# Chapter 145: NOx CONTROL PROGRAM

SUMMARY: This Chapter establishes year-round control requirements for certain large stationary sources of nitrogen oxides (NOx) beginning on May 1, 2003.

**1. Applicability.** This Chapter applies to any owner or operator of an affected source, as defined by this Chapter, located within the Ozone Transport Region and in a county that has not received a waiver of NOx control requirements pursuant to section 182(f) of the 1990 Clean Air Act Amendments.

**2. Definitions**

**A.**  **Affected source.** "Affected source” means an electric generating unit, resource recovery unit, fossil fuel fired boiler, or indirect heat exchanger with a maximum heat input capacity of 250 mm Btu/hour or more constructed before 1995.

**B. Electric generating unit.** "Electric generating unit" means any fossil fuel fired combustion unit of 25 MW electric generating capacity, or greater, which provides electricity for sale or use.

**C. Fossil fuel.** "Fossil fuel" means natural gas, petroleum, coal or any form of solid, liquid, or gaseous fuel derived wholly or in part from such material.

**D. Fossil fuel fired.** "Fossil fuel fired" means a unit that combusts fossil fuel either alone or in combination with any other fuel, where the fossil fuel combusted comprises 51% or greater of the annual (calendar year basis) heat input on a Btu basis.

**E. Heat input.** "Heat input" means heat derived from the combustion of fuel in an affected source and does not include the heat derived from preheated combustion air, recirculated flue gas, or exhaust from other sources.

**F. Indirect heat exchanger.** "Indirect heat exchanger" means combustion equipment in which the flame and/or products of combustion are separated from any contact with the principal material in the process by metallic or refractory walls, which includes, but is not limited to, steam boilers, vaporizers, melting pots, heat exchangers, column reboilers, fractioning column feed preheaters, reactor feed preheaters, fuel-fired reactors such as steam hydrocarbon reformer heaters and pyrolisis heaters.

**G. Maximum heat input capacity.** "Maximum heat input capacity" means the maximum heat value an affected source can combust on a steady-state basis as determined by the physical and operational design and characteristics of the affected source. Maximum heat input capacity is expressed in millions of British Thermal Units (MMBtu) per unit of time. Maximum heat input capacity is the product of the gross caloric value (higher heating value) of the fuel (expressed in Btu/pound or Btu/gal or Btu/scf) multiplied by the maximum fuel feed rate for the combustion device (expressed in mass of fuel/time).

**H. Ninety-day rolling average.** “Ninety-day rolling average” or “90-day rolling average” means the total mass of emissions over a 90-day period divided by the total heat input over a 90- day period. Each day will establish a new 90-day rolling average period.

**I. Resource recovery unit.** "Resource recovery unit" means any unit where municipal wastes are incinerated to produce usable energy.

**J. Selective non-catalytic reduction.** “Selective non-catalytic reduction” or “SNCR” means a control technology utilizing ammonia or urea to reduce nitrogen oxides to elemental nitrogen (N2) and oxygen (O2) without the use of a catalyst.

**3. Standards**

**A. Control Technology Requirements.** No later than May 1, 2003, any owner or operator of an affected source shall install, operate, and maintain NOx control technology on each unit. The affected source shall demonstrate that it sought NOx control technology that achieves the emission limitations in Subsection 3(B) of this Chapter. The Commissioner will approve the installation, operation, and maintenance of selective non-catalytic reduction (SNCR) technology, or an alternative control technology determined to achieve NOx reductions and air quality benefits essentially equivalent to what would be achieved if SNCR were applied to each unit.

**B. Emission Limitations**

(1) Beginning January 1, 2005, the NOx emission rate for electric generating units with a maximum heat input capacity of less than 750 million Btu per hour must not exceed 0.22 pounds per million Btu on a 90-day rolling average basis.

(2) Beginning January 1, 2005, the NOx emission rate for electric generating units with a maximum heat input capacity of 750 million Btu per hour or greater must not exceed 0.15 pounds per million Btu on a 90-day rolling average basis.

(3) Beginning January 1, 2005, the NOx emission rate for fossil fuel fired indirect heat exchangers, boilers, and resource recovery units with a maximum heat input capacity greater than 250 million Btu per hour must not exceed 0.20 pounds per million Btu on a 90-day rolling average basis.

**C. Emission Averaging**. For the purpose of demonstrating compliance with this Chapter, any owner or operator with more than one affected source with a maximum heat input capacity of 750 million Btu per hour or greater at a facility may average the emissions between such units to meet the emission limitations in Subsection 3(B)(2) of this Chapter on a 90-day rolling average basis. Any owner or operator with more than one affected source with a maximum heat input capacity less than 750 million Btu per hour may average the emissions between such units to meet the emissions limitations in Subsection 3(B)(1) of this Chapter. Averaging must be done by dividing the sum of actual emissions from each affected source over the 90-day period by the sum of the heat inputs from the units over the 90-day period. Continuous emission monitoring systems that satisfy the requirements of 06‑096 Code of Maine Rules (C.M.R.) ch. 117 must be employed to allow the use of this provision.

**D. Exemptions.** Minor sources or units that can be limited to the minor source threshold as defined in 06-096 C.M.R. ch. 100 of the Department’s rules are exempt from the requirements of this Chapter.

**4. Operating License Requirements.** The operating license for each facility which includes an affected source must be amended to include an emission control plan and require compliance with all applicable requirements and provisions of this Chapter through the issuance of an initial operating license, minor modification, or major modification, as applicable, pursuant to 06‑096 C.M.R. ch. 115 and 06-096 C.M.R. ch. 140 of the Department's rules.

**5. Emission Monitoring.** Any owner or operator of an affected source shall comply with the following, as applicable:

**A.** NOx emissions from each affected source must be monitored in accordance with the requirements in 40 Code of Federal Regulations (C.F.R.) Part 75, Subpart B.

**B.** Any person who owns or operates an affected source shall submit to the Department for review and approval, a monitoring plan as part of the emission control plan required in Section 4 of this Chapter. At a minimum, the monitoring plan must detail the monitoring method(s) that will be used at the affected source and meet the requirements established in this section.

**C.** Affected sources which commence operation after May 1, 2003, shall submit a monitoring plan, and install, operate, and certify the required emission monitoring systems within the shorter of 45 unit operating days or 180 calendar days.

**D.** During a period when valid data is not being recorded by a monitoring system approved under this Chapter, the missing or invalid data must be replaced with default data in accordance with the provisions of 40 C.F.R. Part 75, Subpart D.

**6. Record Keeping.** The owner or operator of anaffected source shall keep all measurements, data, reports, and other information required by this Chapter for five years, or any other period consistent with the source’s operating license.

**7. Reporting.**

**A. Quarterly Emissions and Operating Reports.** Any person who owns or operates an affected source shall submit to the Department all emissions and operating information for each calendar quarter of each year in accordance with the standards specified in 40 C.F.R. Part 75, Subpart G, as applicable. The submission must be in an electronic format that meets the requirements of the Environmental Protection Agency’s (EPA's) Electronic Data Reporting (EDR) conversion, or in any other suitable format as approved by the Department and EPA.

**B.** Any person who owns or operates an affected source subject to 40 C.F.R. Part 75 shall submit this data to EPA as part of the quarterly reports submitted to EPA to comply with 40 C.F.R. Part 75.

**C.** Any person who owns or operates an affected source not subject to 40 C.F.R. Part 75 shall submit the quarterly reports to the Department within 30 days after the end of each calendar quarter for which they must report under this Section.

**D.** If an affected source is permanently or temporarily shut down, the Department may grant an exemption from the requirements of Sections 5, 6, 7, and 8 of this Chapter upon written request demonstrating to the Department’s satisfaction the shutdown is part of an approved emission control plan or approved under 06-096 C.M.R. chs. 115 or 140 of the Department's rules. The request must identify the affected source being shut down, and the date of the shutdown. Department approval of the request for shutdown exemption may contain conditions as deemed necessary by the Department.

**8. Compliance Certification.**

**A.** Any person who owns or operates an affected source shall submit to the Department a compliance certification in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the affected source’s emissions are correctly and fully monitored. The certification must state that the monitoring data submitted were recorded in accordance with the applicable requirements of this Chapter and 40 C.F.R. Part 75, including the quality assurance procedures and specifications.

**B.** The Department may verify compliance by whatever means necessary, including, but not limited to:

(1) Inspection of a unit's operating records;

(2) Testing emission monitoring devices; and

(3) Requiring the person who owns, leases, operates, or controls an affected source to conduct emissions testing under the observation of the Department.

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AUTHORITY: 38 M.R.S. Section 585-A.

EFFECTIVE DATE: July 22, 2001

AMENDED: July 8, 2024 – filing 2024-158

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