

The Texas Natural Resource Conservation Commission (commission) adopts amendments to §117.105, concerning Emission Specifications, §117.113, concerning Continuous Demonstration of Compliance, §117.205, concerning Emission Specifications, §117.211, concerning Initial Demonstration of Compliance, §117.213, concerning Continuous Demonstration of Compliance, §117.451, concerning Applicability, §117.510, concerning Compliance Schedule for Utility Electric Generation, §117.520, concerning Compliance Schedule For Commercial, Institutional, and Industrial Combustion Sources, §117.530, concerning Compliance Schedule For Nitric Acid and Adipic Acid Manufacturing Sources, §117.540, concerning Phased Reasonably Available Control Technology (RACT), and §117.601, concerning Gas-Fired Steam Generation.

Sections 117.105, 117.113, 117.213, 117.451, 117.510, 117.520, 117.530, 117.540, and 117.601 are adopted with changes to the proposed text as published in the January 9, 1998, issue of the *Texas Register* (23 TexReg 319). Sections 117.205 and 117.211 are adopted without changes and will not be republished.

#### EXPLANATION OF ADOPTED RULES

The Federal Clean Air Act (FCAA), §182(f), specifies that required measures for major sources of volatile organic compounds (VOCs) must also be applied to major sources of nitrogen oxides (NO<sub>x</sub>) in ozone nonattainment areas, unless a demonstration is made that NO<sub>x</sub> reductions would not contribute to attainment of the ozone standard. One of the measures for existing major sources of VOCs is implementation of reasonably available control technology (RACT) in moderate, serious, and severe ozone nonattainment areas, required by §182(b)(2), (c), and (d). On April 9, 1993, the Texas Air

Control Board adopted revisions to Chapter 117 implementing the federal §182(f) NO<sub>x</sub> requirements in the Houston/Galveston (HGA) and Beaumont/Port Arthur (BPA) ozone nonattainment areas.

On April 12, 1995, the United States Environmental Protection Agency (EPA) approved under §182(f) a temporary exemption from the federally required NO<sub>x</sub> RACT measures in HGA and BPA. The EPA's approval was based on the state's preliminary demonstration, using Urban Airshed Model (UAM) modeling, that NO<sub>x</sub> reductions in HGA and BPA would not lower ozone levels. The temporary exemption allowed more time to conduct UAM modeling, using data from the Coastal Oxidant Assessment for Southeast Texas (COAST), an intensive 1993 field study. These UAM results were judged critical in determining whether, and to what extent, NO<sub>x</sub> reductions are needed to attain the ozone standard. The EPA specified that the temporary §182(f) exemption would expire on December 31, 1996. On May 23, 1997, the EPA extended the exemption to December 31, 1997. This additional year allowed the commission to accommodate improvements in the UAM, using COAST data, and to better substantiate whether NO<sub>x</sub> emission reductions would be required.

In the Fall of 1997, the TNRCC staff completed the COAST modeling analysis of the airshed of the upper Texas Gulf Coast. The study indicated that NO<sub>x</sub> reductions are a necessary step toward the area's attaining the federal air quality standard for ozone. Because of the modeling and the rate-of-progress (ROP) requirement under the FCAA, §182(c)(2), which requires continuing steady reductions of the pollutants that contribute to ozone smog, on November 24, 1997, the commission determined not to seek further federal waivers from the NO<sub>x</sub> reduction requirements of the FCAA for HGA and BPA.

Chapter 117 remained effective during this period of federal exemption. The final compliance date was extended twice, first to May 31, 1997, then to May 31, 1999. Therefore, after the expiration of the temporary federal exemption on December 31, 1997, no additional rulemaking was required to make the NO<sub>x</sub> RACT requirements of Chapter 117 fully effective.

This rulemaking smooths the transition to an ozone control strategy for HGA and BPA which includes NO<sub>x</sub> reduction. The amendments extend the final compliance date of the Chapter 117 NO<sub>x</sub> RACT requirements from May 31, 1999 to November 15, 1999. The extension provides approximately a two-year period to implement NO<sub>x</sub> reductions, from the November 24, 1997, date that the commission decided to implement a NO<sub>x</sub>-based strategy. A two-year period is necessary for industry to purchase, install, and test the emission control equipment and monitoring systems required by Chapter 117.

The other changes to smooth the implementation of the Chapter 117 RACT requirements eliminate the requirement to monitor carbon monoxide (CO) continuously for certain units. While CO emissions in some cases may increase as a result of NO<sub>x</sub> abatement, checking CO emissions periodically will also be an effective, but less expensive, means of avoiding problems with excessive CO.

The adopted revision to §117.105(j) adjusts the compliance averaging period for CO for any electric utility unit which does not use continuous emissions monitors (CEMS) or predictive emissions monitors (PEMS) for CO. The amendments to this subsection also revise the compliance period to an hourly period, necessary for these units since compliance must be determined by manual stack sampling methods. Twenty-four hours of continuous manual sampling is impractical.

The adopted new §117.113(k) adds an option to conduct periodic sampling of CO instead of using CEMS or PEMS for CO for electric utility units. In addition to the initial compliance demonstration for CO, indicator of compliance sampling for CO with a hand-held analyzer is required following certain manual combustion tuning or burner adjustments. This procedure will identify any excessive emission that could occur as a result of an effort to minimize NO<sub>x</sub> emissions. In addition, the acid rain monitoring rules require an annual stack test (relative accuracy test audit) for NO<sub>x</sub> emissions. The concurrent test of CO emissions during this audit will not add to expense and will confirm compliance with the CO limit on a periodic basis.

The adopted revisions to §117.205(e) and §117.211(f)(3) add the option of a 24-hour compliance averaging period for CO for any industrial unit which uses a CEMS or PEMS for CO. A 24-hour compliance period, which is practical for units which use CEMS or PEMS, is somewhat easier to comply with than an hourly period. The adopted revision creates an incentive to use CEMS or PEMS for CO.

The adoption of new §117.213(l) adds an option to conduct periodic sampling of CO from industrial units instead of using CEMS or PEMS for CO. In addition to the initial compliance demonstration for CO, indicator of compliance sampling for CO with a hand-held analyzer is required following certain manual combustion tuning or burner adjustments. This procedure will identify any excessive emission that could occur as a result of an effort to minimize NO<sub>x</sub> emissions. A concurrent test of CO emissions during the annual relative accuracy test audit will confirm compliance on a periodic basis.

The adopted amendments to §§117.451, 117.510, 117.520, 117.530, 117.540, and 117.601 extend the final compliance date to November 15, 1999. As previously discussed in this preamble, this extension creates roughly a two-year implementation period, which industry needs. This period is consistent with the original two-year implementation time for the rules and will serve to minimize the use of the case-specific phased RACT provisions of §117.540. The adopted revisions to §117.510(5) and §117.520(4) will consistently extend to January 15, 2000, the submittal date for 30-day rolling average compliance data from CEMS or PEMS. Various other dates in §117.540 have also been consistently revised.

The commission notes that the adopted final compliance date of November 15, 1999, is 15 days earlier than the compliance date proposed in the January 9, 1998, *Texas Register*. This change was made to assure that the emission reductions will be fully creditable toward 1999 ROP requirements under the FCAA, §182(c)(2). The FCAA, §182(c)(2)(B), requires the 1999 ROP reductions to occur by November 15, 1999.

#### FINAL REGULATORY IMPACT ANALYSIS

The commission has reviewed the rulemaking in light of the regulatory analysis requirements of Texas Government Code (the Code), §2001.0225, and has determined that it is not subject to §2001.0225 because it does not meet the definition of a “major environmental rule” as defined in the Code. The amendments, which ease the implementation of the FCAA, §182(b)(2), (c), (d), and (f), do not meet the definition of “major environmental rule” because the amendments are designed to make the transition to the federally required NO<sub>x</sub> control strategy easier. The NO<sub>x</sub> RACT requirements became effective by operation of federal law upon the December 31, 1997, expiration of the temporary §182(f) exemption.

No comments on the regulatory impact analysis were received.

#### TAKINGS IMPACT ASSESSMENT

The commission has prepared a takings impact assessment for these rules under Texas Government Code, §2007.043. The following is a summary of that assessment. The specific purpose of the amendments is to extend the compliance date for NO<sub>x</sub> RACT requirements and reduce the cost of emission monitoring. As adopted, sources located in the HGA and BPA ozone nonattainment areas of the state will have less expensive monitoring requirements and additional time to comply with the rules. There is no restriction or taking of private real property associated with the adopted amendments.

#### 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 Code of Federal Regulations, Title 40, to protect and enhance air quality in

the coastal area. Adoption of these amendments should result in reductions of ambient NO<sub>x</sub> and ozone concentrations. Therefore, in compliance with 31 TAC §505.22(e), the commission affirms that this rulemaking is consistent with CMP goals and policies.

#### HEARING AND COMMENTERS

A public hearing for this rulemaking was held in Austin on February 9, 1998. A representative of the Southeast Texas Regional Planning Commission (SETRPC) and an equipment vendor, Pavilion Technologies, Inc. (Pavilion) provided oral testimony and written comments at the hearing. Nine commenters submitted written comments on the proposal: Amoco Corporation (Amoco), Entergy Services, Inc. (Entergy), EPA, Houston Lighting & Power (HL&P), an individual, Pavilion, the Southeast Texas Environmental Managers (STEM), SETRPC, and the Texas Chemical Council (TCC). Commenters generally supported the proposal to extend the final compliance date and to reduce the CO monitoring, but recommended revisions to the proposed periodic CO monitoring. The individual opposed the rule proposals. Beyond the proposed revisions, the commenters from the BPA area (SETRPC, STEM, and Entergy) questioned the need for the underlying Chapter 117 NO<sub>x</sub> RACT requirements to apply in BPA.

Amoco, Entergy, EPA, HL&P, and the TCC supported the proposal to extend the final compliance date six months. An individual opposed the extension as an unnecessary delay in implementation, saying that the companies have already prepared for NO<sub>x</sub> controls and have been aware of the need for NO<sub>x</sub> controls for many years.

**The commission appreciates the support for the extension of the final compliance date. The commission disagrees with the comment that an extension is unnecessary. Although initial control plans were submitted by the companies in 1994, the commission's policy from then, until late 1997, was based on modeling results which suggested that NO<sub>x</sub> reductions would not contribute to attainment of the ozone standard. The 1994 planning should still provide a fairly accurate estimate of the reductions required, but source owners now need time to update and optimize their control strategies. The November 24, 1997, commission consideration of the COAST modeling and decision not to pursue further NO<sub>x</sub> exemptions provided industry the formal signal that the RACT reductions would be needed. A formal policy or rule change is often required for the private sector to allocate resources to externalities such as air emissions. Finally, as noted by EPA, establishing a November 15, 1999, compliance date is consistent with the original implementation schedule. This schedule recognizes that approximately two years are required for industry to purchase, install, and test the emission control equipment and monitoring systems required by Chapter 117.**

TCC supported the proposed alternative to CO monitoring. Entergy, HL&P, Amoco, EPA, and Pavilion supported the proposal to provide an alternative to CO monitoring, but suggested revisions to clarify the periodic sampling alternative. The two affected utilities, Entergy and HL&P, recommended clarifying that the periodic CO checks be limited to tuning or adjustments made for the purpose of minimizing NO<sub>x</sub> emissions. Entergy said that performance tuning is occasionally done with boilers that is not related to NO<sub>x</sub> emissions and should not significantly affect CO emissions. Amoco said that it would not be feasible to monitor for CO every time an adjustment is made to burner air; and if this is

the intent, most operators would likely be forced to use a CEMS because of the manpower requirements. Amoco suggested allowing documentation of the observed relationship between oxygen and CO to establish when the allowable level of CO is exceeded, using a permit process. The individual was opposed to the proposal to reduce the monitoring requirements.

**The commission agrees with the utilities' recommended clarification of when CO checks should be performed and has incorporated their suggested language in the electric utility requirements of §117.113(k). The commission also incorporated this language in the industrial source requirements of §117.213(l), since the issue is very similar. This revision addresses Amoco's comment, which is very similar to the utility comment. In response to clarifications suggested by EPA and HL&P, the commission has revised the references in §117.113(k) and §117.213(l) to refer to the EPA test methods and procedures of 40 CFR Part 60. In response to the commenter who opposed reducing the monitoring requirements, the commission believes that the changes will maintain the benefit of CO CEMS, which is to ensure that NO<sub>x</sub> controls do not inadvertently increase CO emissions, while reducing the cost to achieve this goal. Excessive CO emissions tend to be sporadic rather than chronic. The change will allow the affected sources to focus more of their resources on the central goal of the rule, which is to reduce NO<sub>x</sub> emissions and ambient ozone in HGA and BPA.**

Pavilion commented that sampling CO emissions with a portable analyzer after manual combustion tuning or burner adjustment should not be required for units using PEMS that predict NO<sub>x</sub> only.

Instead, the commenter said, when data gathering is performed in order to create the NO<sub>x</sub> PEMS, CO

emissions data should be required to be collected to ensure that CO exceedances will not occur. The PEMS data gathering scheme includes combustion tuning and burner adjustments that are typically done during normal operations. Therefore, if compliance with the CO limit is demonstrated during the entire data gathering scheme, then future measurements with a portable analyzer are not needed for operations within this documented range.

**The commission agrees with the thrust of Pavilion's comments and has further revised the periodic CO sampling requirements in response to those comments. The commission is aware that PEMS may be used to finely adjust, either automatically or manually, boiler process control setpoints to minimize NO<sub>x</sub> emissions. Such tuning to minimize NO<sub>x</sub> would be defeated if manual CO sampling were required each time the control system were adjusted. Pavilion said that CO sampling is needed when burner adjustments are made which reduce NO<sub>x</sub> to levels lower than for which CO emissions data was previously gathered. The commission has adopted this approach to the alternative CO monitoring requirements in §117.113(k)(1)(A) and §117.213(l)(1)(A).**

**Nonetheless, manual adjustments for the purpose of minimizing NO<sub>x</sub> will be performed, in many cases, using either portable NO<sub>x</sub> analyzers or a standard EPA reference method test apparatus to measure the NO<sub>x</sub> emissions. These measurement devices easily accommodate CO measurement. Under these circumstances, the commission has retained the requirement to sample CO, in §117.113(k)(1)(B) and §117.213(l)(1)(B).**

The EPA said that it was unclear what recordkeeping and reporting would be required for periodic CO sampling to demonstrate compliance.

**The recordkeeping sections of Chapter 117 were inadvertently not proposed for revision to address the new alternative. The commission believes that addition of a recordkeeping requirement for periodic CO monitoring should be addressed in future rulemaking to maintain consistency in the placement of requirements and to allow all affected parties the opportunity to comment on the proposed change.**

Pavilion commented that §117.510(3) and (5) contain conflicting dates for submittal of CEMS or PEMS performance evaluation and quality assurance procedures. The commenter recommended that the procedures of §117.510(3) be eliminated.

**The commission agrees with Pavilion. The intended submittal date requirements for the results of the CEMS or PEMS performance evaluation and quality assurance procedures are in §117.510(5) and (6), so the reference to this in §117.510(3) has been deleted.**

SETRPC, STEM, and Entergy proposed that the commission apply to EPA for an FCAA, §182(f) waiver for the BPA area and suspend the Chapter 117 requirements in the BPA area until at least 2007. The commenters stated that the commission's UAM modeling supported the continuation of a waiver from the NO<sub>x</sub> requirements for the BPA area through the year 2007 under the EPA's "overwhelming transport" policy, which recognizes the contribution of transported ozone from upwind areas. They

said that NO<sub>x</sub> controls are a disbenefit through the attainment date and would not contribute to attainment of the ozone national ambient air quality standard (NAAQS). SETRPC said that NO<sub>x</sub> controls would not contribute significantly to attainment of the ozone NAAQS.

**The commission agrees that there is considerable evidence demonstrating a strong influence of HGA upon the air quality in BPA. It also believes that sources in BPA contribute significantly to the air quality in BPA and disagrees with the assessment that sources in the area have little or no remaining role to play in improving the area's or the region's ozone air quality. The evidence, including ambient monitoring data and computer modeling, is more supportive of the view that further NO<sub>x</sub> reductions in BPA are necessary for it, and the regions adjacent to it, to attain or maintain the federal air quality standards for ozone. The commission disagrees that NO<sub>x</sub> reductions in BPA are a disbenefit, based on the COAST modeling. The commission also believes the modeling does not justify a federal NO<sub>x</sub> waiver for the area under the EPA's policy guidance for determining the applicability of NO<sub>x</sub> requirements under §182(f).**

**The information SETRPC submitted regarding monitored ozone exceedances in BPA in 1997 suggests that BPA plays a significant role in ozone formation even when there is transport from HGA. It is not clear that all the exceedances in 1997 were caused by transport from HGA. Although one of these days, March 21, 1997, had the necessary conditions, including strong enough surface winds from HGA to cause ozone transport from that area, the other two days had more stagnant conditions in which BPA itself would have had time to contribute significantly to the ozone formed. Further, on March 21, 1997, the monitor data suggests that the BPA area**

contributed to additional downwind exceedances of the 120 parts per billion (ppb) ozone standard as the pollutants carried further downwind. The monitored peak ozone levels on that date increased from 133 ppb at the Beaumont monitor, on the west side of BPA and nearest Houston, to 169 ppb at the West Orange monitor, on the east side of BPA.

Since BPA is classified as a moderate ozone nonattainment area, the federal NO<sub>x</sub> RACT requirements are applicable, unless a federal waiver can be justified on the basis that NO<sub>x</sub> reductions do not contribute to attainment of the ozone standard. The EPA's guidance for conditions for obtaining a §182(f) waiver are contained in "Guideline for Determining the Applicability of NO<sub>x</sub> Requirements under §182(f)," issued December 1993. The guidance specifies very similar tests for areas within, and not within, an ozone transport region. The test requires using a photochemical grid model (such as the COAST modeling that the commission completed in 1997) to simulate conditions resulting from three emission reduction scenarios: substantial VOC reductions; substantial NO<sub>x</sub> reductions; and both the VOC and NO<sub>x</sub> reductions. If the areawide (or regionwide, for transport regions) maximum one-hour ozone concentration for each day modeled under the first scenario is less than or equal to that from the second and third scenarios for the same day, the test is passed and the §182(f) requirements would not apply. The results from the COAST modeling for the ozone episode of September 8-11, 1993, show the opposite; that is, the areawide maximum one-hour ozone concentrations are greater under the first scenario than under the second and third scenarios. Therefore, the COAST modeling does not support a further EPA NO<sub>x</sub> waiver.

**SETRPC's contention that NO<sub>x</sub> reductions in BPA do not provide “significant” ozone reductions is not an issue, since the test is built on a comparison of the relative effectiveness of NO<sub>x</sub> and VOC reductions, and does not establish a significance level for ozone benefit. The modeling also shows that NO<sub>x</sub> reductions in BPA will reduce ozone more effectively than in HGA, since the initial ozone “disbenefit” of NO<sub>x</sub> reductions is not observed in BPA.**

**The EPA's overwhelming transport policy, if applicable, would enable an extension of the attainment date, but would not allow waiver of the §182(f) NO<sub>x</sub> RACT requirements. The NO<sub>x</sub> RACT requirements are mandatory for moderate ozone nonattainment areas such as BPA under the FCAA, §182(b)(2) and (f). Among other conditions, the EPA overwhelming transport policy requires of a nonattainment area, “adoption of all mandatory control requirements for an area of its classification” (memo from EPA assistant administrator for air and radiation, “Ozone Attainment Dates for Areas Affected by Overwhelming Transport,” September 1, 1994).**

#### **STATUTORY AUTHORITY**

The amendments are adopted under the Texas Health and Safety Code, the Texas Clean Air Act TCAA), §382.012, which requires the commission to prepare and develop a general, comprehensive plan for the proper control of the state’s air, and §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA.

**SUBCHAPTER B: COMBUSTION AT EXISTING MAJOR SOURCES**

**DIVISION 1: UTILITY ELECTRIC GENERATION**

**§117.105, §117.113**

**§117.105. Emission Specifications.**

(a) - (i) (No change.)

(j) No person shall allow the discharge into the atmosphere from any utility boiler, steam generator, or auxiliary steam boiler subject to the NO<sub>x</sub> 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.

(k) - (n) (No change.)

**§117.113. Continuous Demonstration of Compliance.**

(a) - (j) (No change.)

(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<sub>x</sub> emissions:

(A) whenever the resulting NO<sub>x</sub> emissions measured by CEMS or predicted by PEMS are lower than levels for which CO emissions data was previously gathered; and

(B) whenever NO<sub>x</sub> 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<sub>x</sub> and diluent analyzer.

**SUBCHAPTER B: COMBUSTION AT EXISTING MAJOR SOURCES**

**DIVISION 2: COMMERCIAL, INSTITUTIONAL, AND INDUSTRIAL SOURCES**

**§§117.205, 117.211, 117.213**

**STATUTORY AUTHORITY**

The amendments are adopted under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.012, which requires the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air, and §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA.

**§117.205. Emission Specifications.**

(a) - (d) (No change.)

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

(1) for gas or liquid fuel-fired boilers or process heaters, 400 ppmv at 3.0% O<sub>2</sub>, dry basis;

(2) for wood fuel-fired boilers or process heaters, 775 ppmv at 7.0% O<sub>2</sub>, dry basis;

and

(3) for units equipped with continuous emissions monitoring systems (CEMS) or 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.

**§117.211. Initial Demonstration of Compliance.**

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

(f) Initial compliance with the emission specifications of §117.205 or §117.207 of this title for units operating with CEMS in accordance with §117.213(b) of this title, or PEMS in accordance with §117.213(c) of this title, shall be demonstrated using the CEMS or PEMS as follows.

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

(3) For units complying with a CO emission limit, 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.

**§117.213. Continuous Demonstration of Compliance.**

(a) - (k) (No change.)

(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 for the purpose of minimizing NO<sub>x</sub> emissions:

(A) whenever the resulting NO<sub>x</sub> emissions measured by CEMS or predicted by PEMS are lower than levels for which CO emissions data was previously gathered; and

(B) whenever NO<sub>x</sub> 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 an annual relative accuracy test audit of the NO<sub>x</sub> and diluent analyzer.

**SUBCHAPTER C: ACID MANUFACTURING**

**DIVISION 3: NITRIC ACID MANUFACTURING - GENERAL**

**§117.451**

**STATUTORY AUTHORITY**

The amendment is adopted under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.012, which requires the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air, and §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA.

**§117.451. Applicability.**

The emission limitations specified in §117.455 of this title (relating to Emission Specifications) shall apply to all nitric acid production units in the state, with the exception that for nitric acid production units located in applicable ozone nonattainment areas, the emission limitations of §117.405 of this title (relating to Emission Specifications) shall apply after November 15, 1999.

**SUBCHAPTER D: ADMINISTRATIVE PROVISIONS**

**§§117.510, 117.520, 117.530, 117.540**

**STATUTORY AUTHORITY**

The amendments are adopted under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.012, which requires the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air, and §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA.

**§117.510. Compliance Schedule For Utility Electric Generation.**

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, all affected persons shall meet the following compliance schedules and submit written notification to the executive director:

(1) (No change.)

(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) (No change.)

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

(3) install all nitrogen oxides (NO<sub>x</sub>) abatement equipment and implement all NO<sub>x</sub> control techniques no later than November 15, 1999;

(4) for units operating without CEMS or PEMS, 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;

(5) for units operating with CEMS or PEMS and complying with the NO<sub>x</sub> 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 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;

(6) for units operating with CEMS or PEMS and complying with the NO<sub>x</sub> 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;

(7) (No change.)

(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).

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

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). All affected persons shall meet the following compliance schedules and submit written notification to the executive director:

(1) (No change.)

(2) install all NO<sub>x</sub> abatement equipment and implement all NO<sub>x</sub> control techniques no later than November 15, 1999;

(3) for units operating without continuous emissions monitoring system (CEMS) or predictive emissions monitoring systems (PEMS), 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;

(4) for units operating with CEMS or PEMS and complying with the NO<sub>x</sub> 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 the applicable CEMS or PEMS performance evaluation and quality assurance procedures as specified in §117.213 of this title (relating to Continuous Demonstration of Compliance) no later than January 15, 2000;

(5) for units operating with CEMS or PEMS and complying with the NO<sub>x</sub> 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

(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).

**§117.530. Compliance Schedule For Nitric Acid and Adipic Acid Manufacturing Sources.**

All persons affected by the provisions of §§117.301, 117.305, 117.309, 117.311, 117.319, and 117.321 of this title (relating to Adipic Acid Manufacturing) or the provisions of §§117.401, 117.405, 117.409, 117.411, 117.413, 117.419, and 117.421 of this title (relating to Nitric Acid Manufacturing - Ozone Nonattainment Areas) shall be in compliance as soon as practicable, but no later than November 15, 1999 (final compliance date). All affected persons shall meet the following compliance schedules and submit written notification to the executive director:

(1) (No change.)

(2) conduct applicable continuous emissions monitoring system (CEMS) or predictive emissions monitoring systems (PEMS) performance evaluation and quality assurance procedures as specified in §117.313 of this title (relating to Continuous Demonstration of Compliance) and §117.413 of this title (relating to Continuous Demonstration of Compliance); provide previous testing documentation for any claimed test waiver as allowed by §117.311(d) of this title (relating to Initial Demonstration of Compliance) or §117.411(d) of this title (relating to Initial Demonstration of Compliance); and conduct applicable initial demonstration of compliance testing as specified in

§117.311 and §117.411 of this title, by:

(A) (No change.)

(B) no later than November 15, 1999, for affected facilities performing process modification or installation of a CEMS or PEMS device as part of the control plan specified in §117.309 and §117.409 of this title;

(3) (No change.)

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

The owner or operator 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 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 commission and a copy to the EPA regional office in Dallas which will demonstrate all of the following:

(A) (No change.)

(B) compliance by November 15, 1999, is impracticable due to the unavailability of nitrogen oxides (NO<sub>x</sub>) abatement equipment, engineering services, or construction labor; system unreliability; manufacturing unreliability; equipment unreliability; or other technological and economic factors as the commission determines are appropriate;

(C) (No change.)

(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<sub>x</sub> 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) (No change.)

(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) (No change.)

(iii) specific reasons why an outage for the purpose of installing NO<sub>x</sub> 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) - (ii) (No change.)

(iii) specific reasons why an outage for the purpose of installing NO<sub>x</sub> 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<sub>x</sub> control equipment on that unit, the following information shall be included in the petition for phased RACT:

(i) - (iv) (No change.)

(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<sub>x</sub> abatement equipment, engineering services, or construction labor necessary to comply by November 15, 1999, and the cost of

obtaining the NO<sub>x</sub> 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<sub>x</sub> 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) (No change.)

(4) (No change.)

(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) (No change.)

(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) - (10) (No change.)

## **SUBCHAPTER E: GAS-FIRED STEAM GENERATION**

### **§117.601**

#### **STATUTORY AUTHORITY**

The amendment is adopted under the Texas Health and Safety Code, the Texas Clean Air Act (TCAA), §382.012, which requires the commission to prepare and develop a general, comprehensive plan for the proper control of the state's air, and §382.017, which authorizes the commission to adopt rules consistent with the policy and purposes of the TCAA.

#### **§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 §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 November 15, 1999.

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