

REGULATION NO. 1142

SPECIFIC EMISSION CONTROL REQUIREMENTS

xx/xx/200x

2.0 Control of NO_x Emissions from Industrial Boilers and Process Heaters at Petroleum Refineries

2.1 Purpose

The purpose of Section 2.0 of this regulation is to control NO_x emissions from industrial boilers and process heaters with heat inputs equal to or greater than 200 million British thermal units per hour (MMBTU/hr).

Under the 8-hour ozone national ambient air quality standard (NAAQS), the state of Delaware is a part of the Philadelphia-Wilmington-Atlantic City, PA-DE-MD-NJ moderate non-attainment area (NAA). The entire NAA, including Delaware, is required by the Clean Air Act (CAA) to attain the 8-hour ozone NAAQS by 2010. By implementing Section 2.0 of this regulation, NO_x emission reductions from the affected boilers and heaters shall contribute to (1) attainment of the 8-hour ozone standard and (2) improvement of the ambient air quality, in both Delaware and the entire NAA.

Additionally, New Castle County in Delaware is a part of the Philadelphia-Wilmington-Camden, PA-DE-NJ NAA for the annual NAAQS of the fine particulate matter (PM_{2.5}), and therefore is required by the CAA to attain the NAAQS by 2010. Since NO_x is a significant precursor to PM_{2.5} formation, reducing NO_x emissions will also assist in reducing PM_{2.5} and attaining its annual standard.

2.2 Applicability And Effective Date

2.2.1 Section 2.0 of this regulation applies to any person that owns or operates any industrial boiler or process heater, inclusive of any carbon monoxide (CO) boiler, with a maximum heat input capacity of equal to or greater than 200 million BTUs per hour, which is operated within a petroleum refinery facility on the effective date of this section.

2.2.2 The requirements of Section 2.0 of this regulation are in addition to all other state and federal requirements.

2.2.3 This regulation shall become effective on **xx/xx/200x**. Any person subject to Section 2.2.1 of this regulation shall comply with the requirements of Section 2.3 of this regulation as soon as practicable, but before May 1, 2009.

2.3 Standards

2.3.1 Except as provided in Section 2.3.2, the NO_x emission rates of affected units subject to Section 2.2.1 of this regulation shall not exceed the following:

2.3.1.1 0.04 lb/mmBTU, on 24-hour rolling average period for any single unit, except the Steam Methane Reformer (SMR) heater (Unit 37-H-1 A and B), and

2.3.1.2 0.07 lb/mmBTU for the Steam Methane Reformer (SMR) Heater (Unit 37-H-1 A and B), on a 24-hour rolling average basis.

2.3.1.3 For all units as a group subject to Section 2.3.1.1, a subgroup with at least XX% of total group heat input shall meet the above standards by May 1, 2009. The rest of units shall meet the above standards as soon as practicable, but before January 1, 2012.

2.3.2 For any coker carbon monoxide (CO) boiler subject to Section 2.2.1 of this regulation, its NO_x emission rate shall not exceed the following:

2.3.2.1 An annual average concentration of 20 parts per million by volume, dry (ppmvd) at 0 % oxygen on a 365-day rolling average basis and 40 ppmvd at 0 % oxygen on a 7-day rolling average basis.

2.3.2.2 Compliance with 2.3.2.1 shall be as soon as practicable, but before **XX/XX/20XX**.

2.3.2.3 This section provides an opportunity for any person subject to Section 2.2.1 of this regulation to evaluate evolving emerging technologies that meet the proposed emission standard in Section 2.3.2.1. Therefore, any affected person shall conduct an annual technical review of available control options and identify those determined to be feasible for implementation by the proposed compliance date. The annual technical reviews shall include cost effectiveness analyses for each control option evaluated and propose an

implementation schedule for the option selected. An annual technical review shall be submitted to the Department no later than January 31, of the following year.

2.3.3 Monitoring Requirements. Compliance with the NO_x emission standards specified in 2.3.1 and 2.3.2 of this regulation shall be determined based on CEM data collected in accordance with the appropriate requirements set forth in 40 CFR, Part 60, Appendix B, Performance Specification 2, and the QA/QC requirements in 40 CFR Part 60, Appendix F.

2.4 Recordkeeping and Reporting Requirements

2.4.1 Not later than 180 days after the effective date of Section 2.0 of this regulation, any person subject to Section 2.2.1 of this regulation shall develop, and submit to the Department for approval, a schedule for bringing the affected emission unit(s) into compliance with the requirements of Section 2.3 of this regulation. Such schedule shall include, at a minimum, all of the following:

2.4.1.1 The method by which compliance will be achieved

2.4.1.2 The dates by which the affected person plans to complete the following major increments of progress, as applicable:

2.4.1.2.1 Completion of engineering

2.4.1.2.2 Submission of permit applications

2.4.1.2.3 Awarding of contracts for construction and/or installation

2.4.1.2.4 Initiation of construction

2.4.1.2.5 Completion of construction

2.4.1.2.6 Commencement of trial operation

2.4.1.2.7 Initial compliance testing

2.4.1.2.8 Submission of compliance testing reports

2.4.1.2.9 Commencement of normal operations (in full compliance)

2.4.2 Any person subject to Section 2.2.1 of this regulation shall submit to the Department an initial compliance certification before May 1, 2009, or before the extended compliance dates specified in Sections 2.3.1.3 and 2.3.2.2. The initial compliance certification shall, at a minimum, include the following information:

2.4.2.1 The name and the location of the facility.

2.4.2.2 The name, address and telephone number of the person responsible for the facility.

2.4.2.3 Identification of the subject source(s).

2.4.2.4 The applicable standard.

2.4.2.5 The method of compliance.

2.4.2.6 Certification that each subject source is in compliance with the applicable standard.

2.4.3 Any person subject to Section 2.2.1 of this regulation shall, for each occurrence of excess emissions above the standards of Section 2.3 of this regulation, within thirty (30) calendar days of becoming aware of such occurrence, supply the Department with the following information:

2.4.3.1 The name and location of the facility.

2.4.3.2 The subject source(s) that caused the excess emissions.

2.4.3.3 The time and date of first observation of the excess emissions.

2.4.3.4 The cause and expected duration of the excess emissions.

2.4.3.5 The estimated rate of emissions (expressed in the units of the applicable emission limitation) and the operating data and calculations used in determining the magnitude of the excess emissions.

2.4.3.6 The proposed corrective actions and schedule to correct the conditions causing the excess emissions.

2.4.4 Any person subject to Section 2.2.1 of this regulation shall maintain all information necessary to determine and demonstrate compliance with the requirements of this section for a minimum period of five

(5) years. Such information shall be immediately made available to the Department upon verbal and written request.