

# Title 26 DEPARTMENT OF THE ENVIRONMENT

## Subtitle 11 AIR QUALITY

### Chapter 38 Control of NO<sub>x</sub> Emissions from Coal-Fired Electric Generating Units

Authority: Environmental Article, §§1-404, 2-103 and 2-301—2-303, Annotated Code of Maryland

#### ALL NEW MATTER

#### .01 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) "Affected electric generating unit" means any one of the following coal-fired electric generating units:

- (a) Brandon Shores Units 1 and 2;
- (b) C.P. Crane Units 1 and 2;
- (c) Chalk Point Units 1 and 2;
- (d) Dickerson Units 1, 2, and 3;
- (e) H.A. Wagner Units 2 and 3;
- (f) Morgantown Units 1 and 2; and
- (g) Warrior Run.

(2) "Operating day" means a 24-hour period beginning midnight of one day and ending the following midnight, or an alternative 24-hour period approved by the Department, during which time an installation is operating, consuming fuel, or causing emissions.

(3) "Ozone season" means the period beginning May 1 of any given year and ending September 30 of the same year.

(4) System.

(a) "System" means all affected electric generating units within the State of Maryland subject to this chapter that are owned, operated, or controlled by the same person and are located:

- (i) In the same ozone nonattainment area as specified in 40 CFR Part 81; or
- (ii) Outside any designated ozone nonattainment area as specified in 40 CFR 81.

(b) A system must include at least two affected electric generating units.

(5) "System operating day" means any day in which an electric generating unit in a system operates.

(6) "30-day system-wide rolling average emission rate" means a value in lbs/MMBtu calculated by:

(a) Summing the total pounds of pollutant emitted from the system during the current system operating day and the previous twenty-nine system operating days;

(b) Summing the total heat input to the system in MMBtu during the current system operating day and the previous twenty-nine system operating days; and

(c) Dividing the total number of pounds of pollutant emitted during the thirty system operating days by the total heat input during the thirty system operating days.

(7) "24-hour block average emission rate" means a value in lbs/MMBtu calculated by:

(a) Summing the total pounds of pollutant emitted from the unit during 24 hours between midnight of one day and ending the following midnight;

(b) Summing the total heat input to the unit in MMBtu during 24 hours between midnight of one day and ending the following midnight; and

(c) Dividing the total number of pounds of pollutant emitted during 24 hours between midnight of one day and ending the following midnight by the total heat input during 24 hours between midnight of one day and ending the following midnight.

#### .02 Applicability.

The provisions of this chapter apply to an affected electric generating unit as that term is defined in §.01B of this chapter.

#### .03 2015 NO<sub>x</sub> Emission Control Requirements.

A. Daily NO<sub>x</sub> Reduction Requirements During the Ozone Season.

(1) Not later than 45 days after the effective date of this regulation, the owner or operator of an affected electric generating unit shall submit a plan to the Department and EPA for approval that demonstrates how each affected electric generating unit ("the unit") will operate installed pollution control technology and combustion controls to meet the requirements of §A(2) of this regulation. The plan shall summarize the data that will be collected to demonstrate compliance with §A(2) of this regulation. The plan shall cover all modes of operation, including but not limited to normal operations, start-up, shut-down and low load operations.

(2) Beginning on May 1, 2015, for each operating day during the ozone season, the owner or operator of an affected electric generating unit shall minimize NOx emissions by operating and optimizing the use of all installed pollution control technology and combustion controls consistent with the technological limitations, manufacturers' specifications, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions (as defined in 40 C.F.R. § 60.11(d)) for such equipment and the unit at all times the unit is in operation while burning any coal.

**B. Ozone Season NOx Reduction Requirements.**

(1) Except as provided in §B(3) of this regulation, the owner or operator of an affected electric generating unit shall not exceed a NOx 30-day system-wide rolling average emission rate of 0.15 lbs/MMBtu during the ozone season.

(2) The owner or operator of an affected electric generating unit subject to the provisions of this regulation shall continue to meet the ozone season NOx reduction requirements in COMAR 26.11.27.

**(3) Ownership of Single Electric Generating Facility.**

(a) An affected electric generating unit is not subject to B(1) if the unit is located at an electric generating facility that is the only facility in Maryland directly or indirectly owned, operated or controlled by the owner, operator or controller of the facility.

(b) For the purposes of §B(3) of this regulation, the owner includes parent companies, affiliates and subsidiaries of the owner.

**C. Annual NOx Reduction Requirements.** The owner or operator of an affected electric generating unit subject to the provisions of this regulation shall continue to meet the annual NOx reduction requirements in COMAR 26.11.27.

**D. NOx Emission Requirements for Affected Electric Generating Units Equipped with Fluidized Bed Combustors.**

(1) The owner or operator of an affected electric generating unit equipped with a fluidized bed combustor is not subject to the requirements of §§A, B(1), B(2) and C of this regulation.

(2) The owner or operator of an affected electric generating unit equipped with a fluidized bed combustor shall not exceed a NOx 24-hour block average emission rate of 0.10 lbs/MMBtu.

**.04 Compliance Demonstration Requirements.**

**A. Procedures for demonstrating compliance with §.03(A) of this chapter.**

(1) An affected electric generating unit shall demonstrate, to the Department's satisfaction, compliance with §.03(A)(2) of this chapter, using the information collected and maintained in accordance with §.03(A)(1) of this chapter and any additional documentation available to and maintained by the affected electric generating unit.

(2) An affected electric generating unit shall not be required to submit a unit-specific report consistent with §A(3) of this regulation when the unit emits at levels that are at or below the following rates:

Affected Unit	24-Hour Block Average NOx Emissions in lbs/MMBtu
<b>Brandon Shores</b>	
Unit 1	0.08
Unit 2	
< 650 MWg	0.07
≥ 650 MWg	0.15
<b>C.P. Crane</b>	
Unit 1	0.30
Unit 2	0.28
<b>Chalk Point</b>	
Unit 1 only	0.07
Unit 2 only	0.33
Units 1 and 2 combined	0.20
<b>Dickerson</b>	
Unit 1 only	0.24
Unit 2 only	0.24
Unit 3 only	0.24

Two or more Units combined	0.24
H.A. Wagner	
Unit 2	0.34
Unit 3	0.07
Morgantown	
Unit 1	0.07
Unit 2	0.07

(3) The owner or operator of an affected electric generating unit subject to §.03(A)(2) of this chapter shall submit a unit-specific report for each day the unit exceeds its NOx emission rate of §A(2) of this regulation, which shall include the following information for the entire operating day:

- (a) Hours of operation for the unit;
- (b) Hourly averages of operating temperature of installed pollution control technology;
- (c) Hourly averages of heat input (MMBtu/hr);
- (d) Hourly averages of output (MWh);
- (e) Hourly averages of Ammonia or urea flow rates;
- (f) Hourly averages of NOx emissions data (lbs/MMBtu and tons);
- (g) Malfunction data;
- (h) The technical and operational reason the rate was exceeded, such as:
  - (i) operator error;
  - (ii) technical events beyond the control of the owner or operator (e.g. acts of God, malfunctions); or
  - (iii) dispatch requirements that mandate unplanned operation (e.g. start-ups and shut-downs, idling and operation at low voltage or low load);

(i) A written narrative describing any actions taken to reduce emission rates; and  
(j) Other information that the Department determines is necessary to evaluate the data or to ensure that compliance is achieved.

(4) An exceedance of the emissions rate of §A(2) of this regulation as a result of factors including but not limited to start-up and shut-down, days when the unit was directed by the electric grid operator to operate at low load or to operate pursuant to any emergency generation operations required by the electric grid operator, including necessary testing for such emergency operations, or to have otherwise occurred during operations which are deemed consistent with the unit's technological limitations, manufacturers' specifications, good engineering and maintenance practices, and good air pollution control practices for minimizing emissions, shall not be considered a violation of §.03A(2) of this chapter provided that the provisions of the approved plan as required in §.03A(1) of this chapter are met.

B. Procedures for demonstrating compliance with NOx emission rates of this chapter.

(1) Compliance with the NOx emission rate limitations in §§.03B(1), .03D(2), and .04A(2) of this chapter shall be demonstrated with a continuous emission monitoring system that is installed, operated, and certified in accordance with 40 CFR Part 75.

(2) For §.03B(1) of this chapter, in order to calculate the 30-day system-wide rolling average emission rates, if twenty-nine system operating days are not available from the current ozone season, system operating days from the previous ozone season shall be used.

## **.05 Reporting Requirements.**

A. Reporting Schedule.

(1) Beginning 30 days after the first month of the ozone season following the effective date of this chapter, each affected electric generating unit subject to the requirements of this chapter shall submit a monthly report to the Department detailing the status of compliance with this chapter during the ozone season.

(2) Each subsequent monthly report shall be submitted to the Department not later than 30 days following the end of the calendar month during the ozone season.

B. Monthly Reports During Ozone Season. Monthly reports during the ozone season shall include:

- (1) Daily pass or fail of the NO<sub>x</sub> emission rates of §.04A(2) of this chapter.
- (2) The reporting information as required under §.04A(3) of this chapter.
- (3) The 30-day system-wide rolling average emission rate for each affected electric generating unit to demonstrate compliance with §.03B(1) of this chapter.

**END NEW MATTER**