# Title 26 DEPARTMENT OF THE ENVIRONMENT Subtitle 11 AIR QUALITY

# Chapter 29 Control of NOx Emissions from Natural Gas Pipeline Compression Stations

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

#### .01 Definitions.

- A. In this chapter, the following terms have the meanings indicated.
- B. Terms defined.
- (1) "Natural gas pipeline compression station" means a main line natural gas transmission station, consisting of one or more internal combustion engines, used to compress natural gas there-by sustaining flow of natural gas through the pipeline.
- (2) "Parametric Optimization" means the adjustment of an internal combustion engine, such as adjustment of the air to fuel ratio, that maximizes engine efficiency and minimizes emissions.

## .02 Applicability and General Requirements.

- A. Applicability. This chapter applies to stationary internal combustion engines used to compress natural gas located at natural gas pipeline compression stations.
- B. NOx Emission Limits. A person who owns or operates a stationary internal combustion engine to which this chapter applies shall perform either parametric optimization or engine re-build to meet the following NOx emission limits:
- (1) Facilities with five or less internal combustion engines shall meet a combined maximum hourly emission limit of 300 pounds per hour or less.
- (2) Facilities with more than five engines shall meet a combined maximum hourly emission limit of 566 pounds per hour or less.
  - C. NOx Emission Rates.
- (1) The NOx emission rates in C(2) of this regulation apply to a stationary internal combustion engine used to compress natural gas at a natural gas pipeline compression station if the engine is one of the types and corresponding sizes identified in C(2).
  - (2) Emission Rates.

Type Engine	Size (brake HP)	NOx Emission Rate (15 percent oxygen)
Spark ignited rich burn Spark ignited lean burn Diesel engines Dual fuel engines	2400 HP or greater 2400 HP or greater 3100 HP or greater 4400 HP or greater	110 ppmv 125 ppmv 175 ppmv 125 ppmv

(3) The NOx emission rates in §C(2) of this regulation shall apply on and after May 1, 2003.

### .03 Monitoring Requirements.

- A. A person who owns or operates a stationary internal combustion engine subject to Regulation .02C shall:
- (1) Continuously monitor NOx emissions with a continuous emissions monitor ("CEM") certified in accordance with 40 CFR Part 60 or use an alternative method approved by the Department and the EPA;
- (2) On or before May 1, 2002, and every year thereafter, collect NOx emissions data that was obtained pursuant to §A(1) of this regulation; and
- (3) Submit emissions data collected pursuant to §A(2) of this regulation to the Department for the previous calendar year by April 1 of each year.
- B. The NOx emissions data collected pursuant to §A(2) of this regulation shall be used to demonstrate compliance with the emission reduction requirements in Regulation .02C of this chapter.

### .04 Demonstrating Compliance.

A. Internal combustion engines equipped with a CEM.

- (1) The owner or operator of an internal combustion engine subject to this chapter that is equipped with a CEM shall demonstrate compliance with the NOx emissions limits and rates in Regulation .02B & C of this chapter using CEM data.
- (2) The sum of the NOx emissions from all affected engines at the facility shall be used to demonstrate compliance with Regulation .02B.
  - B. Internal combustion engines not equipped with a CEM.
- (1) The owner or operator of an internal combustion engine subject to this chapter that is not equipped with a CEM shall demonstrate compliance with the NOx emissions limits and rates in Regulation .02B & C of this chapter as follows:
- (a) Compliance shall be established by stack tests using EPA Method 7 or other test methods approved by the Department and the EPA; or
  - (b) Compliance shall be established by an alternative emissions test approved by the Department.
- (2) The results of the stack tests or alternative emissions test for each engine and fuel consumption records submitted to the Department pursuant to Regulation .05 shall be used to calculate NOx emissions for each affected engine.
- (3) The sum of the NOx emissions from all of the stationary internal combustion engines at a natural gas pipeline compression station that are subject to this chapter shall be used to demonstrate compliance with Regulation .02B.
- (4) Stack test schedule. The owner or operator of an internal combustion engine subject to this chapter that is not equipped with a CEM shall conduct a stack test or an alternative emissions test approved by the Department to determine NOx emissions for each affected engine not less than once each 12-month period.
- .05 Maintaining Records. Results from the previous calendar year of the stack tests, emissions tests or CEM data and fuel consumption records for each internal combustion engine subject to this chapter shall be submitted to the Department as part of the annual emissions report due April 1 of each year.