

26.11.09 Control of Fuel-Burning Equipment, Stationary Internal Combustion Engines, and Certain Fuel-Burning Installations

Authority: Environment Article, §§1-101, 1-404, 2-101—2-103, 2-301—2-303, 10-102, and 10-103, Annotated Code of Maryland

26.11.09.08

.08 Control of NOx Emissions for Major Stationary Sources.

A. Applicability.

(1) This regulation applies to a person who owns or operates an installation that causes emissions of NOx and is located at premises that have total potential to emit:

(a) 25 tons or more per year of NOx and is located in Baltimore City, or Anne Arundel, Baltimore, Calvert, Carroll, Cecil, Charles, Frederick, Harford, Howard, Montgomery, or Prince George's counties; or

(b) 100 tons or more per year of NOx and is located in Allegany, Caroline, Dorchester, Garrett, Kent, Queen Anne's, St. Mary's, Somerset, Talbot, Washington, Wicomico, or Worcester counties.

(2) Except as otherwise indicated, the emissions standards and requirements in this regulation apply at all times.

B. General Requirements and Conditions.

(1) Emission Standards and Requirements.

(a) A person who owns or operates an installation that causes NOx emissions subject to this regulation is in compliance with this regulation if the person establishes compliance with the emissions standards in §B(1)(c) of this regulation.

(b) Any other person subject to this regulation shall comply with the applicable source specific requirements in §§C—J of this regulation.

(c) Emission Standards in Pounds of NOx per Million Btu of heat input.

Fuel	Tangential-Fired	Wall-Fired
Gas only	0.20	0.20
Gas/Oil	0.25	0.25
Coal (dry bottom)	0.38	0.38

Coal (wet bottom) 1.00 1.00

(2) Demonstration of Compliance.

(a) A person subject to a NO_x emission standard in this regulation shall demonstrate compliance as follows:

(i) For installations equipped with a CEM, compliance with the NO_x emissions standards in this regulation shall be established using CEM data; or

(ii) For all other installations, compliance with the NO_x emissions standards in this regulation shall be established by stack tests using Method 07 of the test methods referenced in COMAR 26.11.01.04C(1) or other test methods approved by the Department and the EPA.

(b) CEMs shall be certified in accordance with 40 CFR Part 60, Appendix B, or Part 75, Appendix A.

(c) CEMs shall meet the quality assurance criteria in 40 CFR Part 60, Appendix F, or, for sources subject to Title IV of the Clean Air Act (Acid Rain), the quality assurance criteria in 40 CFR Part 75, Appendix B.

(d) Except as otherwise established by the Department and approved by the EPA, for a person who establishes compliance with the NO_x emissions standards in this regulation using a CEM, compliance shall be determined as 30-day rolling averages.

(e) For a person who establishes compliance using a stack test, compliance shall be determined as averages of the stack test duration.

(3) Alternative Standard.

(a) A person who is subject to a source specific NO_x emission standard under this regulation may propose an alternative standard for approval by the Department. Approval by the EPA is also required for an alternative standard approved by the Department.

(b) A person who proposes an alternative emission standard for approval shall provide the following information to the Department:

(i) Uncontrolled NO_x emissions for the installation established with a CEM, or stack tests obtained during steady state operation;

(ii) Stack tests or other data from an existing similar installation demonstrating that the applicable standard cannot be met;

(iii) Identification of all proposed combustion modifications, fuel conversions, or other equipment or process modifications proposed for implementation to meet the alternative standard; and

(iv) Equipment vendor costs from other facilities and other information that demonstrates, to the satisfaction of the Department, that the cost of complying with the emission standard in this regulation is unreasonable as compared to the cost of meeting an alternative standard.

(4) Emissions Averaging.

(a) Instead of meeting the source specific emission standards set forth in §§C—F of this regulation, a person who owns or operates more than one installation subject to this regulation may achieve compliance by meeting an overall source or system-wide NOx emission reduction that is equivalent to or greater than the NOx emission reduction that would be achieved if each individual installation complied with applicable requirements.

(b) A person who proposes to comply with this regulation by averaging the emissions of two or more installations (separate stacks) shall submit a proposal to the Department for approval.

(c) Any proposal for emissions averaging approved by the Department is not an acceptable means of compliance until the proposal is also approved by the EPA as a revision to the State Implementation Plan (SIP).

(d) A person who proposes to average emissions to comply with this regulation shall:

(i) Have the capability to continuously monitor NOx emissions for each installation to be included in the emissions averaging; and

(ii) Demonstrate to the Department that on each day of operation the total plant or system-wide NOx emissions are equal to or less than the NOx emissions that would be discharged if each installation met the applicable emission standard in this regulation.

(5) Operator Training.

(a) For purposes of this regulation, the equipment operator to be trained may be the person who maintains the equipment and makes the necessary adjustments for efficient operation.

(b) The operator training course sponsored by the Department shall include an in-house training course that is approved by the Department.

C. Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 250 Million Btu Per Hour or Greater.

(1) A person who owns or operates fuel-burning equipment with a rated heat input capacity of 250 Million Btu per hour or greater shall equip each installation with combustion modifications or other technologies to meet the NOx emission rates in §C(2) of this regulation.

(2) The maximum NOx emission rates as pounds of NOx per Million Btu per hour are:

(a) 0.45 for tangentially coal fired units located at an electric generating facility (excluding high heat release units);

(b) 0.50 for wall coal fired units located at an electric generating facility (excluding high heat release units);

(c) 0.30 for oil fired or gas/oil fired units located at an electric generating facility;

(d) 0.70 for coal fired cyclone fuel burning equipment located at an electric generating facility from May 1 through September 30 of each year and 1.5 during the period October 1 through April 30 of each year;

(e) 0.70 for a tangentially coal fired high heat release unit located at an electric generating facility;

(f) 0.80 for a wall coal fired high heat release unit located at an electric generating facility; and

(g) 0.6 for coal fired cell burners at an electric generating facility.

(3) A person who owns or operates fuel burning equipment with a rated heat input capacity of 250 Million Btu per hour or greater shall install, operate, calibrate, and maintain a certified NOx CEM or an alternative NOx monitoring method approved by the Department and the EPA on each installation.

D. Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of Less than 250 Million Btu Per Hour and Greater than 100 Million Btu Per Hour.

(1) Equipment Specifications and Standards.

(a) A person who owns or operates coal fired fuel-burning equipment with a rated heat input capacity of less than 250 Million Btu per hour and greater than 100 Million Btu per hour shall install and operate in accordance with the manufacturer's specifications, combustion modifications, or other technologies to meet an emission rate of 0.65 pounds of NOx per Million Btu per hour.

(b) All other fuel burning equipment with a rated heat input capacity of less than 250 Million Btu per hour and greater than 100 Million Btu per hour shall meet the NOx emission rates set forth in §B(1)(c) of this regulation.

(2) Exceptions. The requirements in §D(1) of this regulation do not apply to a space heater as defined in Regulation .01B of this chapter or to fuel-burning equipment subject to §G of this regulation.

E. Requirements for Fuel-Burning Equipment with a Rated Heat Input Capacity of 100 Million Btu Per Hour or Less. A person who owns or operates fuel-burning equipment with a rated heat input capacity of 100 Million Btu per hour or less shall:

(1) Submit to the Department an identification of each affected installation, the rated heat input capacity of each installation, and the type of fuel burned in each;

(2) Perform a combustion analysis for each installation at least once each year and optimize combustion based on the analysis;

- (3) Maintain the results of the combustion analysis at the site for at least 2 years and make this data available to the Department and the EPA upon request;
- (4) Once every 3 years, require each operator of the installation to attend operator training programs on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (5) Prepare and maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.

F. Requirements for Space Heaters.

(1) A person who owns or operates a space heater as defined in Regulation .01B of this chapter shall:

- (a) Submit to the Department a list of each affected installation on the premises and the types of fuel used in each installation;
- (b) Develop an operating and maintenance plan to minimize NO_x emissions based on the recommendations of equipment vendors and other information including the source's operating and maintenance experience;
- (c) Implement the operating and maintenance plan and maintain the plan at the premises for review upon request by the Department;
- (d) Require installation operators to attend in-State operator training programs once every 3 years on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and
- (e) Prepare and maintain a record of training program attendance for each operator at the site and make these records available to the Department upon request.

(2) A person who owns or operates an installation that no longer qualifies as a space heater shall inform the Department not later than 60 days after the date when the fuel-burning equipment did not qualify, and shall meet the applicable fuel-burning equipment RACT requirement in this regulation.

G. Requirements for Fuel-Burning Equipment with a Capacity Factor of 15 Percent or Less, and Combustion Turbines with a Capacity Factor Greater than 15 Percent.

(1) A person who owns or operates fuel-burning equipment with a capacity factor (as defined in 40 CFR Part 72.2) of 15 percent or less shall:

- (a) Provide certification of the capacity factor of the equipment to the Department in writing;
- (b) For fuel-burning equipment that operates more than 500 hours during a calendar year, perform a combustion analysis and optimize combustion at least once annually;

(c) Maintain the results of the combustion analysis at the site for at least 2 years and make these results available to the Department and the EPA upon request;

(d) Require each operator of an installation, except combustion turbines, to attend operator training programs at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and

(e) Maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request.

(2) A person who owns or operates a combustion turbine with a capacity factor greater than 15 percent shall meet an hourly average NO_x emission rate of not more than 42 ppm when burning gas or 65 ppm when burning fuel oil (dry volume at 15 percent oxygen) or meet applicable Prevention of Significant Deterioration limits, whichever is more restrictive.

H. Requirements for Municipal Waste Combustors, and Hospital, Medical, and Infectious Waste Incinerators.

(1) A person who owns or operates a municipal waste combustor shall install, operate, and maintain a CEM for NO_x emissions.

(2) NO_x emissions from municipal waste combustors may not exceed the NO_x emissions standards in COMAR 26.11.08.07 and COMAR 26.11.08.08 or applicable Prevention of Significant Deterioration limits, whichever is more restrictive.

(3) NO_x emissions from hospital, medical, and infectious waste incinerators as defined in COMAR 26.11.08.01B(18) may not exceed the NO_x emission standards in COMAR 26.11.08.08-1A(2) (250 ppm 24-hour average) as applicable.

I. Requirements for Glass Melting Furnaces.

(1) A person who owns or operates a glass melting furnace shall optimize combustion by performing daily oxygen tests and maintaining excess oxygen at 4.5 percent or less.

(2) Records on the daily oxygen tests shall be maintained on site for at least 2 years and made available to the Department upon request.

J. Requirements for Industrial Furnaces and Other Miscellaneous Installations that Cause Emissions of NO_x. A person who owns or operates any installation other than fuel-burning equipment that causes NO_x emissions shall:

(1) Maintain good operating practices as recommended by the equipment vendor to minimize NO_x emissions;

(2) Prepare and implement a written in-house training program for all operators of these installations that include instruction on good operating and maintenance practices for the particular installation;

(3) Maintain and make available to the Department, upon request, the written in-house operator training program;

(4) Burn only gas in each installation, where gas is available, during the period May 1 through September 30 of each year; and

(5) Maintain operator training attendance records for each operator at the site for at least 2 years and make these records available to the Department upon request.

K. Reporting Requirements.

(1) When demonstration of compliance with the NO_x emission standards in this regulation is based on CEM data, quarterly emission reports shall be submitted to the Department on or before the thirtieth day of the month following the end of each calendar quarter.

(2) When compliance with this regulation is demonstrated by a stack test, the results of the stack tests required by this regulation shall be submitted to the Department within 45 days after completion of the test.

(3) A person subject to this regulation shall maintain annual fuel use records on site for not less than 3 years, and make these records available to the Department upon request.