# ILLINOIS POLLUTION CONTROL BOARD July 11, 2024

IN THE MATTER OF: )
AMENDMENTS TO 35 ILL. ADM. CODE )
217, NITROGEN OXIDES EMISSIONS )

R 25-17 (Rulemaking – Air)

Proposed Rule. First Notice.

OPINION AND ORDER OF THE BOARD (by M.D. Mankowski):

On July 8, 2024, the Illinois Environmental Protection Agency (IEPA) filed a proposal to revise the Board's air pollution regulations under Part 217, which addresses emission of nitrogen oxides ( $NO_x$ ). IEPA's proposal includes Statement of Reasons (SR), Technical Support Document (TSD), the proposed revisions to Part 217, a motion for waiver of specified requirements (Mot. Waive), and a motion for expedited review (Mot. Exp.). *See* 35 Ill. Adm. Code 102.202.

For the reasons below, the Board accepts IEPA's proposal for hearing, grants IEPA's motion for expedited review and submits the proposal to first-notice publication without comment on its substantive merits, grants IEPA's motion to waive specified requirements to submit material, and directs its assigned hearing officer to proceed expeditiously to hearing consistent with the Board's limited resources.

#### **IEPA PROPOSAL**

NO<sub>x</sub> is an ozone precursor, as ground-level ozone forms when NO<sub>x</sub> and volatile organic compounds react in the atmosphere in the presence of sunlight. SR at 4. In 2007, 2009, and 2011, the Board amended its NO<sub>x</sub> rules under Part 217 to satisfy the NO<sub>x</sub> reasonably available control technology (RACT) requirements under the Clean Air Act (CAA). *Id.* at 1, citing Nitrogen Oxides (NO<sub>x</sub>) Emissions, Amendments to 35 Ill. Adm. Code 217, R 11-24, 11-26 (consol.); Nitrogen Oxides (NO<sub>x</sub>) Emissions From Various Source Categories, Amendments to 35 Ill. Adm. Code Parts 211 and 217, R 08-19; Section 27 Proposed Rules for Nitrogen Oxide (NO<sub>x</sub>) Emissions From Stationary Reciprocating Internal Combustion Engines and Turbines: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R 07-19; Fast-Track Rules Under Nitrogen Oxide (NO<sub>x</sub>) SIP Call Phase II: Amendments to 35 Ill. Adm. Code Section 201.146, Parts 211 and 217, R 07-18. Among these amendments, only the rules adopted as Subpart Q in R07-18 were approved by the United States Environmental Protection Agency (USEPA) for incorporation into the Illinois State Implementation Plan (SIP). SR at 2, n.1, citing 74 Fed. Reg. 30466 (June 26, 2009). IEPA withdrew other rules from consideration after USEPA identified deficiencies with them. SR at 2.

In 2015, the USEPA revised the primary and secondary National Ambient Air Quality Standard (NAAQS) for ozone to 0.070 part per million. SR at 4, citing 80 Fed. Reg. 65292 (Oct. 26, 2015). USEPA designated Chicago and Metro East as marginal nonattainment areas for the 2015 ozone NAAQS with an attainment date of August 3, 2021. SR at 4, citing 83 Fed. Reg. 25776 (June 4, 2018). In 2022, USEPA determined that these two areas failed to attain the standard by that date, and by operation of law reclassified them as moderate nonattainment for the 2015 ozone NAAQS. SR at 4, citing 87 Fed. Reg. 60897 (Oct. 7, 2022).

In October 2023, USEPA found that eleven states, including Illinois, had failed to submit SIP revisions required by the CAA deadline of May 1, 2023, for areas classified as moderate nonattainment for the 2015 ozone NAAQS. SR at 5, citing 88 Fed. Reg, 71757 (Oct. 18, 2023). This finding triggers deadlines to impose mandatory sanctions if a state does not submit a complete SIP addressing the outstanding requirements. SR at 5. However, these sanctions will not take effect if, within 18 months after the November 17, 2023 effective date of that finding, "USEPA affirmatively determines that the State has made a complete SIP submittal addressing the deficiency for which the finding was made." *Id.* at 5-6. Thus, Illinois will have to submit its complete SIP before May 19, 2025. Additionally, if USEPA approves Illinois' SIP submittal within 2 years of its November 2023 findings, USEPA is not required to impose a federal implementation plan (FIP) for the affected nonattainment areas. *Id.* at 6.

IEPA states that its proposal intends to address NOx RACT regulations for moderate nonattainment areas as well as deficiencies identified in USEPA's November 2023 finding. SR at 1, 9, 11-13; *see* TSD at 3. In addition, IEPA's proposal also addresses Illinois' obligation to adopt NO<sub>x</sub> RACT regulations for major stationary sources of NO<sub>x</sub> in ozone nonattainment areas classified as serious. *Id.* Based on a review of available ozone monitoring data, IEPA anticipates that the Chicago and Metro East nonattainment areas will fail to attain the 2015 ozone standard by the August 3, 2024 attainment date and that USEPA will reclassify these areas as serious nonattainment. SR at 6. This imposes additional requirements, including lowering the major source threshold from 100 to 50 tons per year of NO<sub>x</sub>. *Id.* IEPA proposes to revise Part 217 to proactively address this expected reclassification. *Id.* 

The Board finds that IEPA's proposal meets the requirements of the Act and the Board's procedural rules and accepts the proposal for hearing. *See* 415 ILCS 5/27, 28 (2022); 35 Ill. Adm. Code 102.202.

#### **MOTION FOR EXPEDITED REVIEW**

IEPA asserts that a large portion of its proposal qualifies as a "fast-track" rulemaking under Section 28.5 of the Act, "as the amendments are federally required and USEPA is authorized to impose sanctions for the State's failure to submit them." *Id.* at 4; *see* 415 ILCS 5/28.5 (2022). IEPA acknowledges that another portion of its proposal is not federally required and is "intended to proactively address future CAA requirements, not current ones." Mot. Exp. at 4. While IEPA asserts that it could submit the required amendments as a fast-track proposal separate from the other proposed amendments, it chose to submit "all proposed amendments to the Board in a single proposal in order to conserve resources." *Id*.

Based on these factors, IEPA concludes that "it is necessary to expedite review in this matter." Mot. Exp. at 4. IEPA requests that the Board proceed to first-notice publication of its

proposal under the Illinois Administrative Procedure Act "as expeditiously as possible." *Id.*, citing 5 ILCS 100/1-1 *et seq.* (2022).

"Within 14 days after service of a motion, a party may file a response." 35 Ill. Adm. Code 101.500(d). "Unless undue delay or material prejudice would result, neither the Board nor the hearing officer will grant any motion before the 14-day response period expires," with an exception not applicable to this rulemaking. *Id.* As summarized above, the State faces a May 19, 2025 deadline to submit a SIP revision addressing specific issues and to avoid federal sanctions. Based on the risk of sanctions and the amount of time required for the Board to meet rulemaking deadlines and other requirements, the Board finds that undue delay would result from allowing the 14-day response period to run. The Board grants IEPA's motion for expedited review and its request that the Board proceed to first notice. Below, the Board directs its Clerk to submit IEPA's proposal to first-notice publication without comment on its substantive merits.

#### **MOTION FOR WAIVER**

The Board's procedural rules require that a rulemaking proposal must include "[a]ny material to be incorporated by reference within the proposed rules under Section 5-75 of the IAPA [Illinois Administrative Procedure Act]." 35 Ill. Adm. Code 102.202(d); *see* 5 ILC 100/5-75 (2022). IEPA proposes to incorporate by reference 40 CFR § 60, 40 CFR § 63.7540, and 40 CFR § 75. Mot. Waive at 1. IEPA asserts that these materials are voluminous and that, as part of the Code of Federal Regulation, they are readily accessible to the Board and publicly available online. *Id.* Based on these factors, IEPA moves that the Board waive the requirements to provide these documents. Due to the volume and availability of these federal rules, the Board grants IEPA's request to waive the filing requirement for these materials. *See* <u>Amendments to 35 Ill. Adm. Code Part 203, Major Stationary Sources Construction and Modification, 35 Ill. Adm. Code Part 204, Prevention of Significant Deterioration, and 35 Ill. Adm. Code Part 232, <u>Toxic Air Contaminants</u>, R 22-17 (Apr. 18, 2024) (granting motion by Illinois Environmental Regulatory Group); <u>Amendments to 35 Ill. Adm. Code Parts 201, 202, and 212</u>, R 23-18 (Dec. 15, 2022) (granting motion by IEPA).</u>

#### <u>ORDER</u>

- 1) The Board finds that the IEPA's proposal meets the requirements of the Act and the Board's procedural rules and accepts the proposal for hearing.
- 2) The Board grants IEPA's motion for expedited review and directs its Clerk to submit IEPA's proposal to first-notice publication without comment on its substantive merits.
- 3) The Board grants IEPA's motion for a waiver from the requirement to submit specific material to be incorporated by reference.
- 4) The Board directs its assigned hearing officer to schedule and proceed expeditiously to hearing consistent with the Board's resources.

# IT IS SO ORDERED.

I, Don A. Brown, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on July 11, 2024, by a vote of 4-0.

)on a. Brown

Don A. Brown, Clerk Illinois Pollution Control Board

# TITLE 35: ENVIRONMENTAL PROTECTION SUBTITLE B: AIR POLLUTION CHAPTER I: POLLUTION CONTROL BOARD SUBCHAPTER C: EMISSION STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

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Authority: Implementing Sections 9.9 and 10 and authorized by Sections 27 and 28.5 of the Environmental Protection Act [415 ILCS 5/9.9, 10, 27 and 28.5 (2004)].

Source: Adopted as Chapter 2: Air Pollution, Rule 207: Nitrogen Oxides Emissions, R71-23, 4 PCB 191, April 13, 1972, filed and effective April 14, 1972; amended at 2 Ill. Reg. 17, p. 101, effective April 13, 1978; codified at 7 Ill. Reg. 13609; amended in R01-9 at 25 Ill. Reg. 128, effective December 26, 2000; amended in R01-11 at 25 Ill. Reg. 4597, effective March 15, 2001; amended in R01-16 and R01-17 at 25 Ill. Reg. 5914, effective April 17, 2001; amended in R07-18 at 31 Ill. Reg. 14254, effective September 25, 2007; amended in R07-19 at 33 Ill. Reg. 11999, effective August 6, 2009; amended in R08-19 at 33 Ill. Reg. 13345, effective August 31, 2009; amended in R09-20 at 33 Ill. Reg. 15754, effective November 2, 2009; amended in R11-17 at 35 Ill. Reg. 7391, effective April 22, 2011; amended in R11-24 at 35 Ill. Reg. 14627, effective August 22, 2011; amended in R11-08 at 35 Ill. Reg. 16600, effective September 27, 2011; amended in R09-19 at 35 Ill. Reg. 18801, effective October 25, 2011; amended in R15-21 at 39 Ill. Reg. 16213, effective December 7, 2015; amended in R25-17 at 48 Ill. Reg. \_\_\_\_\_\_, effective \_\_\_\_\_\_.

# SUBPART A: GENERAL PROVISIONS

# Section 217.101 Measurement Methods

Measurement of nitrogen oxides must be according to:

- a) The phenol disulfonic acid procedures, 40 CFR 60, Appendix A<u>-4</u>, Method 7, as incorporated by reference in Section 217.104;
- b) Continuous emissions monitoring pursuant to 40 CFR 75, as incorporated by reference in Section 217.104;
- c) Determination of Nitrogen Oxides Emissions from Stationary Sources

	(Instrumental Analyzer Procedure), 40 CFR 60, Appendix A <u>-4</u> , Method 7E, as incorporated by reference in Section 217.104;
d)	Monitoring with portable monitors pursuant to ASTM D6522- $2000$ , as incorporated by reference in Section 217.104; and
e)	How do I conduct the initial and subsequent performance tests (for turbines), regarding $NO_x$ pursuant to 40 CFR 60.4400, as incorporated by reference in Section 217.104.

# Section 217.102 Abbreviations and Units

I

a) The following abbreviations are used in this Part:

ASTM	American Society for Testing and Materials
Btu	British thermal unit
bhp	brake horsepower
CEMS	continuous emissions monitoring system
EGU	Electrical Generating Unit
dscf	dry standard cubic feet
g/bhp-hr	grams per brake horsepower-hour
kg	kilogram
kg/MW-hr	kilograms per megawatt-hour
lb	pound
lbs/mmBtu	pounds per million Btu
Mg	megagram or metric ton
mm	million
mmBtu	million British thermal units
mmBtu/hr	million British thermal units per hour
MWe	megawatt of electricity
MW	megawatt; one million watts
MW-hr	megawatt-hour
NATS	NO <sub>x</sub> Allowance Tracking System
$NO_2$	nitrogen dioxide
NO <sub>X</sub>	nitrogen oxides
<b>O</b> <sub>2</sub>	oxygen
psia	pounds per square inch absolute
peoc	potential electrical output capacity
PTE	potential to emit
ppm	parts per million
ppmv	parts per million by volume
PEMS	predictive emission monitoring system
Т	English ton
TPY	tons per year

b) The following conversion factors have been used in this Part:

English	Metric
2.205 lb	1 kg
1 T	0.907 Mg
1 lb/T	0.500 kg/Mg

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

# Section 217.104 Incorporations by Reference

The following materials are incorporated by reference. These incorporations do not include any later amendments or editions.

- a) The phenol disulfonic acid procedures, as published in 40 CFR 60, Appendix A, Method 7 (2000);
- <u>ab</u>) 40 CFR 96, subparts B, D, G, and H (1999);
- <u>be</u>) 40 CFR 96.1 through 96.3, 96.5 through 96.7, 96.50 through 96.54, 96.55(a) & (b), 96.56 and 96.57 (1999);
- <u>cd</u>) 40 CFR <del>60,</del> 72<del>, 75</del> & 76 (2006);
- <u>de</u>) Alternative Control Techniques Document NO<sub>x</sub> Emissions from Cement Manufacturing, EPA-453/R94-004, U.S. Environmental Protection Agency-Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, March 1994;
- <u>ef</u>) Section 11.6, Portland Cement Manufacturing, AP-42 Compilation of Air Emission Factors, Volume 1: Stationary Point and Area Sources, U.S. Environmental Protection Agency-Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, revised January 1995;
- <del>g)</del> 40 CFR 60.13 (2001);
- h) 40 CFR 60, Appendix A, Methods 3A, 7, 7A, 7C, 7D, 7E, 19, and 20 (2000);
- ASTM D6522-2000, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers (20202000);
- j) Standards of Performance for Stationary Combustion Turbines, 40 CFR 60, Subpart KKKK, 60.4400 (2006);

- gk) Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources (20242000), USEPA;
- 1) 40 CFR 60, Appendix A, Methods 1, 2, 3, and 4 (2008);
- hm) Alternative Control Techniques Document NO<sub>x</sub> Emissions from Industrial/Commercial/Institutional (ICI) Boilers, EPA-453/R-94-022, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, March 1994;
- in) Alternative Control Techniques Document NO<sub>x</sub> Emissions from Process Heaters (Revised), EPA-453/R-93-034, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, September 1993;
- jo) Alternative Control Techniques Document NO<sub>x</sub> Emissions from Glass Manufacturing, EPA-453/R-94-037, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, June 1994;
- kp) Alternative Control Techniques Document NO<sub>x</sub> Emissions from Iron and Steel Mills, EPA-453/R-94-065, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, September 1994;
- <u>l</u>**q**) 40 CFR 60 and 75 (<u>2024</u><del>2008</del>); and
- r) 40 CFR 60, Appendix B, Performance Specification 16, 74 FR 12575 (March 25, 2009).
- <u>m)</u> <u>40 CFR 63.7540 (2024).</u>

# SUBPART D: NO<sub>x</sub> GENERAL REQUIREMENTS

# Section 217.150 Applicability

- a) Applicability
  - <u>Before May 1, 2025, the The</u> provisions of this Subpart and Subparts E, F, G, H, I, and M of this Part apply to the following:

- A) All sources that are located in either one of the following areas and that emit or have the potential to emit NO<sub>x</sub> in an amount equal to or greater than 100 tons per year:
  - The area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County; or
  - ii) The area composed of the Metro East area counties of Jersey, Madison, Monroe, and St. Clair, and the Township of Baldwin in Randolph County; and
- B) Any industrial boiler, process heater, glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, aluminum reverberatory or crucible furnace, or fossil fuel-fired stationary boiler at <u>those such</u> sources described in subsection (a)(1)(A) of this Section that emits NO<sub>x</sub> in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season.
- 2) On and after May 1, 2025, except as otherwise provided in Subpart E or M, the provisions of this Subpart and Subparts E, F, G, H, I, and M of this Part apply to the owner or operator of any industrial boiler, process heater, glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, aluminum reverberatory or crucible furnace, or fossil fuel-fired stationary boiler that meets both of the following criteria:
  - <u>A)</u> The emission unit is at a source that is located in one of the following areas and that emits or has the potential to emit  $NO_x$  in an amount equal to or greater than 50 tons per year.
    - i) The area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County.
    - ii) The area composed of the Metro East area counties of Madison, Monroe, and St. Clair.

- 32) For purposes of this Section, "potential to emit" means the quantity of  $NO_x$  that potentially could be emitted by a stationary source before add-on controls based on the design capacity or maximum production capacity of the source and 8,760 hours per year or the quantity of  $NO_x$  that potentially could be emitted by a stationary source as established in a federally enforceable permit.
- b) If a source ceases to fulfill the emissions criteria of subsection (a) of this Section, the requirements of this Subpart and Subpart E, F, G, H, I, or M of this Part continue to apply to any emission unit that was ever subject to the provisions of any of those Subparts.
- c) The provisions of this Subpart <u>and Subparts E, F, G, H, I, and M</u> do not apply to afterburners, flares, and incinerators.
- d) Where a construction permit, for which the application was submitted to the Agency prior to the adoption of this Subpart, is issued that relies on decreases in emissions of NO<sub>\*</sub> from existing emission units for purposes of netting or emission offsets, such NO<sub>\*</sub> decreases remain creditable notwithstanding any requirements that may apply to the existing emission units pursuant to this Subpart and Subpart E, F, G, H, I, or M of this Part.
- $\underline{de}$ ) The owner or operator of an emission unit that is subject to this Subpart and Subpart E, F, G, H, I, or M of this Part must operate such unit in a manner consistent with good air pollution control practice to minimize NO<sub>x</sub> emissions.

# Section 217.152 Compliance Date and 30-Day Rolling Average Basis

- a) Compliance with the requirements of Subparts E, F, G, H, I and M by an owner or operator of an emission unit that is subject to any of those Subparts is required beginning January 1, 2015.
- a) On and after May 1, 2025, the owner or operator of an emission unit subject to the requirements of this Subpart and Subpart E, F, G, H, I, or M must comply with the requirements of the applicable Subparts. Compliance with emissions limitations must be on a 30-day rolling average basis. A 30-day rolling average consists of 30 operating days where an operating day is a calendar day in which any affected emission unit combusts any fuel. Compliance with the 30-day rolling average must be demonstrated 30 operating days after May 1, 2025.
  - 1) <u>A 30-day rolling average under Subparts E, F, I, and M is calculated using</u> the total mass of emissions from the period and the total heat input from such period.

- 2) <u>A 30-day rolling average under Subparts G and H is calculated using the total mass of emissions from the period and the total amount of glass, clinker, or lime produced in the period.</u>
- b) The owner or operator of an emission unit that is constructed or modified on or after May 1, 2025, and that is subject to this Subpart and Subpart E, F, G, H, I, or M must comply with the applicable Subparts within 180 days after initial startup of the new or modified emission unit.
- <u>c</u>b) Notwithstanding subsection (a) of this Section, compliance with the requirements of Subpart G of this Part by an owner or operator of an emission unit subject to Subpart G of this Part <u>isshall be</u> extended until December 31, 2014, if the unit is required to meet emissions limitations for NO<sub>x</sub>, as measured using a continuous emissions monitoring system, and included within a legally enforceable order on or before May 7, 2010, whereby the emissions limitations are less than 30 percent of the emissions limitations set forth-under Section 217.204.
- Notwithstanding subsection (a) of this Section, the owner or operator of emission de) units subject to Subpart E or F of this Part and located at a petroleum refinery must comply with the requirements of this Subpart and Subpart E or F of this Part, as applicable, for those emission units beginning January 1, 2015, except that the owner or operator of emission units listed in Appendix H must comply with the requirements of this Subpart, including the option of demonstrating compliance with the applicable Subpart through an emissions averaging plan under Section 217.158 and Subpart E or F of this Part, as applicable, for the listed emission units beginning on the dates set forth in Appendix H. With Agency approval, the owner or operator of emission units listed in Appendix H may elect to comply with the requirements of this Subpart and Subpart E or F of this Part, as applicable, by reducing the emissions of emission units other than those listed in Appendix H, if provided that the emissions limitations of those such other emission units are equal to or more stringent than the applicable emissions limitations set forth in Subpart E or F of this Part, as applicable, by the dates set forth in Appendix H.

# Section 217.154 Initial Performance Testing

 a) Performance testing of NO<sub>x</sub> emissions for emission units constructed on or before <u>May 1, 2025July 1, 2014</u>, and subject to emissions limitations under Subpart E, F, G, H, or I of this Part must be conducted in accordance with Section 217.157 of this Subpart. Except as provided for under Section 217.157(a)(4) and (e)(1). This subsection does not apply to owners and operators of emission units demonstrating compliance through a continuous emissions monitoring system (CEMS), predictive emission monitoring system (PEMS), or combustion tuning.

- b) Performance testing of NO<sub>x</sub> emissions for emission units for which construction or modification occurs after <u>May 1, 2025July 1, 2014</u>, and that are subject to emissions limitations under Subpart E, F, G, H, or I of this Part must be conducted within 60 days after achieving maximum operating rate but no later than 180 days after initial startup of the new or modified emission unit, in accordance with Section 217.157 of this Subpart. Except as provided for under <u>Section 217.157(a)(4) and (e)(1), this This</u> subsection does not apply to owners and operators of emission units demonstrating compliance through a <u>CEMS</u>, <u>PEMS</u>, <u>continuous emissions monitoring system</u>, predictive emission monitoring system, or combustion tuning.
- c) Notification of the initial startup of an emission unit subject to subsection (b) of this Section must be provided to the Agency no later than 30 days after initial startup.
- d) The owner or operator of an emission unit subject to subsection (a) or (b) of this Section must notify the Agency of the scheduled date for the performance testing in writing at least 30 days before <u>such the</u> date and five days before <u>such the</u> date.
- e) If demonstrating compliance through an emissions averaging plan, at least 30 days before changing the method of compliance, the owner or operator of an emission unit must submit a written notification to the Agency describing the new method of compliance, the reason for the change in the method of compliance, and the scheduled date for performance testing, if required. Upon changing the method of compliance, the owner or operator of an emission unit must submit to the Agency a revised compliance certification that meets the requirements of Section 217.155.

# Section 217.155 Initial Compliance Certification

- <u>a)</u> Before May 1, 2025:
  - 1a) By the applicable compliance date set forth-under Section 217.152, an owner or operator of an emission unit subject to Subpart E, F, G, H, or I of this Part who is not demonstrating compliance through the use of a <u>CEMS continuous emissions monitoring system</u> must certify to the Agency that the emission unit will be in compliance with the applicable emissions limitation of Subpart E, F, G, H, or I of this Part beginning on <u>such-the</u> applicable compliance date. The performance testing certification must include the results of the performance testing performed in accordance with Section 217.154(a) and (b) and the calculations necessary to demonstrate that the subject emission unit will be in initial compliance.

2b) By the applicable compliance date set forth under Section 217.152, an owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part who is demonstrating compliance through the use of a <u>CEMS continuous emissions monitoring system</u> must certify to the Agency that the affected emission units will be in compliance with the applicable emissions limitation of Subpart E, F, G, H, I, or M of this Part beginning on suchthe applicable compliance date. The compliance certification must include a certification of the installation and operation of a <u>CEMS continuous emissions monitoring system</u> required under Section 217.157 and the monitoring data necessary to demonstrate that the subject emission unit will be in initial compliance.

# b) On and after May 1, 2025:

- 1) By the applicable compliance date set forth under Section 217.152, an owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must certify to the Agency that the emission unit will be in compliance with the applicable emissions limitations of Subpart E, F, G, H, I, or M.
  - A) For emission units demonstrating compliance through performance testing, the certification must include the results of the performance testing performed in accordance with Section 217.157 and the calculations necessary to demonstrate that the subject emission unit will be in initial compliance with Subpart E, F, G, H, I, or M as applicable, of this Part.
  - B) For emission units demonstrating compliance through the use of a CEMS or PEMS, the certification must certify the installation and operation of a CEMS or PEMS, as applicable, required under Section 217.157.
- <u>For emission units constructed or modified on or after May 1, 2025, the</u> owner or operator must certify to the Agency that the emission unit will be in compliance with the applicable emissions limitations of Subpart E, F, G, H, I, or M within 180 days after initial startup of the new or modified</u> emission unit.
  - A) For emission units demonstrating compliance through performance testing, the certification must include the results of the performance testing performed in accordance with Section 217.154 and the calculations necessary to demonstrate that the subject emission unit will be in initial compliance with Subpart E, F, G, H, I, or M, as applicable, of this Part.

B) For emission units demonstrating compliance through the use of a CEMS or PEMS, the certification must certify the installation and operation of a CEMS or PEMS, as applicable, required under Section 217.157 and the monitoring data necessary to demonstrate that the subject emission unit will be in initial compliance with Subpart E, F, G, H, I, or M, as applicable, of this Part.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

# Section 217.156 Recordkeeping and Reporting

- a) The owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must keep and maintain all records used to demonstrate initial compliance and ongoing compliance with the requirements of those Subparts.
  - 1) Except as otherwise provided under this Subpart or Subpart E, F, G, H, I, or M of this Part, copies of <u>thesuch</u> records must be submitted by the owner or operator of the source to the Agency within 30 days after receipt of a written request by the Agency.
  - 2) <u>TheSuch</u> records must be kept at the source and maintained for at least five years and must be available for immediate inspection and copying by the Agency.
- b) The owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must maintain records that demonstrate compliance with the requirements of those Subparts, as applicable, that include the following:
  - 1) Identification, type (e.g., gas-fired), and location of each unit.
  - 2) Calendar date of the record.
  - 3) <u>Before May 1, 2025, monthly Monthly</u>, seasonal, and annual operating hours. <u>On and after May 1, 2025, daily operating hours.</u>
  - 4) <u>Before May 1, 2025, type Type</u> and quantity of each fuel used monthly, seasonally, and annually. <u>On and after May 1, 2025, type and quantity of each fuel used daily.</u>
  - 5) On and after May 1, 2025, total mass emissions on a daily basis and on a 30-day rolling average basis.
  - $\underline{65}$ ) Product and material throughput, as applicable.
  - $\underline{76}$  Reports for all applicable emissions tests for NO<sub>x</sub> conducted on the unit, including results.

- 87) The date, time, and duration of any startup, shutdown, or malfunction in the operation of any emission unit subject to Subpart E, F, G, H, I, or M of this Part or any emissions monitoring equipment. The records must include a description of the malfunction and corrective maintenance activity.
- <u>98</u>) A log of all maintenance and inspections related to the unit's air pollution control equipment for  $NO_x$  that is performed on the unit.
- 109) A log for the NO<sub>x</sub> monitoring device, if present, including periods when not in service and maintenance and inspection activities that are performed on the device.
- 11110) Identification of time periods for which operating conditions and pollutant data were not obtained by the <u>CEMS or PEMScontinuous emissions</u> monitoring system, including the reasons for not obtaining sufficient data and a description of corrective actions taken.
- 1211) <u>Before May 1, 2025, if</u> complying with the emissions averaging plan provisions of Section 217.158, copies of the calculations used to demonstrate compliance with the ozone season and annual control period limitations, noncompliance reports for the ozone season, and ozone and annual control period compliance reports submitted to the Agency.
- c) The owner or operator of an industrial boiler subject to Subpart E of this Part must maintain records in order to demonstrate compliance with the combustion tuning requirements under Section 217.166.
- d) The owner or operator of a process heater subject to Subpart F of this Part must maintain records in order to demonstrate compliance with the combustion tuning requirements under Section 217.186.
- e) The owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must maintain records in order to demonstrate compliance with the testing and monitoring requirements under Section 217.157.
- f) The owner or operator of an emission unit subject to Subpart E, F, G, H, or I of this Part must provide the following information with respect to performance testing pursuant to Section 217.157:
  - 1) Submit a testing protocol to the Agency at least 60 days prior to testing;
  - Notify the Agency at least 30 days in writing prior to conducting performance testing for NO<sub>x</sub> emissions and five days prior to <u>the such</u> testing;

- 3) Not later than 60 days after the completion of the test, submit the results of the test to the Agency; and
- 4) If, after the 30-days' notice for an initially scheduled test is sent, there is a delay (e.g., due to operational problems) in conducting the test as scheduled, the owner or operator of the unit must notify the Agency as soon as practicable of the delay in the original test date, either by providing at least seven days' prior notice of the rescheduled date of the test or by arranging a new test date with the Agency by mutual agreement.
- g) <u>Before May 1, 2025, the The</u> owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must notify the Agency of any exceedances of an applicable emissions limitation of Subpart E, F, G, H, I, or M of this Part by sending the applicable report with an explanation of the causes of <u>thesuch</u> exceedances to the Agency within 30 days following the end of the applicable compliance period in which the emissions limitation was not met. <u>On</u> and after May 1, 2025, the owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must notify the Agency of any exceedances of an applicable emissions limitation of Subpart E, F, G, H, I, or M of this Part by sending the applicable report with an explanation of the causes of the exceedances to the Agency within 30 days following the end of the applicable 30-day rolling average period in which the emissions limitation was not met.
- Within 30 days after the receipt of a written request by the Agency, the owner or operator of an emission unit that is exempt from the requirements of Subpart E, F, G, H, I, or M of this Part must submit records that document that the emission unit is exempt from those requirements to the Agency.
- i) <u>Until May 1, 2025, if</u> demonstrating compliance through an emissions averaging plan, by March 1 following the applicable calendar year, the owner or operator must submit to the Agency a report that demonstrates the following:
  - For all units that are part of the emissions averaging plan, the total mass of allowable NO<sub>x</sub> emissions for the ozone season and for the annual control period;
  - 2) The total mass of actual NO<sub>x</sub> emissions for the ozone season and annual control period for each unit included in the averaging plan;
  - 3) The calculations that demonstrate that the total mass of actual  $NO_x$  emissions are less than the total mass of allowable  $NO_x$  emissions using equations in Section 217.158(f); and
  - 4) The information required to determine the total mass of actual NO<sub>x</sub> emissions.

- j) On and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by March 1 following the previous calendar year, the owner or operator must submit to the Agency a report that includes the following:
  - 1) For all units that are part of the emissions averaging plan, the total mass of allowable NO<sub>x</sub> emissions on a 30-day rolling average basis.
  - 2) The total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis for each unit included in the averaging plan.
  - 3) The calculations that demonstrate that the total mass of actual NO<sub>x</sub> emissions is less than the total mass of allowable NO<sub>x</sub> emissions using equations in Section 217.158(g).
  - <u>4)</u> The daily information required to determine the total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis.
- kj) The owner or operator of an emission unit subject to the requirements of Section 217.157 and demonstrating compliance through the use of a <u>CEMS or</u> <u>PEMS continuous emissions monitoring system</u> must submit to the Agency a report within 30 days after the end of each calendar quarter. This report must include the following:
  - Information identifying and explaining the times and dates when <u>the</u> <u>CEMS or PEMS</u>continuous emissions monitoring for NO<sub>x</sub> was not in operation, other than for purposes of calibrating or performing quality assurance or quality control activities for the monitoring equipment; and
  - 2) An excess emissions and monitoring systems performance report in accordance with the requirements of 40 CFR 60.7(c) and (d) and 60.13, or 40 CFR 75, or an alternate procedure approved by the Agency and USEPA.
- Ik) Until May 1, 2025, the The owner or operator of an emission unit subject to Subpart M of this Part must comply with the compliance certification and recordkeeping and reporting requirements in accordance with 40 CFR 96, or an alternate procedure approved by the Agency and USEPA. On and after May 1, 2025, the owner or operator of an emission unit subject to Subpart M of this Part must comply with the compliance certification and recordkeeping and reporting requirements in accordance with 40 CFR 75, or an alternate procedure approved by the Agency and USEPA.
- <u>m</u>) On and after May 1, 2025, the owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must submit an annual compliance certification report that demonstrates compliance with the applicable requirements

to the Agency for the preceding calendar year by May 1 of the following year. The owner or operator may submit the annual compliance certification report to the Agency along with the Annual Emissions Report required under 35 III. Adm. Code 254 or the compliance certification required under 415 ILCS 5/39.5(7)(p)(v). The compliance report must include the following:

- 1) Identification, type (e.g., gas-fired), and location of the emission unit.
- 2) Methods used for determining compliance, including an emissions averaging plan, if applicable, a description of test methods, monitoring, recordkeeping, and reporting requirements.
- 3) A certification of compliance with the applicable emissions limitation or identification of the periods of noncompliance with a quantification of the excess emissions limitation and the excess emissions.
- 4) For each calendar month, the highest 30-day rolling average emission rate. The emissions data must be reported in the measurement units of the applicable emissions limitation.
- 5) The emission unit's daily and total operating hours, capacity utilization, and the percent operation of any CEMS or PEMS during the hours the emission unit was operating.
- 6) A certification of compliance with all applicable requirements except those identified signed by a responsible official that contains the following: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

# Section 217.157 Testing and Monitoring

- a) Industrial Boilers and Process Heaters
  - 1) The owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 250 mmBtu/hr must install, calibrate, maintain, and operate a <u>CEMS continuous emissions</u> monitoring system on the emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with 40 CFR 75, as incorporated by reference in Section 217.104. However, the owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 250 mmBtu/hr that combusts blast furnace gas with up to 10% natural gas on an annual basis and located at a source that manufactures iron and steel is not required to install, calibrate,

maintain, and operate a <u>CEMS</u> continuous emissions monitoring system on that industrial boiler, provided the heat input from natural gas does not exceed 10% on an annual basis and the owner or operator complies with the performance test requirements under this Section and demonstrates, during each performance test, that  $NO_x$  emissions from the industrial boiler are less than 70% of the applicable emissions limitation under Section 217.164. If In the event the owner or operator is unable to meet the requirements of this exception, a <u>CEMS</u> continuous emissions monitoring system is required within 12 months after that event, or by January 1, 2015, whichever is later.

- 2) The owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 100 mmBtu/hr but less than or equal to 250 mmBtu/hr must install, calibrate, maintain, and operate a <u>CEMS</u>continuous emissions monitoring system on <u>the</u>such emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.
- 3) The owner or operator of a process heater subject to Subpart F of this Part with a rated heat input capacity greater than 100 mmBtu/hr must install, calibrate, maintain, and operate a <u>CEMS continuous emissions monitoring system</u> on the emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.
- <u>4)</u> On and after May 1, 2025, the owner or operator of an industrial boiler subject to Subpart E of this Part, or a process heater subject to Subpart F of this Part, with a rated heat input capacity greater than 50 mmBtu/hr but less than or equal to 100 mmBtu/hr must have an initial performance test conducted in accordance with subsection (a)(8)(A) of this Section and Section 217.154, and subsequent performance tests conducted in accordance with subsection (a)(8) of this Section.
- 54) If demonstrating compliance through an emissions averaging plan, the owner or operator of an industrial boiler subject to Subpart E of this Part, or a process heater subject to Subpart F of this Part, with a rated heat input capacity less than or equal to 100 mmBtu/hr and not demonstrating compliance through a <u>CEMS continuous emissions monitoring system</u> must have an initial performance test conducted <u>in accordance</u> <u>withpursuant to</u> subsection (a)(<u>84</u>)(<u>AB</u>) of this Section and Section 217.154, and subsequent performance tests conducted in accordance with subsection (a)(8) of this Section.

- An owner or operator of an industrial boiler or process heater must have subsequent performance tests conducted pursuant to subsection (a)(4)(B) of this Section at least once every five years. When, in the opinion of the Agency or USEPA, it is necessary to conduct testing to demonstrate compliance with Section 217.164 or 217.184, as applicable, the owner or operator of an industrial boiler or process heater must, at his or her own expense, have such test conducted in accordance with the applicable test methods and procedures specified in this Section within 90 days after receipt of a notice to test from the Agency or USEPA.
- <del>B)</del> The owner or operator of an industrial boiler or process heater must have a performance test conducted using 40 CFR 60, subpart A and appendix A, Method 1, 2, 3, 4, 7E, or 19, as incorporated by reference in Section 217.104, or other alternative USEPA methods approved by the Agency. Each performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO<sub>x</sub> emissions must be measured while the industrial boiler is operating at maximum operating capacity or while the process heater is operating at normal maximum load. If the industrial boiler or process heater has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. If a combination of fuels is typically used, a performance test may be conducted, with Agency approval, on such combination of fuels typically used. Except as provided under subsection (e) of this Section, this subsection (a)(4)(B) does not apply if such owner or operator is demonstrating compliance with an emissions limitation through a continuous emissions monitoring system under subsection (a)(1), (a)(2), (a)(3), or (a)(5) of this Section.
- 65) Instead of complying with the requirements of subsection (a)(4) or (54) of this Section, an owner or operator of an industrial boiler subject to Subpart E of this Part, or a process heater subject to Subpart F of this Part, with a rated heat input capacity less than or equal to 100 mmBtu/hr may install and operate a <u>CEMS continuous emissions monitoring system</u> on <u>the such</u> emission unit in accordance with the applicable requirements of 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104. The <u>CEMS continuous emissions monitoring system</u> must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis <u>until May 1, 2025</u>, and a 30-day rolling average on and after May 1, 2025.

- 76) Notwithstanding subsection (a)(2) of this Section, the owner or operator of an auxiliary boiler subject to Subpart E of this Part with a rated heat input capacity less than or equal to 250 mmBtu/hr and a capacity factor of less than or equal to 20% is not required to install, calibrate, maintain, and operate a <u>CEMScontinuous emissions monitoring system</u> on <u>thesuch</u> boiler for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere, but must <u>conduct initial and subsequent</u> subsection (a)(<u>84</u>) of this Section.
- 8) All performance tests required by this subsection (a) must be conducted at the owner or operator's sole expense and must meet the requirements in subsection (a)(8)(A). All performance tests required by subsection (a) subsequent to an initial performance test must also meet the requirements in subsection (a)(8)(B):
  - A) The performance test must be conducted using 40 CFR 60, subpart A and appendix A, Method 1, 2, 3, 4, 7E, or 19, in appendix A-1, A-2, A-3, A-4, or A-7, respectively, as incorporated by reference in Section 217.104, or other alternative USEPA methods approved by the Agency. Each performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO<sub>x</sub> emissions must be measured while the industrial boiler or process heater is operating at maximum operating capacity or while it is operating at normal maximum load. If the industrial boiler or process heater has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. If a combination of fuels is typically used, a performance test may be conducted, with Agency approval, on the combination of fuels typically used.
  - B) A performance test must be conducted at least once every five years. When, in the opinion of the Agency or USEPA, it is necessary to conduct testing to demonstrate compliance with Section 217.164 or 217.184, as applicable, the owner or operator of an industrial boiler or process heater must have the test conducted in accordance with the applicable test methods and procedures specified in this Section within 90 days after receipt of a notice to test from the Agency or USEPA.
- b) Glass Melting Furnaces; Cement Kilns; Lime Kilns; Iron and Steel Reheat, Annealing, and Galvanizing Furnaces; and Aluminum Reverberatory and Crucible Furnaces
  - 1) An owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron

and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit  $NO_x$  in an amount equal to or greater than one ton per day must install, calibrate, maintain, and operate a <u>CEMScontinuous emissions monitoring system</u> on <u>thesuch</u> emission unit for the measurement of  $NO_x$  emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.

- 2) An owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit NO<sub>x</sub> in an amount less than one ton per day must have an initial performance test conducted pursuant to subsection (b)(4) of this Section and Section 217.154.
- 3) An owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit  $NO_x$  in an amount less than one ton per day must have subsequent performance tests conducted pursuant to subsection (b)(4) of this Section as follows:
  - A) <u>AllFor all glass melting furnaces subject to Subpart G of this Part, cement kilns or lime kilns subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnaces subject to Subpart I of this Part, including all thesuch units, including those that are part of included in an emissions averaging plan, must conduct subsequent performance tests at least once every five years; and</u>
  - B) When, in the opinion of the Agency or USEPA, it is necessary to conduct testing to demonstrate compliance with Section 217.204, 217.224, or 217.244 of this Part, as applicable, the owner or operator of a glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace must, at his or her own expense, have the such test conducted in accordance with the applicable test methods and procedures specified in this Section within 90 days after receipt of a notice to test from the Agency or USEPA.

- 4) The owner or operator of a glass melting furnace, cement kiln, or lime kiln must have a performance test conducted using 40 CFR 60, subpart A and appendix A, Methods 1, 2, 3, 4, orand 7E, in appendix A-1, A-2, A-3, or A-4, respectively, as incorporated by reference in Section 217.104 of this Part, or other alternative USEPA methods approved by the Agency. The owner or operator of an iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace must have a performance test conducted using 40 CFR 60, subpart A and appendix A, Method 1, 2, 3, 4, 7E, or 19, in appendix A-1, A-2, A-3, A-4, or A-7, respectively, as incorporated by reference in Section 217.104 of this Part, or other alternative USEPA methods approved by the Agency. Each performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO<sub>x</sub> emissions must be measured while the glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace is operating at maximum operating capacity. If the glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. Except as provided under subsection (e) of this Section, this subsection (b)(4) does not apply if thesuch owner or operator is demonstrating compliance with an emissions limitation through a CEMScontinuous emissions monitoring system under subsection (b)(1) or (b)(5) of this Section.
- 5) Instead of complying with the requirements of subsections (b)(2), (b)(3), and (b)(4) of this Section, an owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit NO<sub>x</sub> in an amount less than one ton per day may install and operate a CEMS continuous emissions monitoring system on the such emission unit in accordance with the applicable requirements of 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104 of this Part. The CEMScontinuous emissions monitoring system must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis until May 1, 2025, and a 30-day rolling average on and after May 1, 2025.
- c) Fossil Fuel-Fired Stationary Boilers. <u>Until May 1, 2025, the The</u> owner or operator of a fossil fuel-fired stationary boiler subject to Subpart M of this Part must install, calibrate, maintain, and operate a <u>CEMS</u>continuous emissions monitoring system on <u>thesuch</u> emission unit for the measurement of NO<sub>x</sub>

emissions discharged into the atmosphere in accordance with 40 CFR 96, subpart H. <u>On and after May 1, 2025, the owner or operator of a fossil fuel-fired</u> stationary boiler subject to Subpart M of this Part must install, calibrate, maintain, and operate a CEMS on the emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with 40 CFR 75.

- d) Common Stacks. If two or more emission units subject to Subpart E, F, G, H, I, M, or Q of this Part are served by a common stack and the owner or operator of thesuch emission units is operating a <u>CEMScontinuous emissions monitoring</u> system, the owner or operator may, with written approval from the Agency, <u>useutilize</u> a single <u>CEMScontinuous emissions monitoring system</u> for the combination of emission units subject to Subpart E, F, G, H, I, M, or Q of this Part that share the common stack, provided <u>thesuch</u> emission units are subject to an emissions averaging plan under this Part.
- e) Compliance with the continuous emissions monitoring system (CEMS) requirements by an owner or operator of an emission unit who is required to install, calibrate, maintain, and operate a CEMS on the emission unit under subsection (a)(1), (a)(2), (a)(3), or (b)(1) of this Section, or who has elected to comply with the CEMS requirements under subsection (a)(<u>65</u>) or (b)(5) of this Section, or who has elected to comply with the <u>predictive emission monitoring</u> system (PEMS) requirements under subsection (f) of this Section, is required by the applicable compliance date under Section 217.152 of this Subpart.
- f) As an alternative to complying with the requirements of this Section, other than the requirements under subsections (a)(1) and (c) of this Section, the owner or operator of an emission unit who is not otherwise required by any other statute, regulation, or enforceable order to install, calibrate, maintain, and operate a CEMS on the emission unit may comply with the specifications and test procedures for a predictive emission monitoring system (PEMS) on the emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with the requirements of 40 CFR 60, subpart A and appendix B, Performance Specification 16. The PEMS must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis <u>until May 1, 2025</u>, and a 30-day rolling average on and after May 1, 2025.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_\_ effective\_\_\_\_\_)

# Section 217.158 Emissions Averaging Plans

a) Notwithstanding any other emissions averaging plan provisions under this Part, an owner or operator of a source with certain emission units subject to Subpart E, F, G, H, I, or M of this Part, or subject to Subpart Q of this Part that are located in either one of the areas set forth under Section 217.150(a)(1)(A)(i) or (ii) <u>or</u> <u>Section 217.150(a)(2)(A)(i) or (ii)</u>, may demonstrate compliance with the

applicable Subpart through an emissions averaging plan. An emissions averaging plan can only address emission units that are located at one source and each unit may only be covered by one emissions averaging plan. <u>The Such</u> emission units at the source are affected units and are subject to the requirements of this Section.

- 1) The following units may be included in an emissions averaging plan:
  - A) Units that commenced operation on or before January 1, 2002.
  - B) <u>Before My 1, 2025, units</u> that the owner or operator may claim as exempt <u>underpursuant to</u> Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.342 of this Part, as applicable, but does not claim exempt. For as long as <u>thesuch</u> a unit is included in an emissions averaging plan, it will be treated as an affected unit and subject to the applicable emissions limitations, and testing, monitoring, recordkeeping and reporting requirements.
  - C) On and after May 1, 2025, units that are not otherwise subject to Subpart E, F, G, H, I, or M, as applicable, under Section 217.150(a)(2)(B), but that the owner or operator chooses to include in an emissions averaging plan. For as long as the a unit is included in an emissions averaging plan, it will be treated as an affected unit and subject to the applicable emissions limitations, testing, monitoring, recordkeeping and reporting requirements.
  - **DC**) Units that commence operation after January 1, 2002, if the unit replaces a unit that commenced operation on or before January 1, 2002, or it replaces a unit that replaced a unit that commenced operation on or before January 1, 2002. The new unit must be used for the same purpose and have substantially equivalent or less process capacity or be permitted for less NO<sub>x</sub> emissions on an annual basis than the actual NO<sub>x</sub> emissions of the unit or units that are replaced. Within 90 days after permanently shutting down a unit that is replaced, the owner or operator of <u>thesuch</u> unit must submit a written request to withdraw or amend the applicable permit to reflect that the unit is no longer in service before the replacement unit may be included in an emissions averaging plan.
- 2) The following types of units may not be included in an emissions averaging plan:
  - A) Units that commence operation after January 1, 2002, except as provided by subsection  $(a)(1)(\underline{D} \in)$  of this Section.

- B) <u>Before May 1, 2025, units Units</u> that the owner or operator is claiming are exempt <u>underpursuant to</u> Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.342 of this Part, as applicable.
- C) Units that are required to meet emission limits or control requirements for  $NO_x$  as provided for in an enforceable order, unless the order allows for emissions averaging. In the case of petroleum refineries, this subsection (a)(2)(C) does not prohibit including industrial boilers or process heaters, or both, in an emissions averaging plan when an enforceable order does not prohibit the reductions made under the order from also being used for compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area.
- b) <u>Before May 1, 2025, anAn</u> owner or operator must submit an emissions averaging plan to the Agency by January 1, 2015. The plan must include, but is not limited to, the following:
  - 1) The list of affected units included in the plan by unit identification number; and
  - A sample calculation demonstrating compliance using the methodology provided in subsection (gf) of this Section for the ozone season (May 1 through September 30) and calendar year (January 1 through December 31).
- c) On and after May 1, 2025, an owner or operator must submit an emissions averaging plan to the Agency at least 30 days before beginning the use of that plan to demonstrate compliance. The plan must include, but is not limited to, the following:
  - 1) The list of affected units included in the plan by unit identification <u>number.</u>
  - 2) The allowable emissions limitation for each unit, as provided in Sections 217.164, 217.184, 217.204, 217.224, 217.244, and 217.344 of this Part, as applicable.
  - 3) A sample calculation demonstrating compliance using the methodology provided in subsection (h) of this Section on a 30-day rolling average basis.
  - 4) The date the owner or operator will begin using the emissions averaging plan.

- <u>d</u>e) An owner or operator may amend an emissions averaging plan only once per calendar year. Such an amended plan must be submitted to the Agency by January 1 of the applicable calendar year. If an amended plan is not received by the Agency by January 1 of the applicable calendar year, the previous year's plan will be the applicable emissions averaging plan.
- <u>ed</u>) Notwithstanding subsection (<u>de</u>) of this Section:
  - If a unit that is listed in an emissions averaging plan is taken out of service, the owner or operator must submit to the Agency, within 30 days after <u>thesuch</u> occurrence, an updated emissions averaging plan; or
  - 2) <u>Before May 1, 2025, if</u> a unit that was exempt from the requirements of Subpart E, F, G, H, I, or M of this Part <u>underpursuant to</u> Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.342 of this Part, as applicable, no longer qualifies for an exemption, the owner or operator may amend its existing averaging plan to include <u>thesuch</u> unit within 30 days after the unit no longer qualifies for the exemption.
  - <u>On and after May 1, 2025, if a unit that was not otherwise subject to</u> <u>Subpart E, F, G, H, I, or M, as applicable, under Section 217.150(a)(2)(B)</u> <u>becomes subject to Subpart E, F, G, H, I, or M, as applicable, the owner or</u> <u>operator may amend its existing averaging plan to include the unit within</u> <u>30 days after the unit becomes subject to the applicable Subpart.</u>
- $\underline{fe}$ ) An owner or operator must:
  - Until May 1, 2025, demonstrate Demonstrate compliance for the ozone season (May 1 through September 30) and the calendar year (January 1 through December 31) by using the methodology and the units listed in the most recent emissions averaging plan submitted to the Agency <u>underpursuant to</u> subsection (b) of this Section, the monitoring data or test data determined <u>underpursuant to</u> Section 217.157, and the actual hours of operation for the applicable averaging plan period.; and
  - <u>On and after May 1, 2025, demonstrate compliance on a 30-day rolling average basis by using the methodology and the units listed in the most recent emissions averaging plan submitted to the Agency under subsection (c) of this Section, the monitoring data or test data determined under Section 217.157, and the actual hours of operation for the applicable averaging plan period.</u>
  - <u>32</u>) <u>Until May 1, 2025, submit Submit</u> to the Agency, by March 1 following each calendar year, a compliance report containing the information required by Section 217.156(i). <u>On and after May 1, 2025, submit to the</u>

Agency, by March 1 following each calendar year, a compliance report containing the information required by Section 217.156(j).

gf) Until May 1, 2025, the The total mass of actual  $NO_x$  emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable  $NO_x$  emissions for those units for both the ozone season and calendar year. The following equation must be used to determine compliance:

$$N_{act} \leq N_{all}$$

Where:

$$N_{act} = \sum_{i=l}^{n} \sum_{j=l}^{k} EM_{act(i,j)}$$
$$N_{all} = \sum_{i=l}^{n} \sum_{j=l}^{k} EM_{all(i,j)}$$

- $N_{act}$  = Total sum of the actual NO<sub>x</sub> mass emissions from units included in the averaging plan for each fuel used (tons per ozone season and year).
- $N_{all}$  = Total sum of the allowable NO<sub>x</sub> mass emissions from units included in the averaging plan for each fuel used (tons per ozone season and year).
- $EM_{act(i)}$  = Total mass of actual NO<sub>x</sub> emissions in tons for a unit as determined in subsection (f)(1) of this Section.

j = Subscript denoting the fuel type used.

k = Number of different fuel types.

$$EM_{all(i)}$$
 = Total mass of allowable NO<sub>x</sub> emissions in tons for a unit as determined in subsection (gf)(2) of this Section.

For each unit in the averaging plan, and each fuel used by <u>the</u>such unit, determine actual and allowable  $NO_x$  emissions using the following equations:

1) Actual emissions must be determined as follows:

When emission limits are prescribed in lb/mmBtu,

$$EM_{act(i)} = E_{act(i)} \times H_i / 2000$$

When emission limits are prescribed in lb/ton of processed product,

$$EM_{act(i)} = E_{act(i)} \times P_i / 2000$$

2) Allowable emissions must be determined as follows:

When emission limits are prescribed in lb/mmBtu,

$$EM_{all(i)} = E_{all(i)} \times H_i / 2000$$

When emission limits are prescribed in lb/ton of processed product,

$$EM_{all(i)} = E_{all(i)} \times P_i / 2000$$

Where:

 $EM_{act(i)}$  = Total mass of actual NO<sub>x</sub> emissions in tons for a unit.

 $EM_{all(i)}$  = Total mass of allowable NO<sub>x</sub> emissions in tons for a unit.

$$E_{act}$$
 = Actual NO<sub>x</sub> emission rate (lbs/mmBtu or lbs/ton of product) as determined by a performance test, a CEMS continuous emissions monitoring system, or an alternative method approved by the Agency.

$$E_{all}$$
 = Allowable NO<sub>x</sub> emission rate (lbs/mmBtu or lbs/ton of  
product) as provided in Section 217.164, 217.184,  
217.204, 217.224, 217.244, or 217.344, as applicable.  
For an affected industrial boiler subject to Subpart E of  
this Part, or process heater subject to Subpart F of this  
Part, with a rated heat input capacity less than or equal  
to 100 mmBtu/hr demonstrating compliance through an  
emissions averaging plan, the allowable NO<sub>x</sub> emission  
rate is to be determined from a performance test after  
thesuch boiler or heater has undergone combustion  
tuning. For all other units in an emissions averaging  
plan, an uncontrolled NO<sub>x</sub> emission rate from USEPA's  
AP-42, as incorporated by reference in Section 217.104,  
or an uncontrolled NO<sub>x</sub> emission rate as determined by  
an alternative method approved by the Agency, will be  
used.

H = Heat input (mmBtu/ozone season or mmBtu/year) calculated from fuel flow meter and the heating value of the fuel used.

h) On and after May 1, 2025, the total mass of actual NO<sub>x</sub> emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO<sub>x</sub> emissions for those units on a 30-day rolling average basis. The following equation must be used to determine compliance:

$$N_{act} \leq 0.9 N_{all}$$

Where:

$$\underline{N_{act}} \equiv \sum_{i=l}^{n} \sum_{j=l}^{k} EM_{act(i,j)}$$

<u>Where  $N_{act}$  is the total sum of the actual NO<sub>x</sub> mass</u> emissions from units included in the averaging plan for each fuel used (tons per 30-day rolling average basis).

$$\underline{N_{all}} \equiv \sum_{i=l}^{n} \sum_{j=l}^{k} EM_{all(i,j)}$$

Where N<sub>all</sub> is the total sum of the allowable NO<sub>x</sub> mass emissions from units included in the averaging plan for each fuel used (tons per 30-day rolling average basis).

$EM_{act(i)}$	. ≡	Total mass of actual $NO_x$ emissions in tons for a unit as determined in subsection (h)(1) of this Section.
i	Ξ	Subscript denoting an individual unit.
i	Ξ	Subscript denoting the fuel type used.
<u>k</u>	Ξ	Number of different fuel types.
<u>n</u>	Ξ	Number of different units in the averaging plan.
$EM_{all(i)}$	Ξ	Total mass of allowable $NO_x$ emissions in tons for a unit as determined in subsection (h)(2) of this Section.

For each unit in the averaging plan, and each fuel used by the unit, determine actual and allowable NO<sub>x</sub> emissions using the following equations:

<u>1)</u> <u>Actual emissions must be determined as follows:</u>

When emissions limitations are prescribed in lb/mmBtu,

$$EM_{act(i)} \equiv E_{act(i)} \times H_i / 2000$$

When emissions limitations are prescribed in lb/ton of processed product,

$$EM_{act(i)} \equiv E_{act(i)} \times P_i / 2000$$

2) <u>Allowable emissions must be determined as follows:</u>

When emissions limitations are prescribed in lb/mmBtu,

 $EM_{all(i)} \equiv E_{all(i)} \times H_i / 2000$ 

When emissions limitations are prescribed in lb/ton of processed product,

$$\underline{EM}_{all(i)} \equiv \underline{E}_{all(i)} \times \underline{P}_i / 2000$$

Where:

$EM_{act(i)}$	Ξ	Total mass of actual NO <sub>x</sub> emissions in tons for a unit.
$EM_{all(i)}$	Ξ	Total mass of allowable NO <sub>x</sub> emissions in tons for a unit.
E <sub>act</sub>	Ξ	Actual NO <sub>x</sub> emission rate (lbs/mmBtu or lbs/ton of product) as determined by a performance test, a CEMS, a PEMS, or an alternative method approved by the Agency.
E <sub>all</sub>	Ξ	Allowable NO <sub>x</sub> emission rate (lbs/mmBtu or lbs/ton of product) as provided in Section 217.164, 217.184, 217.204, 217.224, 217.244, or 217.344, as applicable. For an affected industrial boiler subject to Subpart E of this Part, or process heater subject to Subpart F of this Part, with a rated heat input capacity less than or equal to 100 mmBtu/hr demonstrating compliance through an emissions averaging plan, the allowable NO <sub>x</sub> emission rate is to be determined from a performance test after thesuch boiler or heater has undergone combustion tuning. For all other units in an emissions averaging plan, an uncontrolled NO <sub>x</sub> emission rate from USEPA's AP-42, as incorporated by reference in Section 217.104, or an uncontrolled NO <sub>x</sub> emission rate as determined by an alternative method approved by the Agency, will be used.

- $\frac{H}{E} = \frac{\text{Heat input (mmBtu/30-day rolling average basis)}}{\text{calculated from fuel flow meter and the heating value of the fuel used.}}$
- $\underline{P} \equiv \underline{\text{weight in tons of processed product.}}$
- ig) An owner or operator of an emission unit subject to Subpart Q of this Part that is located in either one of the areas set forth under Section 217.150(a)(1)(A)(i) or (ii) or Section 217.150(a)(2)(A)(i) or (ii) that is complying through an emissions averaging plan under this Section must comply with the applicable provisions for determining actual and allowable emissions under Section 217.390, the testing and monitoring requirements under Section 217.394, and the recordkeeping and reporting requirements under Section 217.396.
- jh) Until May 1, 2025, the The owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when an emission unit included in the emissions averaging plan is shut down for a maintenance turnaround, provided that the such owner or operator notify the Agency in writing at least 30 days in advance of the shutdown of the emission unit for the maintenance turnaround and the shutdown of the emission unit does not exceed 45 days per ozone season or calendar year and NO<sub>x</sub> pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround.
- **<u>ki</u>**) Until May 1, 2025, the The owner or operator of an emission unit that combusts a combination of coke oven gas and other gaseous fuels and that is located at a source that manufactures iron and steel who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when the coke oven gas desulfurization unit included in the emissions averaging plan is shut down for maintenance, provided that the such owner or operator notify the Agency in writing at least 30 days in advance of the shutdown does not exceed 35 days per ozone season or calendar year and NO<sub>x</sub> pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance period.
- <u>Until May 1, 2025, the The</u> owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when NO<sub>x</sub> pollution control equipment that controls one or more emission units included in the emissions averaging plan is shut down for a maintenance turnaround, provided that:
- 1) the owner or operator notify the Agency in writing, at least 30 days in advance of the shutdown, of the  $NO_x$  pollution control equipment for the maintenance turnaround;
- 2) the shutdown of the NO<sub>x</sub> pollution control equipment does not exceed 45 days per ozone season or calendar year; and
- 3) except for those emission units vented to the NO<sub>x</sub> pollution control equipment undergoing the maintenance turnaround, NO<sub>x</sub> pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

# SUBPART E: INDUSTRIAL BOILERS

#### Section 217.160 Applicability Exemptions

- a) The provisions of Subpart D of this Part and this Subpart apply to all industrial boilers located at sources subject to this Subpart pursuant to Section 217.150, except as provided in subsections (b) and (c) of this Section.
- <u>ab</u>) The provisions of this Subpart do not apply to boilers serving a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, if <u>thesuch</u> boilers meet the applicability criteria under Subpart M of this Part.
- **be**) The provisions of this Subpart do not apply to fluidized catalytic cracking units, their regenerator and associated CO boiler or boilers and CO furnace or furnaces where present, if <u>the</u>such units are located at a petroleum refinery and <u>the</u>such units are required to meet emission limits or control requirements for  $NO_x$  as provided for in an enforceable order.
- c) Before May 1, 2025, the provisions of this Subpart do not apply to an industrial boiler operating under a federally enforceable limit of  $NO_x$  emissions from the boiler to less than 15 tons per year and less than five tons per ozone season.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 217.162 Exemptions (Repealed)

Notwithstanding Section 217.160 of this Subpart, the provisions of this Subpart do not apply to an industrial boiler operating under a federally enforceable limit of NO<sub>\*</sub> emissions from such boiler to less than 15 tons per year and less than five tons per ozone season.

(Source: Repealed at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 217.164 Emissions Limitations

a) Except as provided for under Section 217.152, on and after January 1, 2015, no person shall cause or allow emissions of  $NO_x$  into the atmosphere from any industrial boiler to exceed the following limitations. <u>Until May 1, 2025</u>, <u>complianceCompliance</u> must be demonstrated with the applicable emissions limitation on an ozone season and annual basis. <u>On and after May 1, 2025</u>, <u>compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis</u>.

Fuel	Emission Unit Type and Rated Heat Input Capacity (mmBtu/hr)	NOox Emissions Limitation (lb/mmBtu) or Requirement <u>Before May 1, 2025</u>
Natural Gas or Other Gaseous Fuels	Industrial boiler greater than 100	0.08
	Industrial boiler less than or equal to 100	Combustion tuning
Distillate Fuel Oil	Industrial boiler greater than 100	0.10
	Industrial boiler less than or equal to 100	Combustion tuning
Other Liquid Fuels	Industrial boiler greater than 100	0.15
	Industrial boiler less than or equal to 100	Combustion tuning
Solid Fuel	Industrial boiler greater than 100, circulating fluidized bed combustor	0.12
	Industrial boiler greater than 250	0.18
	Industrial boiler greater than 100 but less than or equal to 250	0.25

Industrial	boiler	less	than	or
equal to 1	00			

Combustion tuning

<u>Fuel</u>	<u>NO<sub>x</sub> Emissions</u> Emission Unit Type and Rated Heat Input Capacity (mmBtu/hr)	Limitations (lb/mmBtu) or Requirement On and after May 1, 2025
Natural Gas or Other Gaseous Fuels	Industrial boiler greater than 50	<u>0.08</u>
	Industrial boiler less than or equal to 50	Combustion tuning
Distillate Fuel Oil	Industrial boiler greater than 50	<u>0.10</u>
	Industrial boiler less than or equal to 50	Combustion tuning
Other Liquid Fuels	Industrial boiler greater than 50	<u>0.15</u>
	Industrial boiler less than or equal to 50	Combustion tuning
Solid Fuel	Industrial boiler greater than 50, circulating fluidized bed combustor	<u>0.10</u>
	Industrial boiler greater than 250	<u>0.15</u>
	Industrial boiler greater than 50 but less than or equal to 250	<u>0.20</u>
	Industrial boiler less than or equal to 50	Combustion tuning

b) For an industrial boiler combusting a combination of natural gas, coke oven gas, and blast furnace gas, the NO<sub>x</sub> emissions limitation <u>mustshall</u> be calculated using the following equation:

NO<sub>x</sub> emissions  
limitation for  
period in  
lb/mmBtu = 
$$\frac{(NO_{x_{NG}} * Btu_{NG}) + (NO_{x_{COG}} * Btu_{COG}) + (NO_{x_{BFG}} * Btu_{BFG})}{Btu_{NG} + Btu_{COG} + Btu_{BFG}}$$

Where:

$NO_{x_{NG}}$	=	0.084 lb/mmBtu for natural gas
$Btu_{NG}$	=	the heat inpu of natural gas in Btu over that period
NO <sub>x cog</sub>	=	0.144 lb/mmBtu for coke oven gas
Btu <sub>cog</sub>	=	the heat input of coke oven gas in Btu over that period
$NO_{x_{BFG}}$	=	0.0288 lb/mmBtu for blast furnace gas
$Btu_{BFG}$	=	the heat input of blast furnace gas in Btu over that period

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 217.166 Methods and Procedures for Combustion Tuning

- a) Until May 1, 2025, the The owner or operator of an industrial boiler subject to the combustion tuning requirements of Section 217.164 must have combustion tuning performed on the boiler at least annually. The combustion tuning must be performed by an employee of the owner or operator or a contractor who has successfully completed a training course on the combustion tuning of boilers firing the fuel or fuels that are fired in the boiler. The owner or operator must maintain the following records that must be made available to the Agency upon request:
  - 1a) The date the combustion tuning was performed;
  - 2b) The name, title, and affiliation of the person who performed the combustion tuning;
  - <u>3</u>e) Documentation demonstrating the provider of the combustion tuning training course, the dates the training course was taken, and proof of successful completion of the training course;
  - 4d) Tune-up procedure followed and checklist of items (such as burners, flame conditions, air supply, scaling on heating surface, etc.) inspected prior to the actual tune-up; and
  - 5e) Operating parameters recorded at the start and at conclusion of combustion tuning.

b) On and after May 1, 2025, the owner or operator of an industrial boiler subject to the combustion tuning requirements of Section 217.164 must have combustion tuning performed on the boiler at least annually. The combustion tuning must be performed in accordance with 40 CFR 63.7540(a)(10)(i) through (vi), as incorporated by reference in Section 217.104.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

# SUBPART F: PROCESS HEATERS

## Section 217.180 Applicability Exemptions

Before May 1, 2025, the provisions of this Subpart do not apply to a process heater operating under a federally enforceable limit of  $NO_x$  emissions from the heater to less than 15 tons per year and less than five tons per ozone season. The provisions of Subpart D of this Part and this Subpart apply to all process heaters located at sources subject to this Subpart pursuant to Section 217.150.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

# Section 217.182 Exemptions (Repealed)

Notwithstanding Section 217.180, the provisions of this Subpart do not apply to a process heater operating under a federally enforceable limit of  $NO_*$  emissions from such heater to less than 15 tons per year and less than five tons per ozone season.

(Source: Repealed at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

## Section 217.184 Emissions Limitations

Except as provided for under Section 217.152, on or after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any process heater to exceed the following limitations. <u>Until May 1, 2025, compliance Compliance</u> must be demonstrated with the applicable emissions limitation on an ozone season and annual basis. <u>On and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.</u>

		$N \underline{O}_{\Theta_X}$ Emissions Limitation
		(lb/mmBtu) or
	Emission Unit Type and Rated	Requirement
Fuel	Heat Input Capacity (mmBtu/hr)	Before May 1, 2025
Natural Gas or Other Gaseous Fuels	Process heater greater than 100	0.08

	Process heater less than or equal to 100	Combustion tuning
Residual Fuel Oil	Process heater greater than 100, natural draft	0.10
	Process heater greater than 100, mechanical draft	0.15
	Process heater less than or equal to 100	Combustion tuning
Other Liquid Fuels	Process heater greater than 100, natural draft	0.05
	Process heater greater than 100, mechanical draft	0.08
	Process heater less than or equal to 100	Combustion tuning
<u>Fuel</u>	Emission Unit Type and Rated Heat Input Capacity (mmBtu/hr)	<u>NO<sub>x</sub> Emissions Limitation</u> ( <u>lb/mmBtu) or</u> <u>Requirement</u> On and after May 1, 2025
Natural Gas or Other Gaseous Fuels	Process heater greater than <u>50</u>	0.08
	Process heater less than or equal to 50	Combustion tuning
Residual Fuel Oil	Process heater greater than 50, natural draft	<u>0.10</u>
	Process heater greater than 50, mechanical draft	<u>0.15</u>
	Process heater less than or equal to 50	Combustion tuning
Other Liquid Fuels	Process heater greater than 50, natural draft	<u>0.05</u>
	Process heater greater than 50, mechanical draft	<u>0.08</u>

Process 1	heater	less	than	or
equal to	50			

Combustion tuning

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

#### Section 217.186 Methods and Procedures for Combustion Tuning

- a) <u>Until May 1, 2025, the The</u> owner or operator of a process heater subject to the combustion tuning requirements of Section 217.184 must have combustion tuning performed on the heater at least annually. The combustion tuning must be performed by an employee of the owner or operator or a contractor who has successfully completed a training course on the combustion tuning of heaters firing the fuel or fuels that are fired in the heater. The owner or operator must maintain the following records that must be made available to the Agency upon request:
  - 1a) The date the combustion tuning was performed;
  - **<u>2</u>**b) The name, title, and affiliation of the person who performed the combustion tuning;
  - <u>3</u>e) Documentation demonstrating the provider of the combustion tuning training course, the dates the training course was taken, and proof of successful completion of the training course;
  - 4d) Tune-up procedure followed and checklist of items (such as burners, flame conditions, air supply, scaling on heating surface, etc.) inspected prior to the actual tune-up; and
  - <u>5</u>e) Operating parameters recorded at the start and at conclusion of combustion tuning.
- b) On and after May 1, 2025, the owner or operator of a process heater subject to the combustion tuning requirements of Section 217.184 must have combustion tuning performed on the heater at least annually. The combustion tuning must be performed in accordance with 40 CFR 63.7540(a)(10)(i) through (vi), as incorporated by reference in Section 217.104.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

## SUBPART G: GLASS MELTING FURNACES

Section 217.200 Applicability Exemptions

Before May 1, 2025, the provisions of this Subpart do not apply to a glass melting furnace operating under a federally enforceable limit of NO<sub>x</sub> emissions from the furnace to less than 15 tons per year and less than five tons per ozone season. The provisions of Subpart D of this Part and this Subpart apply to all glass melting furnaces located at sources subject to this Subpart pursuant to Section 217.150.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

# Section 217.202 Exemptions (Repealed)

Notwithstanding Section 217.200, the provisions of this Subpart do not apply to a glass melting furnace operating under a federally enforceable limit of NO<sub>\*</sub> emissions from such furnace to less than 15 tons per year and less than five tons per ozone season.

(Source: Repealed at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

# Section 217.204 Emissions Limitations

a) On and after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any glass melting furnace to exceed the following limitations. <u>Until May 1, 2025, complianceCompliance</u> must be demonstrated with the emissions limitation on an ozone season and annual basis. <u>On and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.</u>

Product	Emission Unit Type	NO <sub>0</sub> <sub>x</sub> Emissions Limitation (lb/ton glass produced) Before May 1, 2025
Container Glass	Glass melting furnace	5.0
Flat Glass	Glass melting furnace	7.9
Other Glass	Glass melting furnace	11.0

		NO <sub>x</sub> Emissions
		Limitation (lb/ton glass
		produced)
Product	Emission Unit Type	On and after May 1, 2025
Container Glass	Glass melting furnace	<u>4.0</u>

<u>Flat Glass</u>	Glass melting furnace	<u>7.0</u>
Other Glass	Glass melting furnace	4.0

b) <u>Before May 1, 2025, the The</u> emissions during glass melting furnace startup (not to exceed 70 days) or furnace idling (operation at less than 35% of furnace capacity) <u>will shall</u> be excluded from calculations for the purpose of demonstrating compliance with the seasonal and annual emissions limitations under this Section, provided that the owner or operator, at all times, including periods of startup and idling, to the extent practicable, maintain and operate any affected emission unit, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. The owner or operator of a glass melting furnace must maintain records that include the date, time, and duration of any startup or idling in the operation of the glass melting furnace.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

# SUBPART H: CEMENT AND LIME KILNS

## Section 217.220 Applicability Exemptions

Before May 1, 2025, the provisions of this Subpart do not apply to a cement kiln or lime kiln operating under a federally enforceable limit of  $NO_x$  emissions from the kiln to less than 15 tons per year and less than five tons per ozone season.

- a) Notwithstanding Subpart T of this Part, the provisions of Subpart D of this Part and this Subpart apply to all cement kilns located at sources subject to this Subpart pursuant to Section 217.150.
- b) The provisions of Subpart D of this Part and this Subpart apply to all lime kilns located at sources subject to this Subpart pursuant to Section 217.150.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

## Section 217.222 Exemptions (Repealed)

Notwithstanding Section 217.220, the provisions of this Subpart do not apply to a cement kiln or lime kiln operating under a federally enforceable limit of  $NO_*$  emissions from such kiln to less than 15 tons per year and less than five tons per ozone season.

(Source: Repealed at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 217.224 Emissions Limitations

On and after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any cement kiln to exceed the following limitations. Until May 1, 2025, compliance Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis. On and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.

	NO <sub>0x</sub> Emissions Limitation (lb/ton clinker produced)
Emission Unit Type	Before May 1, 2025
Long dry kiln	5.1
Short dry kiln	5.1
Preheater kiln	3.8
Preheater/precalciner kiln	2.8

	NO <sub>x</sub> Emissions Limitation
	<u>(lb/ton clinker produced)</u>
Emission Unit Type	On and after May 1, 2025
Long dry kiln	<u>3.0</u>
Short dry kiln	<u>2.3</u>
Preheater kiln	<u>3.8</u>
Preheater/precalciner kiln	<u>2.8</u>

b) On and after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any lime kiln to exceed the following limitations. Until May 1, 2025, compliance Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis. On and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.

		NO <sub>0</sub> x Emissions Limitation (lb/ton lime
Fuel	Emission Unit Type	produced)
Gas	Rotary kiln	2.2
Coal	Rotary kiln	2.5

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

SUBPART I: IRON AND STEEL AND ALUMINUM MANUFACTURING

a)

## Section 217.240 Applicability Exemptions

Before May 1, 2025, the provisions of this Subpart do not apply to an iron and steel reheat furnace, annealing furnace, or galvanizing furnace, or aluminum reverberatory furnace or crucible furnace operating under a federally enforceable limit of NO<sub>x</sub> emissions from the furnace to less than 15 tons per year and less than five tons per ozone season.

- a) The provisions of Subpart D of this Part and this Subpart apply to all reheat furnaces, annealing furnaces, and galvanizing furnaces used in iron and steel making located at sources subject to this Subpart pursuant to Section 217.150.
- b) The provisions of Subpart D of this Part and this Subpart apply to all reverberatory furnaces and crucible furnaces used in aluminum melting located at sources subject to this Subpart pursuant to Section 217.150.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

## Section 217.242 Exemptions (Repealed)

Notwithstanding Section 217.240, the provisions of this Subpart do not apply to an iron and steel reheat furnace, annealing furnace, or galvanizing furnace, or aluminum reverberatory furnace or erucible furnace operating under a federally enforceable limit of NO<sub>\*</sub> emissions from such furnace to less than 15 tons per year and less than five tons per ozone season.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

#### Section 217.244 Emissions Limitations

a) On and after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any reheat furnace, annealing furnace, or galvanizing furnace used in iron and steel making to exceed the following limitations. <u>Until May 1, 2025, complianceCompliance</u> must be demonstrated with the applicable emissions limitation on an ozone season and annual basis. <u>On and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.</u>

Emission Unit Type	NO <sub>0</sub> x Emissions Limitation (lb/mmBtu) <u>Before May 1, 2025</u>
Reheat furnace, regenerative	0.18
Reheat furnace, recuperative, combusting natural gas	0.09
Reheat furnace, recuperative, combusting a combination of natural gas and coke oven gas	0.142

Reheat furance, cold-air	
Annealing furnace, regenerative	
Annealing furnace, recuperative	0.16
Annealing furance, cold-air	0.07
Galvanizing furnace, regenerative	0.46
Galvanizing furnace, recuperative	0.16
Galvanizing furnace, cold air	

	<u>NO<sub>x</sub> Emissions</u> Limitation (lb/mmBtu)
Emission Unit Type	<u>2025</u>
Reheat furnace, cold air	<u>0.03</u>
Reheat furnace, regenerative and recuperative	<u>0.09</u>
Annealing furnace, cold air	0.07
Annealing furnace, regenerative and recuperative	<u>0.08</u>
Galvanizing furnace, cold air	<u>0.06</u>
<u>Galvanizing furnace, regenerative and</u> recuperative	<u>0.08</u>

b) On and after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any reverberatory furnace or crucible furnace used in aluminum melting to exceed the following limitations. <u>Until May 1, 2025</u>, <u>complianceCompliance</u> must be demonstrated with the applicable emissions limitation on an ozone season and annual basis. <u>On and after May 1, 2025</u>, <u>compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis</u>.

	NO <sub>0x</sub> Emissions
Emission Unit Type	Limitation (lb/mmBtu)
Reverberatory furnace	0.08
Crucible furnace	0.16

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

#### SUBPART M: ELECTRICAL GENERATING UNITS

#### Section 217.340 Applicability and Exemptions

- a) Notwithstanding Subpart V or W of this Part, the provisions of Subpart D of this Part and this Subpart apply to any fossil fuel-fired stationary boiler serving at any time a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, excluding any units listed in Appendix D of this Part, located at sources subject to this Subpart <u>underpursuant to</u> Section 217.150.
- b) Before May 1, 2025, the provisions of this Subpart do not apply to a fossil fuelfired stationary boiler operating under a federally enforceable limit of NO<sub>x</sub> emissions from the boiler to less than 15 tons per year and less than five tons per ozone season.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

#### Section 217.342 Exemptions (Repealed)

- a) Notwithstanding Section 217.340, the provisions of this Subpart do not apply to a fossil fuel fired stationary boiler operating under a federally enforceable limit of NO<sub>\*</sub> emissions from such boiler to less than 15 tons per year and less than five tons per ozone season.
- b) Notwithstanding Section 217.340, the provisions of this Subpart do not apply to a coal-fired stationary boiler that commenced operation before January 1, 2008, that is complying with 35 III. Adm. Code 225.Subpart B through the multi-pollutant standard.
- Notwithstanding Section 217.340, the provisions of this Subpart do not apply to a fossil fuel-fired stationary boiler that is subject to any of the requirements in the combined pollutant standard in 35 Ill. Adm. Code 225.Subpart B (Sections 225.291 through 225.299), regardless of the type of fossil fuel combusted.

(Source: Repealed at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

#### Section 217.344 Emissions Limitations

On and after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any fossil fuel-fired stationary boiler to exceed the following limitations. <u>Until May 1, 2025, compliance Compliance</u> must be demonstrated with the applicable emissions limitation on an ozone season and annual basis. <u>On and after May</u>

<u>1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.</u>

			NO <sub>0x</sub> Emissions
	Fuel	Emission Unit Type	Limitation (lb/mmBtu)
	Solid	Boiler	0.12
	Natural gas	Boiler	0.06
	Liquid	Boiler that commenced operation before January 1, 2008	0.10
		Boiler that commenced operation on or after January 1, 2008	0.08
(	Source: Amended at 48 I	ll. Reg, effective	)

# SUBPART Q: STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES AND TURBINES

#### Section 217.386 Applicability

- a) <u>Before May 1, 2025, the The</u> provisions of this Subpart shall apply to all:
  - 1) Stationary reciprocating internal combustion engines listed in Appendix G of this Part.
  - 2) Stationary reciprocating internal combustion engines and turbines located at a source that emits or has the potential to emit NO<sub>x</sub> in an amount equal to or greater than 100 tons per year and is in either the area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County, or in the area composed of the Metro-East counties of Jersey, Madison, Monroe, and St. Clair, and the Township of Baldwin in Randolph County, where:
    - A) The engine at nameplate capacity is rated at equal to or greater than 500 bhp output; or
    - B) The turbine is rated at equal to or greater than 3.5 MW (4,694 bhp) output at 14.7 psia, 59°F and 60 percent relative humidity.
- b) On and after May 1, 2025, the provisions of this Subpart apply to all:

- 1) Stationary reciprocating internal combustion engines listed in Appendix G of this Part.
- 2) Stationary reciprocating internal combustion engines and turbines located at a source that emits or has the potential to emit  $NO_x$  in an amount equal to or greater than 50 tons per year and is in either the area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County, or in the area composed of the Metro-East counties of Madison, Monroe, and St. Clair, where:
  - <u>A)</u> The engine at nameplate capacity is rated at equal to or greater than 500 bhp output; or
  - B) The turbine is rated at equal to or greater than 3.5 MW (4,694 bhp) output at 14.7 psia, 59°F and 60 percent relative humidity.
- <u>c</u>b) Notwithstanding <u>subsections</u><u>subsection</u> (a)(2) <u>and (b)(2)</u> of this Section, an affected unit is not subject to the requirements of this Subpart Q if the engine or turbine is <u>or has been</u>:
  - 1) Used as an emergency or standby unit as defined by 35 Ill. Adm. Code 211.1920. However, the owner or operator of the unit must comply with the recordkeeping requirement under Section 217.396(a)(13);
  - 2) Used for research or for the purposes of performance verification or testing;
  - 3) Used to control emissions from landfills, where at least 50 percent of the heat input is gas collected from a landfill;
  - 4) Used for agricultural purposes, including the raising of crops or livestock that are produced on site, but not for associated businesses like packing operations, sale of equipment or repair; or
  - 5) An engine with nameplate capacity rated at less than 1,500 bhp (1,118 kW) output, mounted on a chassis or skids, designed to be moveable, and moved to a different source at least once every 12 months.
- <u>de</u>) If an exempt unit ceases to fulfill the criteria specified in subsection ( $\underline{c}b$ ) of this Section, <u>the unit is subject to the control requirements of this Subpart Q</u>, and the owner or operator must notify the Agency in writing within 30 days after becoming aware that the exemption no longer applies and comply with the control requirements of this Subpart Q.

- $\underline{ed}$ ) The requirements of this Subpart Q will continue to apply to any engine or turbine that has ever been subject to the requirements of Section 217.388, even if the affected unit or source ceases to fulfill the rating requirements of subsection (a) or (b) of this Section or becomes eligible for an exemption <u>underpursuant to</u> subsection (<u>c</u>b) of this Section.
- e) Where a construction permit, for which the application was submitted to the Agency prior to the adoption of this Subpart, is issued that relies on decreases in emissions of  $NO_*$  from existing emission units for purposes of netting or emissions offsets, such  $NO_*$  decreases shall remain creditable notwithstanding any requirements that may apply to the existing emissions units pursuant to this Subpart.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

#### Section 217.388 Control and Maintenance Requirements

- a) On and after the applicable compliance date in Section 217.392, an owner or operator of an affected unit must inspect and maintain affected units as required by subsection (a)(4) of this Section and comply with one of the following: the applicable emissions concentration as set forth in subsection (a)(1) of this Section, the requirements for an emissions averaging plan as specified in subsection (a)(2) of this Section, or the requirements for operation as a low usage unit as specified in subsection (a)(3) of this Section.
  - 1) Limits the discharge from an affected unit into the atmosphere of any gases that contain NO<sub>x</sub> to no more than:
    - A) 150 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis) for sparkignited rich-burn engines;
    - B) 210 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis) for sparkignited lean-burn engines, except for existing spark-ignited Worthington engines that are not listed in Appendix G;
    - C) 365 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis) for existing spark-ignited Worthington engines that are not listed in Appendix G;
    - D) <u>Before May 1, 2025, 660 ppmv</u> (corrected to 15 percent O<sub>2</sub> on a dry basis) for diesel engines;

On and after May 1, 2025, 210 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis) for diesel engines that are constructed on and after May 1, 2025;

E) <u>Before May 1, 2025, 42 ppmv</u> (corrected to 15 percent O<sub>2</sub> on a dry basis) for gaseous fuel-fired turbines; and

On and after May 1, 2025, 25 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis) for gaseous fuel-fired turbines;

F) <u>Before May 1, 2025, 96 ppmv</u> (corrected to 15 percent O<sub>2</sub> on a dry basis) for liquid fuel-fired turbines<del>.; and</del>

On and after May 1, 2025, 65 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis) for liquid fuel-fired turbines.

- Complies with an emissions averaging plan as provided for in either subsection (a)(2)(A) or (a)(2)(B) of this Section:
  - A) For any affected unit identified by Section 217.386: The requirements of the applicable emissions averaging plan as set forth in Section 217.390; or
  - B) For units identified in Section 217.386(a)(2). The requirements of an emissions averaging plan adopted <u>underpursuant to</u> any other Subpart of this Part. For <u>thesuch</u> affected engines and turbines the applicable requirements of this Subpart apply, including, <u>but not</u> <u>limited to</u>, calculation of NO<sub>x</sub> allowable and actual emissions rates, compliance dates, monitoring, testing, reporting, and recordkeeping.
- 3) Operates, for units not listed in Appendix G, the affected unit as a low usage unit <u>underpursuant to</u> subsection (a)(3)(A) or (a)(3)(B) of this Section. Low usage units that are not part of an emissions averaging plan are not subject to the requirements of this Subpart Q except for the requirements to inspect and maintain the unit <u>underpursuant to</u> subsection (a)(4) of this Section, test as required by Section 217.394(gf), and retain records <u>underpursuant to</u> Section 217.396(b) and (ed). Either the limitation in subsection (a)(3)(A) or (a)(3)(B) may be <u>used utilized</u> at a source, but not both:
  - A) Before May 1, 2025, the The potential to emit (PTE) is no more than 100 TPY NO<sub>x</sub> aggregated from all engines and turbines located at the source that are not otherwise exempt <u>underpursuant</u> to Section 217.386( $\underline{c}$ b), and not complying with the requirements of subsection (a)(1) or (a)(2) of this Section, and the NO<sub>x</sub> PTE limit is contained in a federally enforceable permit; or
  - B) The aggregate bhp-hrs/MW-hrs from all affected units located at the source that are not exempt <u>underpursuant to</u> Section

217.386( $\underline{c}$ b), and not complying with the requirements of subsection (a)(1) or (a)(2) of this Section, are less than or equal to the bhp-hrs and MW-hrs operation limit listed in subsections (a)(3)(B)(i) and (a)(3)(B)(ii) of this Section. The operation limits of subsections (a)(3)(B)(i) and (a)(3)(B)(i) of this Section must be contained in a federally enforceable permit, except for units that drive a natural gas compressor located at a natural gas compressor station or storage facility. The operation limits are:

- i) 8 mm bhp-hrs or less on an annual basis for engines; and
- ii) 20,000 MW-hrs or less on an annual basis for turbines.
- 4) Inspects and performs periodic maintenance on the affected unit, in accordance with a Maintenance Plan that documents:
  - A) For a unit not located at natural gas transmission compressor station or storage facility, either:
    - i) The manufacturer's recommended inspection and maintenance of the applicable air pollution control equipment, monitoring device, and affected unit; or
    - ii) If the original equipment manual is not available or substantial modifications have been made that require an alternative procedure for the applicable air pollution control device, monitoring device, or affected unit, the owner or operator must establish a plan for inspection and maintenance in accordance with what is customary for the type of air pollution control equipment, monitoring device, and affected unit.
  - B) For a unit located at a natural gas compressor station or storage facility, the operator's maintenance procedures for the applicable air pollution control device, monitoring device, and affected unit.
- b) Owners and operators of affected units may change the method of compliance with this Subpart, as follows:
  - When changing the method of compliance from subsection (a)(3) of this Section to subsection (a)(1) or (a)(2) of this Section, the owner or operator must conduct testing and monitoring according to the requirements of Section 217.394(a) through (fe), as applicable. <u>Before May 1, 2025,</u> <u>forFor</u> this purpose, references to the "applicable compliance date" in Section 217.394(a)(2) and (a)(3) <u>meansshall mean</u> the date by which compliance with subsection (a)(1) or (a)(2) of this Section is to begin.

- 2) An owner or operator of an affected unit that is changing the method of compliance from subsection (a)(1) or (a)(2) of this Section to subsection (a)(3) of this Section must:
  - A) Continue to operate the affected unit's control device, if that unit relied upon a  $NO_x$  emissions control device for compliance with the requirements of subsection (a)(1) or (a)(2) of this Section; and
  - B) Prior to changing the method of compliance to subsection (c) of this Section, complete any outstanding initial performance testing, subsequent performances testing or monitoring as required by Section 217.394(a), (<u>cb</u>), (<u>de</u>), (<u>ed</u>) or (<u>fe</u>) for the affected unit. If the deadline for <u>thesuch</u> testing or monitoring has not yet occurred (e.g., the five-year testing or monitoring sequence has not yet elapsed), the owner or operator must complete the test or monitoring prior to changing the method of compliance to subsection (a)(3) of this Section. After changing the method of compliance to subsection (a)(3) of this Section, no additional testing or monitoring will be required for the affected unit while it is complying with subsection (a)(3) of this Section, except as provided for in Section 217.394(<u>gf</u>).

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

#### Section 217.390 Emissions Averaging Plans

- a) An owner or operator of certain affected units may comply through an emissions averaging plan.
  - 1) A unit or units that commenced operation before January 1, 2002 may be included in only one emissions averaging plan, as follows:
    - A) Units:
      - Located at a single source or at multiple sources in Illinois to address compliance for units identified in Section 217.386(a)(1), so long as the units are owned by the same company or parent company where the parent company has working control through stock ownership of its subsidiary corporations; or
      - Before May 1, 2025, located Located at a single source or at multiple sources in either the Chicago area counties or Metro-East area counties to address compliance for units identified in Section 217.386(a)(2), so long as the units are

owned by the same company or parent company where the parent company has working control through stock ownership of its subsidiary corporations;. On and after May 1, 2025, units located at a single source or at multiple sources all located in either the Chicago area counties or Metro-East area counties to address compliance for units identified in Section 217.386(b)(2), so long as the units are owned by the same company or parent company where the parent company has working control through stock ownership of its subsidiary corporations;

- B) Units that have a compliance date later than the control period for which the averaging plan is being used for compliance;
- C) Units that are not otherwise subject to this Subpart (so long as the units are owned by the same company or parent company where the parent company has working control through stock ownership of its subsidiary corporations) or that the owner or operator may claim as exempt <u>underpursuant to</u> Section 217.386(cb) but does not claim as exempt. For as long as <u>thesuch</u> unit is included in an emissions averaging plan, it will be treated as an affected unit and subject to the applicable emission concentration, limits, testing, monitoring, recordkeeping and reporting requirements; and
- D) Units that comply with the requirements for low usage units set forth in Section 217.388(a)(3), so long as the unit or units operate NO<sub>x</sub> emissions control technology. For as long as <u>thesuch</u> unit is included in an emissions averaging plan, it will be subject to the applicable emission concentration limits in subsection ( $\underline{ig}$ )(7) of this Section, the applicable testing and monitoring requirements for affected units in Section 217.394(a) through ( $\underline{fe}$ ), and the applicable recordkeeping and reporting requirements for affected and low usage units in Section 217.396(a) through ( $\underline{ed}$ ).
- 2) The following types of units may not be included in an emissions averaging plan:
  - A) Units that commence operation after January 1, 2002, unless the unit or units replace a unit or units described in subsection (a)(1) of this Section that commenced operation on or before January 1, 2002, or the unit or units replace a unit or units described in subsection (a)(1) of this Section that replaced a unit or units described in subsection (a)(1) of this Section that replaced a unit or units described in subsection (a)(1) of this Section that commenced operation on or before January 1, 2002. The new unit must be used for the same purpose and have substantially equivalent or less process capacity or be permitted for less NO<sub>x</sub> emissions on annual

basis than the actual  $NO_x$  emissions of the unit or units that are replaced. The owner or operator of a unit that is shut down and replaced must comply with the provisions of Section 217.396(c)(3) before the replacement unit may be included in an emissions averaging plan.

- B) Units that the owner or operator is claiming are exempt <u>underpursuant to</u> Section 217.386(<u>c</u><del>b</del>).
- b) <u>Before May 1, 2025, anAn</u> owner or operator must submit an emissions averaging plan to the Agency by the applicable compliance date set forth in Section 217.392, or by May 1 of the year in which the owner or operator is using a new emissions averaging plan to comply.
  - 1) The plan must include, but is not limited to:
    - A) The list of affected units included in the plan by unit identification number and permit number.
    - B) A sample calculation demonstrating compliance using the methodology provided in subsection ( $\underline{h}$ ) of this Section for both the ozone season and calendar year.
  - 2) The plan will be effective as follows:
    - A) An initial plan for units required to comply by January 1, 2008 is effective January 1, 2008;
    - B) An initial plan for units required to comply by May 1, 2010 is effective May 1, 2010 for those units;
    - C) A new plan submitted <u>underpursuant to</u> subsection (b) of this Section but not submitted by January 1, 2008 or May 1, 2010 is effective retroactively to January 1 of the applicable year;
    - D) An amended plan submitted <u>underpursuant to</u> subsection (<u>de</u>) of this Section is effective retroactively to January 1 of the applicable year; or
    - E) An amended plan submitted <u>underpursuant to</u> subsection (<u>ed</u>) of this Section is effective on the date it is received by the Agency.
- c) On and after May 1, 2025, an owner or operator must submit an emissions averaging plan to the Agency at least 30 days before beginning the use of that plan to demonstrate compliance. The plan must include, but is not limited to the following:

- 1) The list of affected units included in the plan by unit identification number and permit number.
- 2) The applicable  $NO_x$  emissions concentration under Section 217.388(a)(1) for each affected unit.
- 3) <u>A sample calculation demonstrating compliance using the methodology</u> provided in subsection (j) of this Section on a 30-day rolling average basis.
- 4) The date the owner or operator will begin using the emissions averaging plan.
- de) An owner or operator may amend an emissions averaging plan only once per calendar year. An amended plan must include the information from subsection (b)(1) and may change, but is not limited to changing, the group of affected units or reflecting changes in the operation of the affected units. An amended plan must be submitted to the Agency by May 1 of the applicable calendar year and is effective as set forth in subsection (b)(2) of this Section. If an amended plan is not received by the Agency by May 1 of the applicable calendar year, the previous year's plan will be the applicable emissions averaging plan.
- ed) <u>DespiteNotwithstanding</u> subsection (de) of this Section, an owner or operator, and the buyer or seller, if applicable:
  - 1) Must submit an updated emissions averaging plan or plans to the Agency within 60 days if a unit that is listed in an emissions averaging plan is sold or taken out of service.
  - 2) May amend its emissions averaging plan to include another unit within 30 days after discovering that the unit no longer qualifies as an exempt unit <u>underpursuant to</u> Section 217.386(<u>cb</u>) or as a low usage unit <u>underpursuant to</u> Section 217.388(a)(3).
  - 3) May submit an updated emissions averaging plan or plans to the Agency within 60 days after purchasing a new unit to include the new unit.
- fe) <u>Until May 1, 2025, anAn</u> owner or operator must:
  - Demonstrate compliance for both the ozone season (May 1 through September 30) and the calendar year (January 1 through December 31) by using the methodology and the units listed in the most recent emissions averaging plan submitted to the Agency <u>underpursuant to</u> subsection (b), (<u>de</u>), or (<u>ed</u>) of this Section; the higher of the monitoring or test data

determined <u>underpursuant to</u> Section 217.394; and the actual hours of operation for the applicable control period;

- 2) Notify the Agency by October 31 following the ozone season, if compliance cannot be demonstrated for that ozone season; and
- Submit to the Agency by January 31 following each calendar year, a compliance report containing the information required by Section 217.396(c)(4).
- g) On and after May 1, 2025, an owner or operator must:
  - 1) Demonstrate compliance on a 30-day rolling average basis by using the methodology and the units listed in the most recent emissions averaging plan submitted to the Agency under subsection (c), (d), or (e) of this Section; the higher of the monitoring or test data determined under Section 217.394; and the actual hours of operation for the applicable averaging plan period.
  - 2) Submit to the Agency by January 31 following each calendar year, a compliance report containing the information required by Section 217.396(c)(5).
- <u>h</u>f) <u>Until May 1, 2025, the The</u> total mass of actual  $NO_x$  emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable  $NO_x$  emissions for those units for both the ozone season and calendar year. The following equation must be used to determine compliance:

$$N_{act} \leq N_{all}$$

Where:

$$\mathbf{N}_{\mathrm{act}} = \sum_{i=1}^{n} EM_{act(i)}$$

$$\mathbf{N}_{\text{all}} = \sum_{i=1}^{n} EM_{all(i)}$$

- $N_{act}$  = Total sum of the actual NO<sub>x</sub> mass emissions from units included in the averaging plan for each fuel used (lbs per ozone season and calendar year).
- $N_{all}$  = Total sum of the allowable  $NO_x$  mass emissions from units included in the averaging plan for each fuel used (lbs per ozone season and calendar year).

- $EM_{all(i)}$  = Total mass of allowable NO<sub>x</sub> emissions in lbs for a unit as determined in subsection (g)(2) or (h)(2) of this Section.
- $EM_{act(i)}$  = Total mass of actual NO<sub>x</sub> emissions in lbs for a unit as determined in subsection (g)(1) or (h)(1) of this Section.
- i = Subscript denoting an individual unit and fuel used.
- n = Number of different units in the averaging plan.
- <u>ig</u>) <u>Until May 1, 2025, for For</u> each unit in the averaging plan, and each fuel used by a unit, determine actual and allowable  $NO_x$  emissions using the following equations, except as provided for in subsection (<u>l</u><del>h</del>) of this Section:
  - 1) Actual emissions must be determined as follows:

$$EM_{act(i)} = E_{act(i)} \times H_i$$

$$E_{act(i)} = \frac{\sum_{j=1}^{m} C_{d(act(j))} \times F_d \times \left(\frac{20.9}{20.9 - \%O_{2d(j)}}\right)}{m}$$

2) Allowable emissions must be determined as follows:

$$EM_{all(i)} = E_{all(i)} \times H_i$$

$$E_{all(i)} = \frac{\sum_{j=1}^{m} C_{d(all(j))} \times F_d \times \left(\frac{20.9}{20.9 - \%O_{2d(j)}}\right)}{m}$$

Where:

- $EM_{act(i)}$ = Total mass of actual NO<sub>x</sub> emissions in lbs for a unit, except as provided for in subsections (<u>ig</u>)(3) and (<u>ig</u>)(5) of this Section.
- $EM_{all(i)}$  = Total mass of allowable NO<sub>x</sub> emissions in lbs for a unit, except as provided for in subsection (ig)(3) of this Section.
- $E_{act}$  = Actual NO<sub>x</sub> emission rate (lbs/mmBtu) calculated according to the above equation.
- $E_{all}$  = Allowable NO<sub>x</sub> emission rate (lbs/mmBtu) calculated according to the above equation, as applicable.
- H = Heat input (mmBtu/ozone season or mmBtu/year) calculated from fuel flow meter and the heating value of the fuel used.

- $C_{d(act)}$  = Actual concentration of NO<sub>x</sub> in lb/dscf (ppmv x 1.194 x10<sup>-7</sup>) on a dry basis for the fuel used. Actual concentration is determined on each of the most recent test runs or monitoring passes performed <u>underpursuant to</u> Section 217.394, whichever is higher.
- $C_{d(all)}$  = Allowable concentration of NO<sub>x</sub> in lb/dscf (allowable emission limit in ppmv specified in Section 217.388(a)(1), except as provided for in subsection (ig)(4), (ig)(5), (ig)(6), or (ig)(7) of this Section, if applicable, multiplied by 1.194 x  $10^{-7}$ ) on a dry basis for the fuel used.
- $F_d$  = The ratio of the gas volume of the products of combustion to the heat content of the fuel (dscf/mmBtu) as given in the table of F Factors included in 40 CFR 60, appendix A, Method 19 or as determined using 40 CFR 60, appendix A, Method 19.
- $%O_{2d}$  = Concentration of oxygen in effluent gas stream measured on a dry basis during each of the applicable tests or monitoring runs used for determining emissions, as represented by a whole number percent, e.g., for 18.7%O<sub>2d</sub>, 18.7 would be used.
  - = Subscript denoting an individual unit and the fuel used.
  - = Subscript denoting each test run or monitoring pass for an affected unit for a given fuel.
- m = The number of test runs or monitoring passes for an affected unit using a given fuel.
- 3) For a replacement unit that is electric-powered, the allowable NO<sub>x</sub> emissions from the affected unit that was replaced should be used in the averaging calculations and the actual NO<sub>x</sub> emissions for the electric-powered replacement unit (EM<sub>act elec(i)</sub>) are zero. Allowable NO<sub>x</sub> emissions for the electric-powered replacement are calculated using the actual total bhp-hrs generated by the electric-powered replacement unit on an ozone season and on an annual basis multiplied by the allowable NO<sub>x</sub> emissions from an electric-powered replacement unit (EM<sub>all elec(i)</sub>) must be determined by multiplying the nameplate capacity of the unit by the hours operated during the ozone season or annually and the allowable NO<sub>x</sub> emission rate of the replaced unit (E<sub>all rep</sub>) in lb/mmBtu converted to lb/bhp-hr. For this calculation the following equation should be used:

$$EM_{all \ elec(i)} = bhp \times OP \times F \times E_{all \ rep(i)}$$

Where:

i

j

EMall elec(i)	=	Mass of allowable NO <sub>x</sub> emissions from the electric- powered replacement unit in pounds per ozone season or calendar year.
bhp	=	Nameplate capacity of the electric-powered replacement unit in brake horsepower.
OP	=	Operating hours during the ozone season or calendar year.
F	=	Conversion factor of 0.0077 mmBtu/bhp-hr.
$E_{all  rep(i)}$	=	Allowable NO <sub>X</sub> emission rate (lbs/mmBtu) of the replaced unit.
i	=	Subscript denoting an individual electric unit and the fuel used.

- 4) For a replacement unit that is not electric, the allowable NO<sub>x</sub> emissions rate used in the above equations set forth in subsection ( $\underline{ig}$ )(2) of this Section must be the higher of the actual NO<sub>x</sub> emissions as determined by testing or monitoring data or the applicable uncontrolled NO<sub>x</sub> emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104 for the unit that was replaced.
- 5) For a unit that is replaced with purchased power, the allowable  $NO_x$ emissions rate used in the equations set forth in subsection (ig)(2) of this Section must be the emissions concentration set forth in Section 217.388(a)(1) or subsection (ig)(6) of this Section, when applicable, for the type of unit that was replaced. For owners or operators replacing units with purchased power, the annual hours of operations that must be used are the calendar year hours of operation for the unit that was shut down, averaged over the three-year period prior to the shutdown. The actual  $NO_x$  emissions for the units replaced by purchased power ( $EM_{(i)act}$ ) are zero. These units may be included in any emissions averaging plan for no more than five years beginning with the calendar year that the replaced unit is shut down.
- 6) For units that have a later compliance date, allowable emissions rate used in the equations set forth in subsection (ig)(2) of this Section must be:
  - A) Prior to the applicable compliance date <u>underpursuant to</u> Section 217.392, the higher of the actual NO<sub>x</sub> emissions as determined by testing or monitoring data or the applicable uncontrolled NO<sub>x</sub> emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Areas Sources, as incorporated by reference in Section 217.104; or

- B) On and after the unit's applicable compliance date <u>underpursuant to</u> Section 217.392, the applicable emissions concentration for that type of unit <u>underpursuant to</u> Section 217.388(a)(1).
- 7) For a low usage unit complying with the requirements of Section 217.388(a)(3) and used in an emissions averaging plan, the allowable NO<sub>x</sub> emissions rate used in the above equations set forth in subsection (<u>ig</u>)(2) of this Section must be the higher of the actual NO<sub>x</sub> emissions as determined by testing or monitoring data or the applicable uncontrolled NO<sub>x</sub> emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104.
- j) On and after May 1, 2025, the total mass of actual NO<sub>x</sub> emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO<sub>x</sub> emissions for those units on a 30-day rolling average basis. The following equation must be used to determine compliance:

$$N_{act} \leq 0.9 N_{all}$$

Where:

$$\underline{\mathbf{N}_{\mathrm{act}}} = \sum_{i=1}^{n} EM_{act(i)}$$

$$\underline{\mathbf{N}_{all}} = \sum_{i=1}^{n} EM_{all(i)}$$

- $\frac{N_{act}}{the averaging plan for each fuel used (lbs per 30-day rolling average basis).}$
- $\frac{N_{all}}{I_{all}} \equiv \frac{Total sum of the allowable NO_x mass emissions from units}{I_{all} included in the averaging plan for each fuel used (lbs per 30-day)}{I_{all} rolling average basis).}$
- $\underline{EM}_{all(i)} \equiv \underline{Total \text{ mass of allowable NO}_x \text{ emissions in lbs for a unit as}}_{determined in subsection (k)(2) or (l)(2) of this Section.}$
- $\underline{EM}_{act(i)} \equiv \underline{Total \ mass \ of \ actual \ NO_x \ emissions \ in \ lbs \ for \ a \ unit \ as \ determined}}_{in \ subsection \ (k)(1) \ or \ (l)(1) \ of \ this \ Section.}$
- $\underline{i} = \underline{Subscript denoting an individual unit and fuel used.}$
- <u>n</u> = <u>Number of different units in the averaging plan.</u>

- <u>N</u> On and after May 1, 2025, for each unit in the averaging plan, and each fuel used by a unit, determine actual and allowable NO<sub>x</sub> emissions using the following equations, except as provided for in subsection (1) of this Section:
  - 1) Actual emissions must be determined as follows:

$$EM_{act(i)} = E_{act(i)} \times H_i$$

$$E_{act(i)} = \frac{\sum_{j=1}^{m} C_{d(act(j))} \times F_d \times \left(\frac{20.9}{20.9 - \%O_{2d(j)}}\right)}{m}$$

2) Allowable emissions must be determined as follows:

$$EM_{all(i)} = E_{all(i)} \times H_{all(i)}$$

$$E_{all(i)} = \frac{\sum_{j=1}^{m} C_{d(all(j))} \times F_d \times \left(\frac{20.9}{20.9 - \%O_{2d(j)}}\right)}{m}$$

Where:

 $EM_{act(i)}$  = Total mass of actual NO<sub>x</sub> emissions in lbs for a unit, except as provided for in subsections (k)(3) and (k)(5) of this Section.  $EM_{all(i)}$  = Total mass of allowable NO<sub>x</sub> emissions in lbs for a unit, except as provided for in subsection (k)(3) of this Section. = Actual NO<sub>x</sub> emission rate (lbs/mmBtu) calculated according <u>Eact</u> to the above equation. <u>= Allowable NO<sub>x</sub> emission rate (lbs/mmBtu) calculated</u> <u>Eall</u> according to the above equation, as applicable. Η = Heat input (mmBtu/30-day rolling average basis) calculated from fuel flow meter and the heating value of the fuel used.  $\underline{C}_{d(act)} \equiv \underline{Actual concentration} \text{ of NO}_{x} \text{ in lb/dscf (ppmv x 1.194 x10^{-7})}$ on a dry basis for the fuel used. Actual concentration is determined on each of the most recent test runs or monitoring passes performed under Section 217.394, whichever is higher.

- $\underline{C}_{d(all)} \equiv \underline{Allowable \ concentration \ of \ NO_x \ in \ lb/dscf \ (allowable \\ \underline{emission \ limit \ in \ ppmv \ specified \ in \ Section \ 217.388(a)(1), \\ \underline{except \ as \ provided \ for \ in \ subsection \ (k)(4), \ (k)(5), \ (k)(6), \ or \\ \underline{(k)(7) \ of \ this \ Section, \ if \ applicable, \ multiplied \ by \ 1.194 \ x \ 10^{-} \\ \underline{7}) \ on \ a \ dry \ basis \ for \ the \ fuel \ used.}$
- $\underline{F}_{d} \equiv \underline{The ratio of the gas volume of the products of combustion to} \\ \underline{F}_{d} \equiv \underline{The ratio of the gas volume of the products of combustion to} \\ \underline{F}_{d} = \underline{The ratio of the gas volume of the products of combustion to} \\ \underline{F}_{d} = \underline{The ratio of the gas volume of the products of combustion to} \\ \underline{F}_{d} = \underline{F}_{d}$
- $\frac{\%O_{2d}}{M} \equiv \frac{\text{Concentration of oxygen in effluent gas stream measured on}}{\text{a dry basis during each of the applicable tests or monitoring}} \\ \frac{\text{runs used for determining emissions, as represented by a}}{\text{whole number percent, e.g., for 18.7%O_{2d}, 18.7 would be}} \\ \frac{\text{used.}}{M}$

= Subscript denoting an individual unit and the fuel used.

- $= \frac{\text{Subscript denoting each test run or monitoring pass for an}}{\text{affected unit for a given fuel.}}$
- $\underline{m} \equiv \underline{\text{The number of test runs or monitoring passes for an affected}}$ unit using a given fuel.
- 3) For a replacement unit that is electric-powered, the allowable NO<sub>x</sub> emissions from the affected unit that was replaced should be used in the averaging calculations and the actual NO<sub>x</sub> emissions for the electricpowered replacement unit (EM<sub>act elec(i)</sub>) are zero. Allowable NO<sub>x</sub> emissions for the electric-powered replacement are calculated using the actual total bhp-hrs generated by the electric-powered replacement unit during a 30-day rolling average period multiplied by the allowable NO<sub>x</sub> emission rate in lb/bhp-hr of the replaced unit. The allowable mass of NO<sub>x</sub> emissions from an electric-powered replacement unit (EM<sub>all elec(i)</sub>) must be determined by multiplying the nameplate capacity of the unit by the hours operated during a 30-day rolling average period and the allowable NO<sub>x</sub> emission rate of the replaced unit (E<sub>all rep</sub>) in lb/mmBtu converted to lb/bhp-hr. For this calculation the following equation should be used:

$$\textit{EM}_{\textit{all elec(i)}} = bhp \times OP \times F \times E_{\textit{all rep(i)}}$$

Where:

<u>i</u> i

$\underline{EM}_{all elec(i)} \equiv$		Mass of allowable NO <sub>x</sub> emissions from the electric-	
		powered replacement unit in pounds per 30-day rolling	
		average period.	
<u>bhp</u>	Ξ	Nameplate capacity of the electric-powered	
		replacement unit in brake horsepower.	

- <u>OP</u> = <u>Operating hours during the 30-day rolling average</u> <u>period.</u>
- <u>F</u>  $\equiv$  <u>Conversion factor of 0.0077 mmBtu/bhp-hr.</u>
- $\underline{E}_{all rep(i)} \equiv \underline{Allowable NO_X emission rate (lbs/mmBtu) of the}_{replaced unit.}$
- $\underline{i} \equiv \underline{Subscript denoting an individual electric unit and the fuel used.}$
- <u>For a replacement unit that is not electric, the allowable NO<sub>x</sub> emissions rate used in the above equations set forth in subsection (k)(2) of this Section must be the higher of the actual NO<sub>x</sub> emissions as determined by testing or monitoring data or the applicable uncontrolled NO<sub>x</sub> emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104, for the unit that was replaced.
  </u>
- 5) For a unit that is replaced with purchased power, the allowable NO<sub>x</sub> emissions rate used in the equations set forth in subsection (k)(2) of this Section must be the emissions concentration set forth in Section 217.388(a)(1) or subsection (k)(6) of this Section, when applicable, for the type of unit that was replaced. For owners or operators replacing units with purchased power, the annual hours of operations that must be used are the calendar year hours of operation for the unit that was shut down, averaged over the three-year period prior to the shutdown. The actual NO<sub>x</sub> emissions for the units replaced by purchased power (EM<sub>(i)act</sub>) are zero. These units may be included in any emissions averaging plan for no more than five years beginning with the calendar year that the replaced unit is shut down.
- 6) For units that have a later compliance date, allowable emissions rate used in the equations set forth in subsection (k)(2) of this Section must be:
  - <u>A)</u> Prior to the applicable compliance date <u>under</u> Section 217.392, the higher of the actual NO<sub>x</sub> emissions as determined by testing or monitoring data or the applicable uncontrolled NO<sub>x</sub> emissions factor from Compilation of Air Pollutant Emission Factors: <u>AP-42</u>, Volume I: Stationary Point and Areas Sources, as incorporated by reference in Section 217.104; or
  - B) On and after the unit's applicable compliance date <u>under</u> Section 217.392, the applicable emissions concentration for that type of <u>unit under</u> Section 217.388(a)(1).
- <u>For a low usage unit complying with the requirements of Section</u>
   217.388(a)(3) and used in an emissions averaging plan, the allowable NO<sub>x</sub>

emissions rate used in the above equations set forth in subsection (k)(2) of this Section must be the higher of the actual NO<sub>x</sub> emissions as determined by testing or monitoring data or the applicable uncontrolled NO<sub>x</sub> emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104.

- <u>Ih</u>) <u>Until May 1, 2025, for For</u> units that use CEMS, the data must show that the total mass of actual NO<sub>x</sub> emissions determined <u>underpursuant to</u> subsection (<u>Ih</u>)(1) of this Section is less than or equal to the allowable NO<sub>x</sub> emissions calculated in accordance with the equations in subsections (<u>Ih</u>) and (<u>Ih</u>)(2) of this Section for both the ozone season and calendar year. The equations in subsection (g) of this Section will not apply. <u>On and after May 1, 2025, for units that use CEMS, the data must show that the total mass of actual NO<sub>x</sub> emissions determined <u>under subsection (I)(1) of this Section is less than or equal to the total mass of allowable NO<sub>x</sub> emissions calculated in accordance with the equations in subsections (j) and (I)(2) of this Section for each 30-day rolling average period. The equations in subsection (k) of this Section will not apply.</u></u>
  - 1) The total mass of actual NO<sub>x</sub> emissions in lbs for a unit (EM<sub>act</sub>) must be the sum of the total mass of actual NO<sub>x</sub> emissions from each affected unit using CEMS data collected in accordance with 40 CFR 60 or 75, or alternate methodology that has been approved by the Agency or USEPA and included in a federally enforceable permit.
  - 2) The allowable  $NO_x$  emissions must be determined as follows:

$$EM_{all(i)} = \sum_{j=1}^{m} (Cd_j \times flow_j \times 1.194 \times 10^{-7})$$

Where:

EM <sub>all(i)</sub>	= Total mass of allowable $NO_x$ emissions in lbs for a unit.
flow <sub>ji</sub>	= Stack flow (dscf/hr) for a given stack.
$Cd_j$	= Allowable concentration of NO <sub>x</sub> (ppmv) specified in Section 217.388(a)(1) for a given stack (1.194 x $10^{-7}$ converts to lb/dscf).
j	= subscript denoting each hour operation of a given unit.
m	= Total number of hours of operation of a unit.
i	= Subscript denoting an individual unit and the fuel used.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

Section 217.392 Compliance and 30-Day Rolling Average Basis

- a) On and after January 1, 2008, an owner or operator of an affected engine listed in Appendix G may not operate the affected engine unless the requirements of this Subpart Q are met.
- b) On and after May 1, 2010, an owner or operator of a unit identified by Section 217.386(a)(2), and that is not listed in Appendix G, may not operate the affected unit unless the requirements of this Subpart Q are met or the affected unit is exempt <u>underpursuant to Section 217.386(cb)</u>.
- <u>C)</u> On and after May 1, 2025, an owner or operator of a stationary internal combustion engine or turbine subject to this Subpart Q must not operate the affected engine or turbine unless the requirements of this Subpart Q are met. Compliance must be demonstrated with the applicable emissions concentration or emissions averaging plan on a 30-day rolling average basis. A 30-day rolling average consists of 30 operating days where an operating day is a calendar day in which any subject emission unit combusts any fuel. Compliance with the 30-day rolling average for units that have conducted an initial performance test under Section 217.394(a) or installed and operated a CEMS under Section 217.394(f) must be demonstrated 30 operating days after May 1, 2025. A 30-day rolling average is calculated using the total mass of emissions from the period and the total volume of products of combustion in the period.
- <u>de</u>) <u>Before May 1, 2025, owners</u> and operators of an affected unit may use NO<sub>x</sub> allowances to meet the compliance requirements in Section 217.388 as specified in this subsection (<u>de</u>). A NO<sub>x</sub> allowance is defined as an allowance used to meet the requirements of a NO<sub>x</sub> trading program in which the State of Illinois participates where one allowance is equal to one ton of NO<sub>x</sub> emissions.
  - 1)  $NO_x$  allowances may be used only under the following circumstances:
    - A) An anomalous or unforeseen operating scenario inconsistent with historical operations for a particular ozone season or calendar year that causes an exceedance of an emissions or operating hour limitation;
    - B) To achieve compliance for no more than two events in any rolling five-year period;
    - C) If the anomalous or unforeseen operating scenario occurs during an ozone season, it counts as a single event for purposes of the calendar year even if there is an exceedance of both an ozone season emission limitation and an annual emissions limitation as a result of <u>thesuch</u> operating scenario; and
    - D) For a unit that is not listed in Appendix G.

- 2) The owner or operator of the affected unit must surrender to the Agency a  $NO_x$  allowance for each ton or portion of a ton of  $NO_x$  by which actual emissions exceed allowed emissions, as follows:
  - A) Where a low usage limitation under Section 217.388(a)(3)(B) has been exceeded, the owner or operator of the affected unit must calculate the NO<sub>x</sub> emissions resulting from the number of hours that exceeded the operating hour low usage limit and surrender to the Agency one NO<sub>x</sub> allowance for each ton or portion of a tin of NO<sub>x</sub> that was calculated.
  - B) For noncompliance with a limitation in an emissions averaging plan that includes low usage units, the owner or operator of the affected low usage unit must calculate the  $NO_x$  emissions using the applicable allowable emissions concentration from Section 217.388(a)(1).
  - C) For noncompliance with a seasonal limit in Section 217.388(a)(2), only a NO<sub>x</sub> ozone season allowance must be used.
  - D) For noncompliance with the emissions concentration limits in Section 217.388(a)(1), low usage limitations in Section 217.388(a)(3) or an annual limitation in an emissions averaging plan in Section 217.388(a)(2), only a NO<sub>x</sub> annual allowance may be used.
  - E) Despite Notwithstanding the provisions of subsections ( $\underline{de}$ )(2)(C) and ( $\underline{de}$ )(2)(D) of this Section, if a NO<sub>x</sub> annual trading program does not exist, a NO<sub>x</sub> ozone season allowance may be used for noncompliance with the emissions concentration limits in Section 217.388(a)(1), low usage limitations in Section 217.388(a)(3) or an annual limitation in an emissions averaging plan in Section 217.388(a)(2).
- 3) The owner or operator must submit a report documenting the circumstances that required the use of  $NO_x$  allowances and identify what actions will be taken in subsequent years to address these circumstances and must transfer the  $NO_x$  allowances to the Agency's federal  $NO_x$  retirement account. The report and the transfer of allowances must be submitted by October 31 for exceedances during the ozone season and March 1 for exceedances of the emissions concentration limits, the annual emissions averaging plan limits, or low usage limitations. The report must contain the NATS serial numbers of the  $NO_x$  allowances.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

#### Section 217.394 Testing and Monitoring

- a) <u>Before May 1, 2025, anAn</u> owner or operator must conduct an initial performance test <u>underpursuant to</u> subsection ( $\underline{de}$ )(1) or ( $\underline{de}$ )(2) of this Section as follows:
  - By January 1, 2008, for affected engines listed in Appendix G. Performance tests must be conducted on units listed in Appendix G, even if the unit is included in an emissions averaging plan <u>underpursuant to</u> Section 217.388(a)(2).
  - 2) By the applicable compliance date set forth in Section 217.392, or within the first 876 hours of operation per calendar year, whichever is later:
    - A) For affected units not listed in Appendix G that operate more than 876 hours per calendar year; and
    - B) For units that are not affected units that are included in an emissions averaging plan and operate more than 876 hours per calendar year.
  - 3) Once within the five-year period after the applicable compliance date as set forth in Section 217.392 or once within the five-year period following the date the unit commenced operation:
    - A) For affected units that operate fewer than 876 hours per calendar year; and
    - B) For units that are not affected units that are included in an emissions averaging plan and that operate fewer than 876 hours per calendar year.
- <u>b</u>) On and after May 1, 2025, an owner or operator of a reciprocating internal combustion engine or turbine, including those that are part of an emissions averaging plan, must either conduct performance testing or install and operate a CEMS in compliance with the requirements in this Section, as applicable, unless the engine or turbine operates as a low usage unit under Section 217.388(a)(3)(B). An owner or operator must conduct an initial performance test <u>under</u> subsection (d)(1) or (d)(2) of this Section. Performance testing of NOx emissions for engines and turbines for which construction or modification occurs after May 1, 2025, must be conducted within 60 days after achieving maximum operating rate but no later than 180 days after initial startup of the new or modified engine or turbine, in accordance with this Section.

- - <u>AffectedFor affected</u> engines listed in Appendix G and all units included in an emissions averaging plan, <u>must conduct a performance test at the</u> <u>owner or operator's own expense</u> once every five years. Testing must be performed in the calendar year by May 1 or within 60 days after starting operation, whichever is later;
  - 2) If the monitored data shows that the unit is not in compliance with the applicable emissions concentration or emissions averaging plan, the owner or operator must report the deviation to the Agency in writing within 30 days and conduct a performance test <u>underpursuant to</u> subsection (<u>de</u>) of this Section within 90 days of the determination of noncompliance; and
  - 3) When, in the opinion of the Agency or USEPA, it is necessary to conduct testing to demonstrate compliance with Section 217.388, the owner or operator of a unit must, at his or her own expense, conduct the test in accordance with the applicable test methods and procedures specified in this Section within 90 days after receipt of a notice to test from the Agency or USEPA.
- <u>de</u>) Testing Procedures:
  - For an engine: The owner or operator must conduct a performance test using Method 7 or 7E of 40 CFR 60, appendix A<u>-4</u>, as incorporated by reference in Section 217.104. Each compliance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO<sub>x</sub> emissions must be measured while the affected unit is operating at peak load. If the unit combusts more than one type of fuel (gaseous or liquid), including backup fuels, a separate performance test is required for each fuel.
  - 2) For a turbine: The owner or operator must conduct a performance test using the applicable procedures and methods in 40 CFR 60.4400, as incorporated by reference in Section 217.104.
- ed) Monitoring: Except for those years in which a performance test is conducted <u>underpursuant to</u> subsection (a), (b), or (c) of this Section, the owner or operator of an affected unit or a unit included in an emissions averaging plan must monitor NO<sub>x</sub> concentrations annually, once between January 1 and May 1 or within the first 876 hours of operation per calendar year, whichever is later. If annual operation is less than 876 hours per calendar year, each affected unit must be monitored at least once every five years. Monitoring must be performed as follows:

- A portable NO<sub>x</sub> monitor utilizing method ASTM D6522-<u>2000</u>, as incorporated by reference in Section 217.104, or a method approved by the Agency must be used. If the engine or turbine combusts both liquid and gaseous fuels as primary or backup fuels, separate monitoring is required for each fuel.
- 2) NO<sub>x</sub> and O<sub>2</sub> concentrations measurements must be taken three times for a duration of at least 20 minutes. Monitoring must be done at highest achievable load. The concentrations from the three monitoring runs must be averaged to determine whether the affected unit is in compliance with the applicable emissions concentration or emissions averaging plan, as specified in Section 217.388.
- fe) Instead of complying with the requirements of subsections (a), (b), (c), and (d) and (e) of this Section, an owner or operator may install and operate a CEMS on an affected unit that meets the applicable requirements of 40 CFR 60, subpart A and appendix B, or 40 CFR 75, incorporated by reference in Section 217.104, and complies with the quality assurance procedures specified in 40 CFR 60, appendix F or 40 CFR 75, as incorporated by reference in Section 217.104, or an alternate procedure as approved by the Agency or USEPA in a federally enforceable permit. <u>Until May 1, 2025, the The</u> CEMS must be used to demonstrate compliance with the applicable emissions concentration or emissions averaging plan only on an ozone season and annual basis. <u>On and after May 1, 2025, the</u> <u>CEMS must be used to demonstrate compliance with the applicable emissions concentration or emissions averaging plan only on a 30-day rolling average basis.</u>
- gf) The testing and monitoring requirements of this Section do not apply to affected units in compliance with the requirements of the low usage limitations <u>underpursuant to</u> Section 217.388(a)(3) or low usage units using NO<sub>\*</sub> allowances to comply with the requirements of this Subpart pursuant to Section 217.392(c), unless <u>thesuch</u> units are included in an emissions averaging plan. <u>Despite</u> <u>Notwithstanding</u>the above circumstances, when, in the opinion of the Agency or USEPA, it is necessary to conduct testing to demonstrate compliance with Section 217.388, the owner or operator of a unit must, at his or her own expense, conduct the test in accordance with the applicable test methods and procedures specified in this Section within 90 days after receipt of a notice to test from the Agency or USEPA.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)

## Section 217.396 Recordkeeping and Reporting

a) Recordkeeping. The owner or operator of any unit included in an emissions averaging plan (e.g., affected units, nonsubject units, units that could be exempt <u>underpursuant to</u> Section 217.386(<u>c</u><del>b</del>), and low usage units) or an affected unit that is not exempt <u>underpursuant to</u> Section 217.386(<u>c</u><del>b</del>) and is not subject to the
low usage exemption of Section 217.388(a)(3) must maintain records that demonstrate compliance with the requirements of this Subpart Q, which include, but are not limited to:

- 1) Identification, type (e.g., lean-burn, gas-fired), and location of each unit.
- 2) Calendar date of the record.
- 3) <u>Before May 1, 2025, the The</u> number of hours the unit operated on a monthly basis and during each ozone season. <u>On and after May 1, 2025, daily operating hours.</u>
- 4) Type and quantity of the fuel used on a daily basis.
- 5) On and after May 1, 2025, total mass emissions on a daily basis and on a 30-day rolling average basis.
- $\underline{65}$ ) The results of all monitoring performed on the unit and reported deviations.
- $\underline{76}$  The results of all tests performed on the unit.
- $\underline{87}$ ) The plan for performing inspection and maintenance of the units, air pollution control equipment, and the applicable monitoring device <u>underpursuant to</u> Section 217.388(a)(4).
- **<u>98</u>**) A log of inspections and maintenance performed on the unit's air emissions, monitoring device, and air pollution control device. These records must include, at a minimum, date, load levels and any manual adjustments, along with the reason for the adjustment (e.g., air to fuel ratio, timing or other settings).
- <u>109</u>) <u>Before May 1, 2025, if <u>If</u> complying with the emissions averaging plan provisions of Sections 217.388(a)(2) and 217.390, copies of the calculations used to demonstrate compliance with the ozone season and annual control period limits, noncompliance reports for the ozone season, and ozone and annual control period compliance reports submitted to the Agency.</u>
- 11140) Identification of time periods for which operating conditions and pollutant data were not obtained by either the CEMS or alternate monitoring procedures, including the reasons for not obtaining sufficient data and a description of corrective actions taken.
- <u>12</u>+1) Any NO<sub>x</sub> allowance reconciliation reports submitted <u>underpursuant to</u> Section 217.392(<u>de</u>)(3).

- 13) If the engine or turbine is used as an emergency or standby unit, records documenting the annual hours of operation of these units in nonemergency situations.
- b) The owner or operator of an affected unit or unit included in an emissions averaging plan must maintain the records required by subsection (a) or (ed) of this Section, as applicable, for a period of five years at the source at which the unit is located. The records must be made available to the Agency and USEPA upon request.
- c) Reporting Requirements
  - 1) The owner or operator must notify the Agency in writing 30 days and five days prior to testing, <u>underpursuant to</u> Section 217.394(a) and (<u>cb</u>) and:
    - A) If, after the 30-days notice for an initially scheduled test is sent, there is a delay (e.g., due to operational problems) in conducting the performance test as scheduled, the owner or operator of the unit must notify the Agency as soon as possible of the delay in the original test date, either by providing at least seven days prior notice of the rescheduled date of the performance test or by arranging a new test date with the Agency by mutual agreement;
    - B) Provide a testing protocol to the Agency 60 days prior to testing; and
    - C) Not later than 30 days after the completion of the test, submit the results of the test to the Agency.
  - <u>UnderPursuant to</u> the requirements for monitoring in Section 217.394(<u>ed</u>), the owner or operator of the unit must report to the Agency any monitored exceedances of the applicable NO<sub>x</sub> concentration from Section 217.388(a)(1) or (a)(2) within 30 days after performing the monitoring.
  - 3) Within 90 days after permanently shutting down an affected unit or a unit included in an emissions averaging plan, the owner or operator of the unit must withdraw or amend the applicable permit to reflect that the unit is no longer in service.
  - 4) <u>Until May 1, 2025, if</u> demonstrating compliance through an emissions averaging plan:
    - A) By October 31 following the applicable ozone season, the owner or operator must notify the Agency if he or she cannot demonstrate compliance for that ozone season; and

- B) By January 31 following the applicable calendar year, the owner or operator must submit to the Agency a report that demonstrates the following:
  - i) For all units that are part of the emissions averaging plan, the total mass of allowable NO<sub>x</sub> emissions for the ozone season and for the annual control period;
  - The total mass of actual NO<sub>x</sub> emissions for the ozone season and annual control period for each unit included in the averaging plan;
  - iii) The calculations that demonstrate that the total mass of actual NO<sub>x</sub> emissions are less than the total mass of allowable NO<sub>x</sub> emissions using equations in Sections 217.390(hf) and (ig); and
  - iv) The information required to determine the total mass of actual  $NO_x$  emissions and the calculations performed in subsection (c)(4)(B)(iii) of this Section.
- 5) On and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by January 31 following the previous calendar year, the owner or operator must submit to the Agency a report that includes the following:
  - <u>A)</u> For all units that are part of the emissions averaging plan, the total mass of allowable NO<sub>x</sub> emissions on a 30-day rolling average basis.
  - $\frac{B}{A}$ The total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis for each unit included in the averaging plan.

  - <u>D)</u> The daily information required to determine the total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis.
- <u>65</u>) If operating a CEMS, the owner or operator must submit an excess emissions and monitoring systems performance report in accordance with the requirements of 40 CFR 60.7(c) and 60.13 or 40 CFR 75, incorporated by reference in Section 217.104, or an alternate procedure approved by the Agency or USEPA and included in a federally enforceable permit.

- <u>76</u>) If using NO<sub>x</sub> allowances to comply with the requirements of Section 217.388, reconciliation reports as required by Section 217.392( $\underline{de}$ )(3).
- d) On and after May 1, 2025, the owner or operator of an emission unit subject to Subpart Q must submit an annual compliance certification report that demonstrates compliance with the applicable requirements to the Agency for the preceding calendar year by May 1 of the following year. The owner or operator may submit the annual compliance certification report to the Agency along with the Annual Emissions Report required under 35 Ill. Adm. Code 254 or the compliance certification required under 415 ILCS 5/39.5(7)(p)(v). The compliance report must include the following:
  - 1) Identification, type (e.g., lean-burn, gas-fired), and location of the emission unit.
  - 2) Methods used for determining compliance, including an emissions averaging plan, if applicable, a description of test methods, monitoring, recordkeeping, and reporting requirements.
  - 3) A certification of compliance with the applicable emissions concentration or identification of the periods of noncompliance with a quantification of the excess emissions concentration and the excess emissions.
  - 4) For each calendar month, the highest 30-day rolling average emission rate. The emissions data must be reported in the measurement units of the applicable emissions concentration.
  - 5) The emission unit's daily and total operating hours, capacity utilization, and the percent operation of any CEMS during the hours the emission unit was operating.
  - 6) A certification of compliance with all applicable requirements except those identified signed by a responsible official that contains the following: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."
- <u>ed</u>) The owner or operator of an affected unit that is complying with the low usage provisions of Section 217.388(a)(3) must:
  - Before May 1, 2025, for For each unit complying with Section 217.388(a)(3)(A), maintain a record of the NO<sub>x</sub> emissions for each calendar year;
  - 2) For each unit complying with Section 217.388(a)(3)(B), maintain a record

of bhp or MW-hours operated each calendar year; and

- 3) <u>Before May 1, 2025, for For</u> each unit utilizing NO<sub>x</sub> allowances for compliance <u>underpursuant to</u> Section 217.392( $\underline{de}$ )(3), maintain and submit any NO<sub>x</sub> allowance reconciliation reports.
- <u>fe</u>) Instead of complying with the requirements of subsection (a) of this Section, subsection (b) of this Section, subsections (c)(1) through (c)(<u>5</u>) of this Section, and subsection (<u>e</u>d) of this Section, an owner or operator of an affected unit complying with the requirements of Section 217.388(a)(1) and operating a CEMS on that unit may meet the applicable testing, monitoring, reporting and recordkeeping requirements for that CEMS of 40 CFR 75, as incorporated by reference in Section 217.1047.

(Source: Amended at 48 Ill. Reg. \_\_\_\_\_, effective\_\_\_\_\_)