable CEMS or PEMS performance evaluation and quality assurance procedures as specified in §117.213(e)(1)(A)-(B) and (f)(3)-(5)(A) of this title; and

(ii) the applicable tests for the initial demonstration of compliance as specified in §117.211 of this title;

(iii) no later than:

(I) November 15, 1999, for units complying with the NO_x emission limit on an hourly average; and

(II) January 15, 2000, for units complying with the NO_x emission limit on a rolling 30-day average;

(C) a final control plan for compliance in accordance with §117.215 of this title, no later than November 15, 1999; and

(D) the first semiannual report required by §117.217(c) or (d) of this title, covering the period November 15, 1999 through December 31, 1999, no later than January 31, 2000.

§117.540. Phased Reasonably Available Control Technology (RACT).

(a) The owner or operator of a source located in the Beaumont/Port Arthur or Houston/Galveston ozone nonattainment area affected by the provisions of this chapter (relating to Control of Air Pollution from Nitrogen Compounds) who determines that compliance by November 15, 1999, is not practicable may submit a petition for phased reasonably available control technology (RACT) [RACT]. The process for submitting a petition and receiving approval shall be based on the following.

(1) The petition shall be submitted by March 15, 1999, or as soon as possible after such date upon a demonstration by the owner or operator that the petition was not submitted by March 15, 1999 due to unforeseen circumstances.

(2) The owner or operator of the affected unit or units shall submit information in the petition to the executive director [commission] and a copy to the EPA regional office in Dallas which will demonstrate all of the following:

(A) emission reduction credits (ERCs) or discrete emission reduction credits (DERCs), in accordance with §101.29 of this title (relating to Emission Credit Banking and Trading), are not reasonably available in an amount equal to the quantity of emission reductions required under this chapter. If ERCs or DERCs are reasonably available, they shall be applied to meet the emission reductions required under this chapter, in accordance with §117.570 of this title (relating to Trading) and §101.29 of this title.

(B) compliance by November 15, 1999, is impracticable due to the unavailability of nitrogen oxides (NO_x) abatement equipment, engineering services, or construction labor; system unreliability; manufacturing unreliability; equipment unreliability; or other technological and economic factors as the executive director [commission] determines are appropriate;

(C) there is a proposed stage-by-stage program for compliance and clearly specified compliance milestones for each unit;

(D) there is a commitment to implement the portion of the phased RACT petition that can be implemented by November 15, 1999; and

(E) the final compliance date specified in the petition shall be as soon as practicable, but in no case later than February 15, 2001, except as approved by the executive director.

(3) Each petition for phased RACT shall contain the information required by at least one of the following criteria.

(A) If compliance by November 15, 1999, is impracticable due to the unavailability of NO_x abatement equipment, engineering services, or construction labor, the following information shall be included in the petition for phased RACT:

(i) a list of the company names, addresses, and telephone numbers of vendors who are qualified to provide the services and equipment capable of meeting the applicable emission limitation under this chapter and who have been contacted to obtain the required services and equipment. A copy of the request for bids along with the dates of contact shall also be provided to show a good-faith effort to obtain the required services and equipment necessary to meet the requirements of this chapter by November 15, 1999; and

(ii) copies of responses from each of the vendors listed in clause (i) of this subparagraph showing that they cannot provide the necessary services and install the appropriate equipment in time for the unit to comply by November 15, 1999. Such responses shall include the reasons why the services cannot be provided and why the equipment cannot be installed in a timely manner.

(iii) if work on the project will be provided by the owner or operator, the petition for phased RACT shall include documentation that the necessary NO_x abatement equipment, engineering services, or construction labor could not be obtained in a timely manner from either in-house or external sources, as well as a detailed design or installation schedule for the required services or equipment to be provided by the owner or operator.

(B) If compliance by November 15, 1999, is impracticable due to system unreliability for sources in the utility industry, defined as the inability or threatened inability of a utility grid system to fulfill obligations to supply electric power, the following information shall be included in the petition for phased RACT:

(i) standard load forecasts, based on standard forecasting models available throughout the utility industry, applied to the period November 15, 1997 -November 14, 1999;

(ii) outage schedule for all units in the utility grid to which the subject unit belongs; and

(iii) specific reasons why an outage for the purpose of installing NO_x emission control equipment cannot be scheduled by November 15, 1999.

(C) If compliance by November 15, 1999, is impracticable due to manufacturing unreliability, defined as the inability or threatened inability of a source to fulfill contractual obligations to supply a product or products, the following information shall be included in the petition for phased RACT:

(i) certification by an authorized official of the company showing manufacturing obligations for which the company is contractually obligated. Manufacturing obligation information shall include copies of contracts signed by an authorized official of the company or similar documentation and shall exclude commercially sensitive information;

(ii) historical and planned outage schedules for all units whose manufacturing capacity would be affected by the outage of the affected unit; and

(iii) specific reasons why an outage for the purpose of installing NO_x emission control equipment cannot be scheduled by November 15, 1999.

(D) If compliance by November 15, 1999, is impracticable due to equipment unreliability, defined as the reduced availability and operating reliability of a unit resulting from the operation of NO_x control equipment on that unit, the following information shall be included in the petition for phased RACT:

(i) specific reasons why the new NO_x control equipment will reduce the current reliability of the operating unit;

(ii) historical availability and forced outage data expressed as annual percentages and the differences in each expected with the new NO_x control equipment. Availability is defined as the sum of hours the equipment is in service plus the hours the equipment is not in service, but available for service, divided by the number of hours in the reporting period. A forced outage is defined as down time which occurs as a result of a trip, emergency shutdown, or unplanned maintenance;

(iii) most recent operating history available from the vendor for the new NO_x control equipment, including actual test operating hours, actual load during testing, and specific problems that resulted in lost availability; and

(iv) reasons why the NO_x control technology is not considered proven including vendor test and commercial operating data, if available from the vendor.

(E) If compliance by November 15, 1999, is impracticable due to other technical factors, the petition for phased RACT shall contain such documentation as the executive director establishes is appropriate for such technical factors.

(F) If compliance by November 15, 1999, is unreasonable due to economic considerations, excluding the time value of money, the petition for phased RACT shall contain the following information showing comparisons of the cost of compliance by November 15, 1999 and the cost of compliance by the final compliance date specified in the petition:

(i) the costs of additional outages, if applicable, necessitated by compliance with the emission specifications of this chapter by November 15, 1999, as demonstrated by comparison to costs of actual historical and planned outages;

(ii) comparisons of the cost of obtaining the NO_x abatement equipment, engineering services, or construction labor necessary to comply by November 15, 1999, and the cost of obtaining the NO_x abatement equipment, engineering services, or construction labor by the final compliance date specified in the petition. Copies of legally binding contracts, signed by an authorized official of the company, shall be submitted to document these costs. If the required NO_x abatement equipment, engineering services, or construction labor will be provided by the owner or operator, as provided for in paragraph (4) of this subsection, certification by an authorized official of the company may be submitted in lieu of contracts to document these costs; or

(iii) other economic factors, documented as the executive director establishes is appropriate for such economic factors.

(4) All petitions for phased RACT shall include a list of the company names, addresses, and telephone numbers of persons who own or control ERCs or DERCs, and who have been contacted in efforts to obtain the ERCs or DERCs for purposes of meeting the emission reductions required under this chapter. For each person or company contacted, the list shall contain a description of the information obtained, including but not limited to the date of contact, availability of the ERCs or DERCs, sale price requested by the owner or controller of the ERCs or DERCs, sale price offered by the prospective buyer of the ERCs or DERCs, and an explanation of the reasons why the ERCs or DERCs, if available, were not purchased for purposes of meeting the emission reductions required under this chapter.

(5) All petitions for phased RACT shall include copies of legally binding contracts with the primary vendors for each project, signed by an authorized official of the company, showing a detailed design or installation schedule for the required services or equipment to be provided by that vendor, with a completion date no later than February 15, 2001, except as approved by the executive director. Any commercially sensitive financial information or trade secrets should be excised from the contracts.

(6) Within 30 days of receiving a petition for phased RACT, the executive director shall inform the applicant in writing

that the petition is complete or that additional information is required. If the petition is deficient, the notification shall state any additional information required. The requested information correcting the deficiency shall be received by the executive director within 30 days of the date of the letter notifying the applicant of the deficiency.

(7) The executive director shall approve or deny the petition within 90 days of receiving an administratively complete phased RACT petition. The executive director shall approve a petition for phased RACT if the executive director determines that compliance is not practicable by November 15, 1999, because of either the unavailability of nitrogen oxides abatement equipment, engineering services, or construction labor; system unreliability; manufacturing unreliability; equipment unreliability; or other technological and economic factors as the executive director determines are appropriate.

(8) Any person affected by the executive director's decision to deny a petition for phased RACT or to deny a revision to an approved phased RACT petition may file a motion for reconsideration. ~~The [Notwithstanding the applicability provisions of §50.31(e)(7) of this title (relating to Purpose and Applicability); the]~~ requirements of §50.39 of this title (relating to Motion for Reconsideration) apply. However, only a person affected may file a motion for reconsideration. Approved petitions for phased RACT may be revised by the executive director upon a showing of just cause by the applicant.

(9) Approval of a phased RACT schedule by the executive director ~~[commission]~~ does not waive any applicable federal requirements or eliminate the need for approval by EPA.

(10) The holder of an approved phased RACT determination shall comply with each specified compliance milestone and each date for compliance provided in the approved petition, as well as any other condition established in the approval.

(b) The owner or operator of a source located in the Dallas/Fort Worth ozone nonattainment area affected by the provisions of this chapter who determines that compliance by November 15, 1999, is not practicable may submit a petition for phased RACT. The process for submitting a petition and receiving approval shall be based on the following.

(1) The petition shall be submitted by March 15, 1999, or as soon as possible after such date upon a demonstration by the owner or operator that the petition was not submitted by March 15, 1999 due to unforeseen circumstances.

(2) The owner or operator of the affected unit or units shall submit information in the petition to the executive director and a copy to the EPA regional office in Dallas which will demonstrate all of the following:

(A) ERCs or DERCs, in accordance with §101.29 of this title, are not reasonably available in an amount equal to the quantity of emission reductions required under this chapter. If ERCs or DERCs are reasonably available, they shall be applied to meet the emission reductions required under this chapter, in accordance with §117.570 of this title and §101.29 of this title.

(B) compliance by November 15, 1999, is impracticable due to the unavailability of nitrogen oxides (NO_x) abatement equipment, engineering services, or construction labor; system unreliability; manufacturing unreliability; equipment unreliability; or other technological and economic factors as the executive director determines are appropriate;

(C) there is a proposed stage-by-stage program for compliance and clearly specified compliance milestones for each unit;

(D) there is a commitment to implement the portion of the phased RACT petition that can be implemented by November 15, 1999; and

(E) the final compliance date specified in the petition shall be as soon as practicable, but in no case later than February 15, 2001, except as approved by the executive director.

(3) Each petition for phased RACT shall contain the information required by at least one of the following criteria.

(A) If compliance by November 15, 1999, is impracticable due to the unavailability of NO_x abatement equipment, engineering services, or construction labor, the following information shall be included in the petition for phased RACT:

(i) a list of the company names, addresses, and telephone numbers of vendors who are qualified to provide the services and equipment capable of meeting the applicable emission limitation under this chapter and who have been contacted to obtain the required services and equipment. A copy of the request for bids along with the dates of contact shall also be provided to show a good-faith effort to obtain the required services and equipment necessary to meet the requirements of this chapter by November 15, 1999; and

(ii) copies of responses from each of the vendors listed in clause (i) of this subparagraph showing that they cannot provide the necessary services and install the appropriate equipment in time for the unit to comply by November 15, 1999. Such responses shall include the reasons why the services cannot be provided and why the equipment cannot be installed in a timely manner.

(iii) if work on the project will be provided by the owner or operator, the petition for phased RACT shall include documentation that the necessary NO_x abatement equipment, engineering services, or construction labor could not be obtained in a timely manner from either in-house or external sources, as well as a detailed design or installation schedule for the required services or equipment to be provided by the owner or operator.

(B) If compliance by November 15, 1999, is impracticable due to system unreliability for sources in the utility industry, defined as the inability or threatened inability of a utility grid system to fulfill obligations to supply electric power, the following information shall be included in the petition for phased RACT:

(i) standard load forecasts, based on standard forecasting models available throughout the utility industry, applied to the period November 15, 1997 - November 14, 1999;

(ii) outage schedule for all units in the utility grid to which the subject unit belongs; and

(iii) specific reasons why an outage for the purpose of installing NO_x emission control equipment cannot be scheduled by November 15, 1999.

(C) If compliance by November 15, 1999, is impracticable due to manufacturing unreliability, defined as the inability or threatened inability of a source to fulfill contractual obligations to supply a product or products, the following information shall be included in the petition for phased RACT:

(i) certification by an authorized official of the company showing manufacturing obligations for which the company is contractually obligated. Manufacturing obligation information shall include copies of contracts signed by an authorized official of the company or similar documentation and shall exclude commercially sensitive information;

(ii) historical and planned outage schedules for all units whose manufacturing capacity would be affected by the outage of the affected unit; and

(iii) specific reasons why an outage for the purpose of installing NO_x emission control equipment cannot be scheduled by November 15, 1999.

(D) If compliance by November 15, 1999, is impracticable due to equipment unreliability, defined as the reduced availability and operating reliability of a unit resulting from the operation of NO_x control equipment on that unit, the following information shall be included in the petition for phased RACT:

(i) specific reasons why the new NO_x control equipment will reduce the current reliability of the operating unit;

(ii) historical availability and forced outage data expressed as annual percentages and the differences in each expected with the new NO_x control equipment. Availability is defined as the sum of hours the equipment is in service plus the hours the equipment is not in service, but available for service, divided by the number of hours in the reporting period. A forced outage is defined as down time which occurs as a result of a trip, emergency shutdown, or unplanned maintenance;

(iii) most recent operating history available from the vendor for the new NO_x control equipment, including actual test operating hours, actual load during testing, and specific problems that resulted in lost availability; and

(iv) reasons why the NO_x control technology is not considered proven including vendor test and commercial operating data, if available from the vendor.

(E) If compliance by November 15, 1999, is impracticable due to other technical factors, the petition for phased RACT shall contain such documentation as the executive director establishes is appropriate for such technical factors.

(F) If compliance by November 15, 1999, is unreasonable due to economic considerations, excluding the time value of money, the petition for phased RACT shall contain the following information showing comparisons of the cost of compliance by November 15, 1999 and the cost of compliance by the final compliance date specified in the petition:

(i) the costs of additional outages, if applicable, necessitated by compliance with the emission specifications of this chapter by November 15, 1999, as demonstrated by comparison to costs of actual historical and planned outages;

(ii) comparisons of the cost of obtaining the NO_x abatement equipment, engineering services, or construction labor necessary to comply by November 15, 1999, and the cost of obtaining the NO_x abatement equipment, engineering services, or construction labor by the final compliance date specified in the petition. Copies of legally binding contracts, signed by an authorized official of the company, shall be submitted to document these costs. If the required NO_x abatement equipment, engineering services, or construction labor will be provided by the owner or operator, as provided for in paragraph (4) of this subsection, certification by an authorized official of the company may be submitted in lieu of contracts to document these costs; or

(iii) other economic factors, documented as the executive director establishes is appropriate for such economic factors.

(4) All petitions for phased RACT shall include a list of the company names, addresses, and telephone numbers of persons who own or control ERCs or DERCs, and who have been contacted in efforts to obtain the ERCs or DERCs for purposes of meeting the emission reductions required under this chapter. For each person or company contacted, the list shall contain a description of the information obtained, including but not limited to the date of contact, availability of the ERCs or DERCs, sale price requested by the owner or controller of the ERCs or DERCs, sale price offered by the prospective buyer of the ERCs or DERCs, and an explanation of the reasons why the ERCs or DERCs, if available, were not purchased for purposes of meeting the emission reductions required under this chapter.

(5) All petitions for phased RACT shall include copies of legally binding contracts with the primary vendors for each project, signed by an authorized official of the company, showing a detailed design or installation schedule for the required services or equipment to be provided by that vendor, with a completion date no later than February 15, 2001, except as approved by the executive director. Any commercially sensitive financial information or trade secrets should be excised from the contracts.

(6) Within 30 days of receiving a petition for phased RACT, the executive director shall inform the applicant in writing that the petition is complete or that additional information is required. If the petition is deficient, the notification shall state any additional information required. The requested information correcting the deficiency shall be received by the executive director within 30 days of the date of the letter notifying the applicant of the deficiency.

(7) The executive director shall approve or deny the petition within 90 days of receiving an administratively complete phased RACT petition. The executive director shall approve a petition for phased RACT if the executive director determines that compliance is not practicable by November 15, 1999, because of either the unavailability of nitrogen oxides abatement equipment, engineering services, or construction labor; system unreliability; manufacturing unreliability; equipment unreliability; or other technological and economic factors as the executive director determines are appropriate.

(8) Any person affected by the executive director's decision to deny a petition for phased RACT or to deny a revision to an approved phased RACT petition may file a motion for reconsideration. The requirements of §50.39 of this title apply. However, only a person affected may file a motion for reconsideration. Approved petitions for phased RACT may be revised by the executive director upon a showing of just cause by the applicant.

(9) Approval of a phased RACT schedule by the executive director does not waive any applicable federal requirements or eliminate the need for approval by EPA.

(10) The holder of an approved phased RACT determination shall comply with each specified compliance milestone and each date for compliance provided in the approved petition, as well as any other condition established in the approval.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Filed with the Office of the Secretary of State on October 26, 1998.

TRD-9816658
Margaret Hoffman
Director, Environmental Law Division

Texas Natural Resource Conservation Commission
Proposed date of adoption: February 24, 1999
For further information, please call: (512) 239-1970



Subchapter E. Gas-Fired Steam Generation

30 TAC §117.601

STATUTORY AUTHORITY The amendment is proposed under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.012, which requires the commission to develop a general, comprehensive plan for the proper control of the state's air; §382.016, which authorizes the commission to prescribe requirements for owners or operators of sources to make and maintain records of emissions measurements; §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA; and §382.051(d), which authorizes the commission to adopt rules as necessary to comply with changes in federal law or regulations applicable to permits under Chapter 382.

The proposed amendment implements the Health and Safety Code, §382.012.

§117.601. Gas-Fired Steam Generation.

(a) Subsections (b), (c), and (d) of this section shall apply only in the Dallas/Fort Worth Air Quality Control Region which consists of Collin, Cooke, Dallas, Denton, Ellis, Erath, Fannin, Grayson, Hood, Hunt, Johnson, Kaufman, Navarro, Palo Pinto, Parker, Rockwall, Somervell, Tarrant, and Wise Counties and in the Houston/Galveston Air Quality Control Region which consists of Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Waller, and Wharton Counties. For gas-fired steam generators located in applicable ozone nonattainment areas, only the emission limitations of Subchapter B of this chapter (relating to Combustion at Existing Major Sources) [§117.105 of this title (relating to Emission Specifications); §117.107 of this title (relating to Alternative System-Wide Emission Specifications); §117.205 of this title (relating to Emission Specifications); and §117.207 of this title (relating to Alternative Plant-Wide Emission Specifications)] shall apply after the applicable final compliance date specified in Subchapter D of this chapter (relating to Administrative Provisions) [November 15, 1999].

(b)-(e) (No change.)

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Filed with the Office of the Secretary of State on October 26, 1998.

TRD-9816659

Margaret Hoffman

Director, Environmental Law Division

Texas Natural Resource Conservation Commission

Proposed date of adoption: February 24, 1999

For further information, please call: (512) 239-1970



TITLE 34. PUBLIC FINANCE

Part IV. Employees Retirement System

Chapter 61. Terms and Phrases

34 TAC §61.1

The Employees Retirement System of Texas proposes amendments to §61.1, concerning definitions. The amendment is being proposed in order to number each definition in accordance with *Texas Register* requirements.

William S. Nail, Deputy Executive Director and General Counsel, has determined that for the first five-year period the rule is in effect there will be no fiscal implications for state or local government as a result of enforcing or administering the rule.

Mr. Nail also has determined that for each year of the first five years the rule is in effect the public benefit anticipated as a result of enforcing the rule will be improved organization of the rules. There will be no effect on small businesses. There are no anticipated economic costs to persons who are required to comply with the rule as proposed.

Comments on the proposed rule amendment may be submitted to William S. Nail, Deputy Executive Director and General Counsel, Employees Retirement System of Texas, P.O. Box 13207, Austin, Texas 78711-3207, or e-mail Mr. Nail at wnail@ers.state.tx.us.

The amendment is proposed under Government Code §815.102, which provides authorization for the board to adopt rules necessary to carry out other business of the board.

No other statutes are affected by this proposed amendment.

§ 61.1. Definitions.

The following words and terms, when used in this part, shall have the following meanings, unless the context clearly indicates otherwise.

(1) **Contributory service** - Service for which all necessary deposits were made with and are being held by the System. [State Employees Retirement Act - Texas Civil Statutes, Subtitle C of Title 140B.]

(2) **System** - Employees Retirement System of Texas.

(3) **Trustees, board, or Board of Trustees** - The Board of Trustees of the Employees Retirement System of Texas.

(4) **Year** - The state fiscal year.

This agency hereby certifies that the proposal has been reviewed by legal counsel and found to be within the agency's legal authority to adopt.

Filed with the Office of the Secretary of State, on October 26, 1998.

TRD-9816672

Sheila W. Beckett

Executive Director

Employees Retirement System

Earliest possible date of adoption: December 6, 1998

For further information, please call: (512) 867-3336



Chapter 65. Executive Director

34 TAC §65.7

The Employees Retirement System of Texas proposes an amendment to §65.7, concerning Appointment of Hearing Examiner. The amendment is being proposed in order to update the rule.

Figure: 30 TAC §117.107(d)(2)

Where:

In-stack $\text{NO}_x = \text{NO}_x \text{ (allowable)} \times (1 - \% \text{H}_2\text{O}/100) \times [20.9 - \% \text{O}_2 / (1 - \% \text{H}_2\text{O}/100)] / 5.9$

$\text{NO}_x \text{ (allowable)}$ = the applicable NO_x emission specification of §117.105(f) or (g) of this title (expressed in parts per million by volume NO_x at 15% oxygen (O_2) dry basis)

$\% \text{H}_2\text{O}$ = the volume percent water in the stack gases, as calculated from the manufacturer's data, or other data as approved by the executive director, at MW rating and ISO flow conditions

$\% \text{O}_2$ = the volume percent O_2 in the stack gases on a wet basis, as calculated from the manufacturer's data, or other data as approved by the executive director, at the MW rating and ISO flow conditions.

Figure: 30 TAC §117.207(f)(5)

§117.207(f) OPT-IN UNITS

Equipment Class/Description	Emission Specification
fluid catalytic cracking unit carbon monoxide (CO) boilers	50% NO _x reduction across the inlet of the CO boiler to the outlet of the CO boiler, with the outlet concentration in ppmv converted into lb NO _x /MMBtu of heat input
lean-burn, gas-fired, stationary, reciprocating internal combustion engines rated 150 hp or greater	5.0 g NO _x /hp-hr under all operating conditions
boilers, steam generators, or process heaters with a maximum rated capacity (MRC): 40 MMBtu/hr ≤ MRC < 100 MMBtu/hr	the emission specifications in §117.205(a) of this title for the applicable type of unit
stationary gas turbines with a MW rating: 1.0 MW ≤ MW rating < 10.0 MW	42 ppmv NO _x at 15% O ₂ , dry basis
boilers and industrial furnaces which are regulated as existing facilities by the United States Environmental Protection Agency (EPA) at 40 Code of Federal Regulations (CFR) Part 266, Subpart H	the appropriate emission limitation in §117.205(b) of this title

Figure: 30 TAC §117.207(g)(3)

Where:

In-stack NO_x = $\text{NO}_x(\text{allowable}) \times (1 - \% \text{H}_2\text{O}/100) \times [20.9 - \% \text{O}_2 / (1 - \% \text{H}_2\text{O}/100)] / 5.9$

NO_x (allowable) = the applicable NO_x emission specification of §117.205(c) of this title (expressed in ppmv NO_x at 15% O_2 , dry basis).

$\% \text{H}_2\text{O}$ = the volume percent of water in the stack gases, as calculated from the manufacturer's data, or other data as approved by the executive director, at MW rating and ISO flow conditions.

$\% \text{O}_2$ = the volume percent of O_2 in the stack gases on a wet basis, as calculated from the manufacturer's data, or other data as approved by the executive director, at MW rating and ISO flow conditions.

Figure: 30 TAC §117.223(b)(1)

$$\text{NO}_x \text{ 30-day rolling average emission cap (lb/day)} = \sum_{i=1}^N (H_i \times R_i)$$

Where:

- I = each emission unit in the emission cap
- N = the total number of emission units in the emission cap
- H_i = The actual historical average of the daily heat input for each unit included in the source cap, in million (MM) Btu per day, as certified to the executive director [Texas Natural Resource Conservation Commission (TNRCC)], for a 24 consecutive month period between January 1, 1990 and June 9, 1993, plus one standard deviation of the average daily heat input for that period. All sources included in the source cap shall use the same 24 consecutive month period. If sufficient historical data are not available for this calculation, the executive director may approve another method for calculating H_i .
- R_i = (A) For emission units subject to the federal New Source Review (NSR) requirements of 40 Code of Federal Regulations (CFR) 51.165(a), 40 CFR 51.166, or 40 CFR 52.21, or to the requirements of Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification) which implements these federal requirements, or emission units that have been subject to a New Source Performance Standard requirement of 40 CFR 60 prior to June 9, 1993, R_i is the lowest of the actual emission rate or all applicable federally enforceable emission limitations as of June 9, 1993, in pounds (lb) NO_x per MMBtu, that apply to emission unit I in the absence of trading. All calculations of emission rates shall presume that emission controls in effect on June 9, 1993 are in effect for the two-year period used in calculating the actual heat input.
- (B) For all other emission units, R_i is the lowest of the reasonably available control technology (RACT) limit of §117.205(b)-(d) or §117.207(f) of this title or the best available control technology limit for any unit subject to a permit issued pursuant to Chapter 116 of this title, in lb NO_x /MMBtu, that applies to emission unit I in the absence of trading.

Figure: 30 TAC §117.223(b)(2)

$$\text{NO}_x \text{ maximum daily cap} \quad (\text{lb/day}) = \sum_{i=1}^N (H_{Mi} \times R_i)$$

Where:

I , N , and R_i are defined as in paragraph (1) of this subsection.

H_{mi} = The maximum daily heat input, as certified to the executive director [TNRCC], allowed or possible (whichever is lower) in a 24-hour period.