Title 33

ENVIRONMENTAL QUALITY

Part III. Air

Chapter 22. Control of Emissions of Nitrogen Oxides (NO_x)

§2201. Affected Facilities in the Baton Rouge Nonattainment Area and the Region of Influence

A. – A.1. …

2. The provisions of this Chapter shall apply during the *ozone season* ~~(May 1 to September 30)~~, as defined in Subsection B of this Section, of each year.

3. …

B. Definitions. Unless specifically defined in this Subsection or in LAC 33:III.111 or 502, the words, terms, and abbreviations in this Chapter shall have the meanings commonly used in the field of air pollution control. For purposes of this Chapter only, the following definitions shall supersede any definitions in LAC 33:III.111 or 502.

* * *

Affected Facility—any facility within the Baton Rouge Nonattainment Area with one or more affected point sources that collectively emit or have the potential to emit 25 tons or more per year of NO_x, unless exempted in Subsection C of this Section, or any facility within the Region of Influence with one or more affected point sources that collectively emit or have the potential to emit 50 tons or more per year of NO_x, unless exempted in Subsection C of this Section. Exempt sources in a facility shall not be included in the determination of whether it is an affected facility.

* * *

Low Ozone Season Capacity Factor Boiler or Process Heater/Furnace—a boiler or process heater/furnace in the Baton Rouge Nonattainment Area with a maximum rated capacity greater than or equal to 40 MMBtu/hour and an ozone season average heat input less than or equal to ~~0.46 x 10^{11}~~12.5 MMBtu/hour, using a 30-day rolling average; or in the Region of Influence with a maximum rated capacity greater than or equal to 80 MMBtu/hour and an ozone season average heat input less than or equal to ~~0.92 x 10^{11}~~25 MMBtu/hour, using a 30-day rolling average.

* * *

Ozone Season—except as provided in LAC 33:III.2202, the period May 1 to September 30, inclusive~~ly~~, of each year.

* * *

Thirty-Day (30-Day) Rolling Average—an average, calculated ~~for each~~ daily ~~that fuel is combusted~~, of all hourly ~~emissions~~ data for the ~~preceding~~last 30 days ~~that fuel is combusted in~~ for an affected point source. At the beginning of each ozone season, use one of the following methods to calculate the initial 30-day averages:

a. calculate and record the average of all hourly readings taken during the first day of the ozone season for day one, then the average of all hourly readings taken during the first and second days for day two, and so on until the first full 30-day average falling entirely within the ozone season is reached;

b. calculate and record a 30-day rolling average for day one of the ozone season using the hourly readings from that day and the previous 29 calendar days, for the second day of the ozone season using the readings from the first two ozone season days and the preceding 28 calendar days, and so on until the first full 30-day average falling entirely within

the current ozone season is reached; or

c. calculate and record a 30-day rolling average for day one of the ozone season using the hourly readings from that day and the last 29 days of the previous ozone season, for the second day of the ozone season using the readings from the first two current ozone season days and the last 28 days of the previous ozone season, and so on until the first full 30-day average falling entirely within the current ozone season is reached.

* * *

C. Exemptions. The following categories of equipment or processes located at an affected facility within the Baton Rouge Nonattainment Area or the Region of Influence are exempted from the provisions of this Chapter:

1. – 3.b. …

4. *low ozone season capacity factor boilers and process heater/furnaces*, as defined in Subsection B of this Section, in accordance with Paragraph H.11 of this Section;

5. – 5.g. …

6. any point source, in accordance with Paragraph H.12 of this Section, that operates less than ~~400~~3 hours per day, using a 30-day rolling average, during the ozone season;

7. – 14. …

15. any affected point source that is required to meet a more stringent state or federal NO_x emission limitation, whether by regulation or permit. ~~(~~In this case, the monitoring, reporting, and recordkeeping requirements shall be in accordance with the more stringent regulation or permit and not this Chapter. If the applicable regulation or permit does not specify monitoring, reporting, and recordkeeping requirements, the provisions of Subsections H and I of this Section~~Chapter~~ shall apply.~~)~~;

16. – 17. …

18. any affected point source firing ~~Number 6 F~~fuel ~~O~~oil during a period of emergency and approved by the administrative authority;

19. – 20. …

D. Emission Factors

1. ~~Except as provided in LAC 33:III.2202, t~~The following tables list NO_x emission factors that shall apply to affected point sources located at affected facilities in the Baton Rouge Nonattainment Area or the Region of Influence.

Table D-1A NO_x Emission Factors for Sources in the Baton Rouge Nonattainment Area		
Category	Maximum Rated Capacity	NO_x Emission Factor [a]
Electric Power Generating System Boilers:		
Coal-fired	>/= 40 to <80 MMBtu/Hour	0.50 pound/MMBtu
	>/= 80 MMBtu/Hour	0.21 pound/MMBtu
Number 6 Fuel Oil-fired	>/= 40 to <80 MMBtu/Hour	0.30 pound/MMBtu
	>/= 80 MMBtu/Hour	0.18 pound/MMBtu
All Others (gaseous or liquid)	>/= 40 to <80 MMBtu/Hour	0.20 pound/MMBtu
	>/= 80 MMBtu/Hour	0.10 pound/MMBtu
Industrial Boilers:		
~~Industrial Boilers~~ All Fuels	>/= 40 to <80 MMBtu/Hour	0.20 pound/MMBtu
	>/= 80 MMBtu/Hour	0.10 pound/MMBtu

Table D-1A $\underline{NO_x}$ Emission Factors for Sources in the Baton Rouge Nonattainment Area		
Category	Maximum Rated Capacity	NO_x Emission Factor [a]
Process Heater/Furnaces:		
Ammonia Reformers	>/= 40 to <80 MMBtu/Hour	0.30 pound/MMBtu
	>/= 80 MMBtu/Hour	0.23 pound/MMBtu
All Others	>/= 40 to <80 MMBtu/Hour	0.18 pound/MMBtu
	>/= 80 MMBtu/Hour	0.08 pound/MMBtu
Stationary Gas Turbines:		
Peaking Service, Fuel Oil-fired	>/= 5 to <10 MW	0.37 pound/MMBtu
	>/= 10 MW	0.30 pound/MMBtu
Peaking Service, Gas-fired	>/= 5 to <10 MW	0.27 pound/MMBtu
	>/= 10 MW	0.20 pound/MMBtu
All Others	>/= 5 to <10 MW	0.24 pound/MMBtu[b]
	>/= 10 MW	0.16 pound/MMBtu[c]
Stationary Internal Combustion Engines:		
Lean-burn	>/= 150 to <320 Hp	10 g/Hp-hour
	>/= 320 Hp	4 g/Hp-hour
Rich-burn	>/= 150 to <300 Hp	2 g/Hp-hour
	>/= 300 Hp	2 g/Hp-hour

[a] based on the higher heating value of the fuel

[b] equivalent to 65 ppmv (15 percent O_2, dry basis) with an F factor of 8710 dscf/MMBtu

[c] equivalent to 43 ppmv (15 percent O_2, dry basis) with an F factor of 8710 dscf/MMBtu

Table D-1B $\underline{NO_x}$ Emission Factors for Sources in the Region of Influence		
Category	Maximum Rated Capacity	NO_x Emission Factor [a]
Electric Power Generating System Boilers:		
Coal-fired	>/= 80 MMBtu/Hour	0.21 pound/MMBtu
Number 6 Fuel Oil-fired	>/= 80 MMBtu/Hour	0.18 pound/MMBtu
All Others (gaseous or liquid)	>/= 80 MMBtu/Hour	0.10 pound/MMBtu
Industrial Boilers:		
~~Industrial Boilers~~ All Fuels	>/= 80 MMBtu/Hour	0.10 pound/MMBtu
Process Heater/Furnaces:		
Ammonia Reformers	>/= 80 MMBtu/Hour	0.23 pound/MMBtu
All Others	>/= 80 MMBtu/Hour	0.08 pound/MMBtu
Stationary Gas Turbines:		
Peaking Service, Fuel Oil-fired	>/= 10 MW	0.30 pound/MMBtu
Peaking Service, Gas-fired	>/= 10 MW	0.20 pound/MMBtu

Table D-1B $\underline{NO_x}$ Emission Factors for Sources in the Region of Influence		
Category	Maximum Rated Capacity	NO_x Emission Factor [a]
All Others	>/= 10 MW	0.16 pound/MMBtu[b]
Stationary Internal Combustion Engines:		
Lean-burn	>/= 1500 Hp	4 g/Hp-hour
Rich-burn	>/= 300 Hp	2 g/Hp-hour

[a] all factors are based on the higher heating value of the fuel

[b] equivalent to 43 ppmv (15 percent O_2, dry basis) with an F factor of 8710 dscf/MMBtu

2. – 8. …

9. On a day that is designated as an Ozone Action Day by the department, a facility shall not fire an affected point source with Number 6 ~~F~~fuel ~~O~~oil or perform testing of emergency and training combustion units without prior approval of the administrative authority. If a facility has received approval from the administrative authority for a plan to use Number 6 fuel oil, this is considered prior approval for purposes of this Paragraph.

E. – E.1.c.ii. …

d. An owner or operator that chooses to use the provisions of Clause E.1.b.i or E.1.c.i of this Section to demonstrate compliance in an averaging plan shall include in the submitted plan a description of the actions that will be taken if any under-controlled unit is operated at more than 10 percent above its averaging capacity (HI_i in Subparagraph E.1.a of this Section). Such actions may include a comparison of the total current emissions from all units in the averaging plan to the total emissions that would result if the units in the plan were operated in

accordance with Subsection D of this Section, other reviews, reporting, and/or mitigation actions. If the department determines that the actions are not adequate to prevent an increase of emissions over the total emissions that would result if the units were operated in accordance with Subsection D of this Section, the department shall require that the averaging plan and/or the action plan be revised or shall disallow the use of the averaging plan.

e. …

f. NO_x reductions accomplished after 1997 through curtailments in capacity of a point source with a permit revision or by permanently shutting down the point source may be included in the averaging plan. In order to include a unit with curtailed capacity or that has been permanently shut down in the averaging plan, the old averaging capacity, determined from the average of the two ozone seasons prior to the capacity curtailment or shutdown, or such other two-year period as~~approved by~~ the department may approve, shall be used to calculate the unit's contribution to the term FL. The new averaging capacity, determined from the enforceable permit revision, shall be multiplied by the owner-assigned limit to calculate the contribution of the curtailed unit to the cumulative emission factor for the averaging group. For a shut down source, the contribution to the cumulative emission factor shall be zero.

g. NO_x reductions from post 1997 modifications to exempted point sources, as defined in Subsection C of this Section, may be used in a facility-wide averaging plan. If a unit exempted in Subsection C of this Section is included in an averaging plan, the term R_{li} in Equation E-1 shall be established, in accordance with Subsection G of this Section, from a stack test or other determination of emissions approved by the department that was performed before the NO_x reduction project was implemented, and the term R_{ai} shall be established from the owner-assigned emission factor in accordance with Subparagraph E.1.a of this Section. For the

case of a point source exempted by Paragraph C.15 of this Section, if the permit limits were established after 1997 and were not required by a state or federal regulation, the source may be included in an averaging plan, with the term R_{li} taken from Table D-1A or D-1B in Paragraph D.1 of this Section.

E.1.h. – G.4. …

5. Compliance with the emission specifications of Subsection D or E of this Section for affected point sources operating without CEMS or PEMS shall be demonstrated while operating at the maximum rated capacity, or as near thereto as practicable. The stack tests shall be performed according to emissions testing guidelines located on the department website under Air Quality Assessment/Emission Testing Program~~in the technology section~~. Three minimum ~~one~~1-hour tests, or three minimum 20-minute tests for turbines, shall be performed and the following methods from 40 CFR Part 60, Appendix A shall be used:

G.5.a. – H.1.b.v. …

vi. alternatively to Clauses H.1.b.ii-iv of this Section, the owner or operator may request approval from the administrator for an alternative monitoring plan that uses a fuel-oxygen operating window to demonstrate continuous compliance of NO_x and CO. In order to continuously demonstrate compliance with the NO_x limits of Subsection D or E of this Section, the owner or operator shall implement procedures to operate the boiler on or inside the fuel and oxygen lines that define the operating window. The corners of the window shall be established during the initial compliance test required by Subsection G of this Section or similar testing at another time. The details for use of an alternative monitoring plan shall be submitted in the permit application or in the optional compliance plan described in Paragraph F.7 of this Section. The plan shall become part of the facility permit and shall be federally

enforceable.

2. – 2.b.v. …

vi. alternatively to Clauses H.2.b.ii-iv of this Section, the owner or operator may request approval from the department for an alternative monitoring plan that uses a fuel-oxygen operating window, or other system, to demonstrate continuous compliance of NO_x and CO. In order to continuously demonstrate compliance with the NO_x limits of Subsection D or E of this Section, the owner or operator shall implement procedures to operate the process heater/furnace on or inside the fuel and oxygen lines that define the operating window. The corners of the window shall be established during the initial compliance test required by Subsection G of this Section or similar testing at another time. The details for use of an alternative monitoring plan shall be submitted in the permit application or in the optional compliance plan described in Paragraph F.7 of this Section. The plan shall become part of the facility permit and shall be federally enforceable.

3. – 9.b. …

10. All affected point sources that rely on periodic stack testing to demonstrate continuous compliance and use a catalyst to control NO_x emissions shall be tested to show compliance with the emission factors of Subsection D or E of~~f~~ this Section after each occurrence of catalyst replacement. Portable analyzers shall be acceptable for this check. Documentation shall be maintained on-site, if practical, of the date, the person doing the test, and the test results. Documentation shall be made available for inspection upon request.

11. The owner or operator of any *low ozone season capacity factor boiler or process heater/furnace*, as defined in Subsection B of this Section, for which an exemption is granted shall install, calibrate, and maintain a totalizing fuel meter, with instrumentation

approved by the department, and keep a record of the fuel input for each affected point source during each ozone season. If the average Btu-per-ozone season-hour limit is exceeded, ~~T~~the owner or operator of any boiler or process heater/furnace covered under this exemption shall ~~notify~~include the noncompliance in the written report that is due in accordance with Paragraph I.2 of this Section~~the administrative authority within seven days if the Btu-per-ozone season limit is exceeded~~. If the average Btu-per-ozone season-hour limit is exceeded, the exemption shall be permanently withdrawn. Within 90 days after receipt of notification from the administrative authority of the loss of the exemption, the owner or operator shall submit a permit modification detailing how ~~to~~the facility will meet the applicable emission factor as soon as possible, but no later than 24 months, after exceeding the ~~Btu-per-~~ozone season limit. Included with this permit modification, the owner or operator shall submit a schedule of increments of progress for the installation of the required control equipment. This schedule shall be subject to the review and approval of the department.

12. The owner or operator of any affected point source that is granted an exemption in accordance with Paragraph C.6 of this Section~~for operating less than 400 hours during the ozone season~~ shall install, calibrate, and maintain a nonresettable, elapsed run-time meter to record the operating time in order to demonstrate compliance during the ozone season. If the average operating hours-per-day limit is exceeded ~~T~~the owner or operator shall include the noncompliance in the written report that is due in accordance with Paragraph I.2 of this Section~~notify the administrative authority within seven days if the hours-per-ozone season limit is exceeded~~. If the average operating hours-per-day~~ozone season~~ limit is exceeded, the exemption shall be permanently withdrawn. Within 90 days after receipt of notification from the administrative authority of the loss of the exemption, the owner or operator shall submit a permit

modification detailing how the facility will~~to~~ meet the applicable emission factor as soon as possible, but no later than 24 months, after exceeding the limit. Included with this permit modification, the owner or operator shall submit a schedule of increments of progress for the installation and operation of the required control equipment. This schedule shall be subject to the review and approval of the department.

13. Elapsed run-time and fuel meters, oxygen, diluents, and CO monitors, and other such instrumentation required by this Section shall be calibrated~~performance tested~~ according to the manufacturer~~vendor~~'s recommendations, but not less frequently than once per year. ~~Testing r~~Records shall be maintained according to Paragraph I.3 of this Section.

14. Any unit with a permit requirement or applicable regulation that requires more stringent testing than this Chapter requires shall comply with the permit requirements or applicable regulation rather than this Chapter.

15. Continuous demonstration of compliance with fuel, oxygen concentration, and other parameter limits shall be on a 30-day rolling average basis.

I. Notification, Recordkeeping, and Reporting Requirements

1. …

2. The owner or operator of an affected point source granted an exemption in accordance with any part of Subsection C of this Section or required to demonstrate continuous compliance in accordance with Subsection H of this Section shall submit a written report within 90 days of the end of each ~~quarter~~ozone season to the administrative authority of~~for~~ any noncompliance of the applicable ~~emission~~ limitations of Subsection D or E of this Section. The required information may be included in reports provided to the administrative authority to meet other requirements, so long as the report meets the deadlines and content requirements of this

Paragraph. The report shall include the following information:

a. a description of the noncompliance;

b. a statement of the cause of the noncompliance;

c. the anticipated time that the noncompliance is expected to continue or, if it has been corrected, the duration of the period of noncompliance; and

d. the steps taken to prevent recurrence of the noncompliance.

I.3. – J.1. …

2. ~~Except as provided in LAC 33:III.2202, t~~The owner or operator shall complete all initial compliance testing, specified by Subsection G of this Section, for equipment modified with NO_x reduction controls or a NO_x monitoring system to meet the provisions of this Chapter within 60 days of achieving normal production rate or after the end of the shake down period, but in no event later than 180 days after initial start-up. Required testing to demonstrate the performance of existing, unmodified equipment shall be completed in a timely manner, but by no later than November 1, 2005.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 28:290 (February 2002), repromulgated LR 28:451 (March 2002), amended LR 28:1578 (July 2002), LR 30:748 (April 2004), LR 30:1170 (June 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2441 (October 2005), LR 33:2088 (October 2007), LR 34:71 (January 2008), LR 36:60 (January 2010).

§2202. Contingency Plan

A. This Section shall become effective only in the event that the United States

Environmental Protection Agency (EPA) determines and notifies the department in accordance with Section ~~181(b)(2)~~175A(d) of the Clean Air Act as amended [42 USC 7511(b)(2)] that the Baton Rouge ~~Nonattainment A~~area has ~~failed to attain the 1-hour~~violated the 8-hour ozone National Ambient Air Quality Standard (NAAQS)~~, by its appropriate attainment deadline (November 15, 2005, for areas classified as "severe") or, following application for extension by the state, any extension of the deadline approved by the EPA in accordance with Section 181(a)(5) of the Clean Air Act as amended [42 USC 7511(a)(5)]~~ and that the department must put this contingency plan into effect.

B. ~~Emission Factors. The emission factors for the sources listed below in Table B-1 shall supersede the factors for the like sources in Table D-1A of LAC 33:III.2201.D.1. All requirements of LAC 33:III.2201 shall remain applicable to such sources, except as superseded by this Section~~Definition of *Ozone Season*. In the event of notification from EPA in accordance with Subsection A of this Section, the definition of *ozone season* in LAC 33:III.2201.B will be the period April 1 to October 31, inclusive, of each year.

~~*Table B-1*~~

~~*Contingency Plan Emission Factors*~~

~~Category~~	~~Maximum Rated Capacity~~	~~NO_x Emission Factor [a]~~
~~Industrial Boilers~~	~~>/= 80 MMBtu/Hour~~	~~0.08 pound/MMBtu~~

Table B-1 *Contingency Plan Emission Factors*		
Category	Maximum Rated Capacity	NO_x Emission Factor [a]
Stationary Gas Turbines (except peaking)	>/= 10 MW	0.092 pound/MMBtu

[a] based on the higher heating value of the fuel

C. Effective Dates.

1. An owner or operator of a source subject to an emission factor provided in Table B-1 of Subsection B of this Sectionthis Chapter shall comply with this Sectionsuch emission factor as expeditiously as possible, but not later than the first day of the next ozone seasontwo years after determination and notification by the EPA in accordance with Subsection A of this Section.

2. Required testing to demonstrate the performance of existing, unmodified equipment shall be completed in a timely manner, but by no later than 30 months after determination and notification by the EPA in accordance with Subsection A of this Section.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Environmental Assessment, Environmental Planning Division, LR 30:1170 (June 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 36:63 (January 2010).