

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
)	R25-17
AMENDMENTS TO 35 ILL. ADM. CODE 217,)	(Rulemaking – Air)
NITROGEN OXIDES EMISSIONS)	

NOTICE

TO: Don Brown
Clerk
Illinois Pollution Control Board
60 E. Van Buren St., Suite 630
Chicago, IL 60605
don.brown@illinois.gov

ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Illinois Pollution Control Board the POST-HEARING COMMENTS OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, a copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Gina Roccaforte
Gina Roccaforte
Assistant Counsel
Division of Legal Counsel

DATED: December 16, 2024

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:)	
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**POST-HEARING COMMENTS OF THE
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

NOW COMES the Illinois Environmental Protection Agency ("Illinois EPA" or "Agency"), by its attorney, and respectfully submits its post-hearing comments in the above rulemaking proceeding with regard to the November 21, 2024, hearing. As the Agency has previously indicated to the Illinois Pollution Control Board ("Board") that it would inform the Board of any issues it learned of regarding the United States Environmental Protection Agency's ("USEPA") approval of the proposed revisions, the Agency is able to state that, based on discussions with representatives of Region V, there are likely no approvability issues with the proposed revisions as set forth by the Agency to the Board.

Environmental Benefit

The Illinois Environmental Regulatory Group ("IERG") asked a few follow-up questions of the Agency pertaining to the environmental benefit factor in relation to economic incentive programs ("EIPs"). Transcript of November 21, 2024, Hearing ("Tr.") at 10:9-16; 12:18-24; 13:1-2; 14:15-19; 20: 4-24; 21:1; 21:15-24; 22:1-13. The Clean Air Act ("CAA") explicitly provides for the use of EIPs as one instrument for states to use to achieve attainment of the National Ambient Air Quality Standards. 42 USC §7410(a)(2)(a), §7502(c)(6), and §7511b(e)(4).

In 2009, the Agency submitted amendments to Part 217 to USEPA for approval as part of the Illinois State Implementation Plan ("SIP") to satisfy NO_x Reasonably Available Control Technology ("RACT") requirements under the CAA. However, in 2011, after USEPA informed

the Agency of the deficiencies that would prevent USEPA from approving the submittals as revisions to the Illinois SIP, the Agency withdrew the submittals. See *Letter from Laurel Kroack, Chief, Bureau of Air, Illinois EPA, to Cheryl L. Newton, Director, Office Air and Radiation Division, USEPA, Region 5*, dated April 7, 2011, attached.

Under Part 217, affected sources are required to comply with applicable emissions limitations. However, affected sources may elect to meet the emissions limitations using an emissions averaging plan. As previously stated, USEPA indicated that an emissions averaging plan is a type of EIP covered by USEPA's *Improving Air Quality with Economic Incentive Programs*, EPA-452/R-01-001 (January 2001) ("USEPA's Guidelines"). See, *Statement of Reasons* at 9. Specifically, USEPA documented two specific issues in Illinois' emissions averaging plan requirements: (i) The EIP guidelines require EIPs, including emissions averaging plans, to provide for a specific emissions cap or an environmental write-off of 10 percent on calculated allowable emissions to generate a benefit to the environment and (ii) EIPs for VOC or NO_x sources controlled for purposes of attaining the ozone standard cannot allow averaging times longer than 30 days. *Id.*; see, also, R11-24 and R11-26 (cons.), *Letter from Cheryl L. Newton, Director of USEPA Air and Radiation Division, Region 5, to Laurel Kroack, Chief, Bureau of Air, Illinois EPA*, dated March 9, 2011, at

<https://pcb.illinois.gov/documents/dsweb/Get/Document-72582>.

A discretionary EIP is any EIP submitted to the USEPA as an implementation plan revision for purposes other than to comply with the statutory requirements of CAA Sections 182(g)(3), 182(g)(5), 187(d)(3), or 187(g), i.e., not a mandatory EIP. See, USEPA's Guidelines at 164. An EIP is a program that may include State established measures directed toward stationary, area, and/or mobile sources, to achieve emissions reductions milestones, to attain and

maintain ambient air quality standards, and/or to provide more flexible, lower-cost approaches to meeting environmental goals. *Id.*

USEPA's Guidelines clearly state that all EIPs must demonstrate environmental benefit. *Id.* at 51. "Environmental benefit—generally means for programmatic reduction EIPs, increased or more rapid emission reductions. For compliance flexibility EIPs, environmental benefit means reducing the amount of surplus emission reductions generated for use in the EIP by at least 10 percent. In addition, environmental benefit can also mean improved administrative mechanisms (e.g., that achieve emissions reductions from sources not readily controllable through traditional regulation), reduced administrative burdens on regulatory agencies that result in increased environmental benefits through other regulatory programs, improved emissions inventories that enhance and lend increased certainty to State planning efforts, and the adoption of emission caps which over time constrain or reduce growth-related emissions beyond traditional regulatory approaches." *Id.* at 165; see also *Id.* at 51. USEPA's Guidelines clarify that, while under certain circumstances states have discretion to address the environmental benefit requirement in the variety of ways described above, EIPs in nonattainment areas without an approved attainment demonstration "*must* meet the environmental benefit requirement by requiring a 10% extra reduction in emissions." *Id.* at 51.

Here, as Illinois EPA has explained several times, Illinois' nonattainment areas do not have an approved attainment demonstration so, for sources that opt to utilize an emissions averaging plan, a 10% emission reduction is required. Sources that are displeased with this requirement are free to instead comply with the emission limitations on a unit-by-unit basis without using an averaging plan.

IERG claims that "since IEPA did not file a timely attainment demonstration, the burden falls on industry to take a ten percent emissions reduction for environmental benefit and install

controls.” Tr. at 12:23-24 and 13:1-2. However, even if the nonattainment areas had an approved attainment demonstration, Illinois could still opt to address the environmental benefit requirement via a 10% emission reduction. Further, even if the Agency had submitted a timely attainment demonstration to USEPA, USEPA would likely not have acted upon it or approved it because such a demonstration would not demonstrate attainment with the ozone standard. *See, generally*, Tr. at 7:20-23; 8:1-2; 22:21-24; and 23:1-2. Regardless, this argument is irrelevant because USEPA has indicated that the 10 percent environmental benefit is mandatory and USEPA will not approve a SIP submittal without it. There is no utility in the Board adopting a rule that will be unapprovable by USEPA.

IERG also refers to USEPA’s Final Rule, *Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements*, 83 Fed. Reg. 62998, 63007 (December 6, 2018), in asking the Agency why Illinois's emission averaging plan is classified as an EIP, rather than a SIP averaging plan. Tr. at 17:15-20. In line with the 2015 Implementation Rule, USEPA, in its Final Rule, *Implementation of the 2008 National Ambient Air Quality Standards for Ozone: State Implementation Plan Requirements*, 80 Fed. Reg. 12278 (March 6, 2015), states, in part, “The EPA’s NO_x RACT guidance (Nitrogen Oxides Supplement to the General Preamble, 57 FR 55625; November 25, 1992) includes a policy where states may develop RACT programs that are based on ‘area wide average emission rates.’ Additional guidance on area-wide RACT provisions is provided by the EPA’s January 2001 economic incentive program guidance titled, ‘Improving Air Quality with Economic Incentive Programs.’ Thus, the EPA’s existing policy recognizes that states may demonstrate as part of their NO_x RACT SIP submittal that the weighted average NO_x emission rate from a group of sources in the nonattainment area subject to RACT meets NO_x RACT requirements.” *Id.* at 12281. Key here is that such action is permissive, rather than mandatory, and the Agency

has decided not to make such a demonstration. However, even if the Agency did decide to make such a demonstration, USEPA's Guidelines would be applicable and, accordingly, a 10% emission reduction would still be required.

IERG also asked if the Agency has evaluated any USEPA approved NOx RACT averaging SIPs such as Pennsylvania's SIP NOx averaging plan that includes 23 major sources approved by USEPA on January 26, 2022. Tr. at 19:2-5. While the Agency focused on states within Region 5, as to Pennsylvania, USEPA approved source-specific, or case-by-case, RACT determinations or alternative NOx emissions limits for sources at 23 major NOx and VOC emitting facilities within the Commonwealth. 87 Fed. Reg. 3929 (January 26, 2022). As in Pennsylvania, the choice of what to propose for inclusion in the SIP is under the control of the department of environmental protection, and the Agency's proposal does not include case-by-case RACT determinations.

Plantwide Applicability Limitation

On the question at hearing by Mr. Rao, Chief Environmental Scientist for the Board, regarding any implications of the proposed rules on any existing sources with a PAL for a particular pollutant in nonattainment areas, Tr. at 32:11-21; 32:24; and 33:1-6, the Agency provides the following additional information. Promulgated by USEPA in 2002, as part of the Final Rule, *Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR): Baseline Emissions Determination, Actual-to-Future-Actual Methodology, Plantwide Applicability Limitations, Clean Units, Pollution Control Projects*, a PAL is an optional flexible permitting mechanism available to existing major stationary sources that involves the establishment of a plantwide emissions limit, in tons per year, for a regulated NSR pollutant. 67 Fed. Reg. 80186 (December 31, 2002). The provisions for PALs are codified in

the federal regulations at 40 CFR §51.165, §51.166, §52.21, and Appendix S to Part 51, Emission Offset Interpretative Ruling. In Illinois, the PAL provisions for attainment areas are set forth at 35 Ill. Adm. Code 204, Prevention of Significant Deterioration, Subpart K, Plantwide Applicability Limitation. Currently, there are no corresponding provisions for nonattainment areas in Illinois under 35 Ill. Adm. Code 203, Major Stationary Sources Construction and Modification.

Given there are no provisions for PALs in nonattainment areas in Illinois' SIP, no PAL permits have been issued to any sources in such areas. While a rulemaking is pending before the Board to update Part 203 to reflect updates to the federal blueprint that have taken place since the last update to the Board's Nonattainment New Source Review rules in March 1998 and would necessarily include provisions for PALs, these provisions have not yet been adopted by the Board. *See, R2022-17, 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 Part 232: Toxic Air Contaminants.* Therefore, if the NOx RACT rulemaking proposal is adopted by the Board in addition to the adoption of the amendments under R2022-17, and thereafter, an existing source requests a PAL as part of a permit application, the Agency's Permit Section may need to assess the interaction between NOx RACT requirements and the provisions governing PALs in reviewing such application. No such assessment has been undertaken to date because it has not been necessary.

The Agency's Responses to Additional Questions at Hearing

The Agency was asked to clarify the due date for submitting a new emissions averaging plan in compliance with the new rule, Tr. at 30:3-12, and reference was made to Section 217.390(c), which states, in part, "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.” Therefore, on and after May 1, 2025, regardless of when an owner or operator submits an emissions averaging plan to the Agency, the owner or operator must submit such plan to the Agency at least 30 days before beginning the use of that plan to demonstrate compliance. For example, if an owner or operator plans to begin using an emissions averaging plan on January 1, 2026, the owner or operator must submit such plan to the Agency by December 2, 2025. Likewise, if an owner or operator plans to begin using an emissions averaging plan on May 1, 2025, to demonstrate compliance, the owner or operator must submit such plan to the Agency by April 1, 2025.

The Agency was also asked to consider aligning the May 1 due date for the annual compliance certification report for the preceding calendar year under Section 217.396(d) with the due date for the compliance report under Section 217.390(g), that is, by January 31 following each calendar year. Tr. at 31:2-11. To streamline the reporting process, a request was made to make both of these reports due by May 1. Tr. at 31:12-18. The Agency is amenable to this request. While this request was specifically made under Subpart Q, for consistency, the Agency will also apply the request to Subpart D and recommends that the rulemaking proposal be amended as set forth below.

The Agency’s Suggested Revisions to the Rulemaking Proposal

As a result of its ongoing discussions with USEPA, the Agency has received some feedback from Region 5, and therefore, proposes to amend the rulemaking proposal as set forth herein. In addition, the Agency is making some corrections and proposing revisions in response to requests and comments by sources. In response to these requests and comments from affected sources in relation to emissions units that share a common stack, the Agency is proposing

revisions to address this situation with written approval from the Agency and USEPA provided there is adequate performance testing and/or monitoring to determine compliance. As to the following proposed amendments, the Agency's proposed revisions are based on the rulemaking proposal as published in the Illinois Register, 48 Ill. Reg. 11469 (August 9, 2024). The Agency has also attached a version of the proposed rule using the First Notice version, as published in the Illinois Register, that includes the proposed revisions (in bold) recommended in these post-hearing comments and the Agency's post-hearing comments filed on October 18, October 31, and November 20, 2024, to aid the Board's final review. Accordingly, the Agency recommends the acceptance by the Board of the following amendments to the rulemaking proposal:

Amend Section 217.156(j) to read as follows:

- j) On and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by ~~May~~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_x emissions on a 30-day rolling average basis.
 - 2) The total mass of actual NO_x 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_x emissions is less than the total mass of allowable NO_x emissions using equations in Section 217.158(h).
 - 4) The daily information required to determine the total mass of actual NO_x emissions on a 30-day rolling average basis.

Amend Section 217.157(a)(8) to read as follows:

- 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) **Except as provided in subsection (a)(8)(C), the** 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_x 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.
- C) Instead of complying with the requirements of subsection (a)(8)(A) and with written approval from the Agency and USEPA, the owner or operator of an industrial boiler subject to Subpart E or a process heater subject to Subpart F, as applicable, may utilize an alternative method to determine the emission rate (lbs/mmBtu) for each fuel combusted in the prior year **for units that share a common stack**. The alternative method must include the use of mass balance for units emitting through the common stack where not all emissions units sharing that common stack are subject to Subpart E or F, as applicable, provided there is adequate performance testing and/or CEMS monitoring to determine emissions from the units subject to Subpart E or F, as applicable, and where heat input is monitored for all emission units served by the common stack. The owner or operator must comply with all applicable provisions under this Section until written Agency and USEPA approval to utilize the alternative method is received by the owner or operator.

Amend Section 217.157(d) to read as follows:

- d) Common Stacks.
 - 1) 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 these emission units is using operating a CEMS continuous monitoring system or performance test to demonstrate compliance, the owner or operator may, with written approval from the Agency, use a single CEMS continuous emissions monitoring system or performance test 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 these emission units are subject to an emissions averaging plan under this Part.
 - 2) If a common stack serves emission units subject to Subpart E or F, as well as emission units that are not subject to Subpart E or F, **each emission unit** the group of emission units served by that common stack must be monitored by a CEMS and/or have **had** performance testing conducted in accordance with subsection (a)(8) to determine emissions from the emission units subject to Subpart E or F and heat input from all emission units served by the common stack must be monitored.
 - 3) Notwithstanding subsection (d)(1), it is not required for all emission units sharing a common stack to be part of an emissions averaging plan if the following criteria are met:
 - A) Each emission unit at the source subject to an emissions limitation in Subparts E or F and not served by a common stack is **demonstrating compliance** complying with the applicable emissions limitation on a unit basis.
 - B) The common stack is monitored by either a CEMS **in accordance with this Section** or performance testing in accordance with subsection (a)(8)(C) to demonstrate compliance with the applicable emissions limitations.

Amend Section 217.158(f)(3) to read as follows:

- 32) Until May 1, 2025, submitSubmit to the Agency, by March 1 following each calendar year, a compliance report containing the information required by Section 217.156(i). On and after May 1, 2025, submit to the Agency, by ~~May~~March 1 following each calendar year, a compliance report containing the information required by Section 217.156(j).

Amend Section 217.158(h)(1) by adding the following immediately before subsection (h)(2):

Alternatively, for units equipped with CEMS that monitor stack flow 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, actual emission rate for a given unit can be determined as follows:

$$E_{act} = K \times C_d \times Q_d$$

Where:

- E_{act} \equiv Actual NO_x emission rate (lb/hr) as determined by a performance test, a CEMS, a PEMS, or an alternative method approved by the Agency.
- K \equiv 1.194×10^{-7} (1.194×10^{-7} converts to (lb/dscf)/ppm)
- C_d \equiv Hourly average NO_x concentration during unit operation in ppm on a dry basis for a given unit.
- Q_d \equiv Hourly average volumetric flow rate during unit operation in scf/hr on a dry basis for a given unit.

Amend Section 217.158(h)(2) to read as follows:

- 2) Allowable emissions must be determined as follows:

When emissions limitations are prescribed in lb/mmBtu,

$$EM_{all(i)} = E_{all(i)} x^{H_i} / 2000$$

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

$$EM_{all(i)} = E_{all(i)} x^{P_i} / 2000$$

Where:

- $EM_{act(i)}$ \equiv Total mass of actual NO_x emissions in tons for a unit.
- $EM_{all(i)}$ \equiv Total mass of allowable NO_x emissions in tons for a unit.
- E_{act} \equiv Actual NO_x 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_{all} \equiv Allowable NO_x 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_x emission rate is to be determined from a performance test after such boiler or heater has undergone combustion tuning. For all other units in an emissions averaging plan, an uncontrolled NO_x emission rate from USEPA's AP-42, as incorporated by reference in Section 217.104, or an uncontrolled NO_x emission rate as determined by an alternative method approved by the Agency, will be used.
- H \equiv Heat input (mmBtu/30-day rolling average basis) calculated from fuel flow meter and the heating value of the fuel used.
- P \equiv Weight in tons of processed product.

Amend Section 217.390(g) to read as follows:

- 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 ~~May 1~~ January 31 following each calendar year, a compliance report containing the information required by Section 217.396(c)(5).

Amend Section 217.396(c)(5) to read as follows:

- 5) On and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by ~~May 1~~ January 31 following the previous calendar year, the owner or operator must submit to the Agency a report that includes the following:
 - A) For all units that are part of the emissions averaging plan,

the total mass of allowable NO_x emissions on a 30-day rolling average basis.

- B) The total mass of actual NO_x emissions on a 30-day rolling average basis for each unit included in the averaging plan.
- C) The calculations that demonstrate that the total mass of actual NO_x emissions is less than the total mass of allowable NO_x emissions using equations in Sections 217.390(j) and (k).
- D) The daily information required to determine the total mass of actual NO_x emissions on a 30-day rolling average basis.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: _____
Gina Roccaforte
Assistant Counsel
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DATED: December 16, 2024

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PAT QUINN, GOVERNOR

DOUGLAS P. SCOTT, DIRECTOR

217/782-9143 (TDD)

April 7, 2011

Ms. Cheryl A. Newton, Director
Office of Air and Radiation Division
U.S. Environmental Protection Agency, Region 5 (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604

Re: Withdrawal of Illinois' NOx RACT SIP Submittals

Dear Ms. ~~Newton~~ *Cheryl*:

In September 2009, the Illinois Environmental Protection Agency (Illinois EPA) submitted to the U.S. Environmental Protection Agency (U.S. EPA) two revisions to Illinois' State Implementation Plan (SIP). These submittals, which were intended to satisfy Illinois' obligations under Sections 110, 172 and 182 of the Clean Air Act for major stationary sources of nitrogen oxides in areas designated as nonattainment with respect to National Ambient Air Quality Standards (42 U.S.C. §§ 7502 and 7511a), are as follows:

- R08-19: In the Matter of: Nitrogen Oxides Emissions From Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217; and
- R07-19: In the Matter of: Section 27 Proposed Rules for Nitrogen Oxide (NOx) Emissions from Stationary Reciprocating Internal Combustion Engines and Turbines: Amendments to 35 Ill. Adm. Code Section 201.146, and Parts 211 and 217

Since these submittals were made, staffs from U.S. EPA Region 5 and Illinois EPA have had several discussions about the approvability of Illinois' NOx RACT rules, as submitted. In your letter dated March 9, 2011, you and your staff provided feedback on Illinois' NOx RACT submittals and identified certain deficiencies that prevent U.S. EPA from approving the submittals as revisions to Illinois' SIP.

Accordingly, the Illinois EPA requests withdrawal of these submittals. The Illinois EPA will work with U.S. EPA to revise these rules, as appropriate, and will resubmit them for approval into the SIP upon completion. If further information is required, please contact Rob Kaleel, Manager, Air Quality Planning Section, Bureau of Air, at 217/524-4387.

Sincerely,

Laurel L. Kroack, Chief
Bureau of Air

ILLINOIS REGISTER

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POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

TITLE 35: ENVIRONMENTAL PROTECTION

SUBTITLE B: AIR POLLUTION

CHAPTER I: POLLUTION CONTROL BOARD

SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS
FOR STATIONARY SOURCES

PART 217

NITROGEN OXIDES EMISSIONS

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NOTICE OF PROPOSED AMENDMENTS

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POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

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POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

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ELECTRICAL GENERATING UNITS

Section

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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. 14271, 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 49 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-4, 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-4, Method 7E, as incorporated by reference in Section 217.104;

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- 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.

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

Section 217.102 Abbreviations and Units

- 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 _x Allowance Tracking System
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
O ₂	oxygen
psia	pounds per square inch absolute
peoc	potential electrical output capacity
PTE	potential to emit

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ppm	parts per million
ppmv	parts per million by volume
<u>PEMS</u>	<u>predictive emission monitoring system</u>
T	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);~~

- ab) 40 CFR 96, subparts B, D, G, and H (1999);

- be) 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);

- cd) 40 CFR ~~60, 72, 75~~ & 76 (2006);

- de) Alternative Control Techniques Document – NO_x 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;

- ef) 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;

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- ~~g)~~ ~~40 CFR 60.13 (2001);~~
- ~~h)~~ ~~40 CFR 60, Appendix A, Methods 3A, 7, 7A, 7C, 7D, 7E, 19, and 20 (2000);~~
- ~~i)~~ 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 (~~2020~~~~2000~~);
- ~~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 (~~2024~~~~2000~~), USEPA;
- ~~l)~~ ~~40 CFR 60, Appendix A, Methods 1, 2, 3, and 4 (2008);~~
- ~~hm)~~ Alternative Control Techniques Document – NO_x 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_x 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;
- ~~je)~~ Alternative Control Techniques Document – NO_x 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_x 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;

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- ~~l~~q) 40 CFR 60 and 75 (~~2024~~2008); and
- ~~m~~) 40 CFR 63.7540 (2024).
- ~~r~~) ~~40 CFR 60, Appendix B, Performance Specification 16, 74 FR 12575 (March 25, 2009).~~

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

SUBPART D: NO_x GENERAL REQUIREMENTS

Section 217.150 Applicability

- a) Applicability
 - 1) Before May 1, 2025, the~~The~~ 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_x in an amount equal to or greater than 100 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; 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 ~~those~~such sources described in subsection (a)(1)(A) of this Section that emits NO_x in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season.

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- 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 reheater, annealing, or galvanizing furnace, aluminum reverberatory or crucible furnace, or fossil fuel-fired stationary boiler that meets both of the following criteria:
- A) 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.
- B) The emission unit emits 15 tons or more of NO_x to the atmosphere per calendar year.
- 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 and Subparts E, F, G, H, I, and M do not apply to afterburners, flares, and incinerators.

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- ~~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_x from existing emission units for purposes of netting or emission offsets, such NO_x 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.~~
- 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_x emissions.

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

Section 217.152 Compliance Date and 30-Day Rolling Average Basis

- 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) A 30-day rolling average under Subparts E, F, I, and M is calculated using the total mass of emissions from the period and the total heat input from such period.
- 2) 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.
- 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.
- ~~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.~~

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- ~~c~~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 ~~is shall be~~ extended until December 31, 2014, if the unit is required to meet emissions limitations for NO_x, 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.
- ~~d~~e) Notwithstanding subsection (a) of this Section, the owner or operator of emission 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.
- e) Notwithstanding subsection (a) of this Section, the owner or operator of emission units subject to Subpart F and located at a petroleum refinery listed in Appendix I that first become subject to the emission limitations under Subpart F on May 1, 2025, must comply with the applicable limitations in Subpart F, including the option of demonstrating compliance with the applicable Subpart through an emissions averaging plan under Section 217.158, for such emission units beginning on and after the dates set forth in Appendix I.
- f) Before January 1, 2028, the provisions of Section 217.152(a) that are effective on and after May 1, 2025, do not apply to (1) the three natural gas boilers numbered 6AP, 7AP, and 8AP located at the source located at 100 Abbott Park Road in Lake County, and (2) the two natural gas boilers numbered 9 and 12 located at the source located at 1401 Sheridan Road in Lake County.

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

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- a) Performance testing of NO_x emissions for emission units constructed on or before ~~May 1, 2025~~July 1, 2014, 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. **If performance testing was already conducted by an owner or operator under this subsection within five years before May 1, 2025, the owner or operator is not required to conduct an additional initial performance test.**
- b) Performance testing of NO_x emissions for emission units for which construction or modification occurs after ~~May 1, 2025~~July 1, 2014, 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. ~~This~~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 CEMS, PEMS, continuous emissions monitoring system, 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 ~~the~~such date and five days before ~~the~~such 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.

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

Section 217.155 Initial Compliance Certification

a) 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

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CEMS~~continuous emissions monitoring system~~ 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 the~~such~~ 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 CEMS~~continuous emissions monitoring system~~ 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 the~~such~~ applicable compliance date. The compliance certification must include a certification of the installation and operation of a CEMS~~continuous emissions monitoring system~~ 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.

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- 2) For emission units constructed or modified on or after May 1, 2025, the 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 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 ~~the~~~~sueh~~ 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) ~~The~~~~Sueh~~ 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.

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- 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) Before May 1, 2025, monthly~~Monthly~~, seasonal, and annual operating hours. On and after May 1, 2025, daily operating hours.
 - 4) Before May 1, 2025, type~~Type~~ and quantity of each fuel used monthly, seasonally, and annually. On and after May 1, 2025, type and quantity of each fuel used daily.
 - 5) On and after May 1, 2025, total mass emissions on a daily basis and on a 30-day rolling average basis.
 - 6~~5~~) Product and material throughput, as applicable.
 - 7~~6~~) Reports for all applicable emissions tests for NO_x conducted on the unit, including results.
 - 8~~7~~) 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.
 - 9~~8~~) 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.
 - 10~~9~~) A log for the NO_x monitoring device, if present, including periods when not in service and maintenance and inspection activities that are performed on the device.
 - 11~~10~~) Identification of time periods for which operating conditions and pollutant data were not obtained by the CEMS or PEMS~~continuous emissions~~

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~~monitoring system~~, including the reasons for not obtaining sufficient data and a description of corrective actions taken.

~~1244)~~ Before May 1, 2025, if ~~if~~ 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.

13) On and after May 1, 2025, if, under Section 217.152(f), an industrial boiler is using backup distillate fuel oil in lieu of natural gas during periods of natural gas curtailment or gas supply interruption, or during periods of periodic testing and maintenance of backup fuels or operator training, not exceeding 48 hours in a calendar year, records documenting the total hours per calendar year of the industrial boiler during these periods.

- 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;
 - 2) Notify the Agency at least 30 days in writing prior to conducting performance testing for NO_x emissions and five days prior to ~~the~~^{such} 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

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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) Before May 1, 2025, the~~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~~~~such~~ exceedances to the Agency within 30 days following the end of the applicable compliance period in which the emissions limitation was not met. 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 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.
- h) 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) Until May 1, 2025, if~~If~~ 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:
- 1) For all units that are part of the emissions averaging plan, the total mass of allowable NO_x emissions for the ozone season and for the annual control period;
 - 2) The total mass of actual NO_x 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_x emissions.

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- j) On and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by May 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_x emissions on a 30-day rolling average basis.
 - 2) The total mass of actual NO_x 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_x emissions is less than the total mass of allowable NO_x emissions using equations in Section 217.158(h).
 - 4) The daily information required to determine the total mass of actual NO_x emissions on a 30-day rolling average basis.
- k) The owner or operator of an emission unit subject to the requirements of Section 217.157 and demonstrating compliance through the use of a CEMS or PEMS~~continuous emissions monitoring system~~ must submit to the Agency a report within 30 days after the end of each calendar quarter. This report must include the following:
- 1) Information identifying and explaining the times and dates when the CEMS or PEMS~~continuous emissions monitoring~~ for NO_x 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.
- l) 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

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requirements in accordance with 40 CFR 75, or an alternate procedure approved by the Agency and USEPA.

m) 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 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., 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

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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 ~~CEMS continuous emissions monitoring system~~ on the emission unit for the measurement of NO_x 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 ~~CEMS 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 ~~CEMS 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 ~~CEMS continuous emissions monitoring system~~ on ~~the~~~~such~~ 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.
- 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 ~~CEMS continuous emissions monitoring system~~ on the 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,

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Quality Assurance Procedures, as incorporated by reference in Section 217.104.

- 4) 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 CEMS~~continuous emissions monitoring system~~ must have an initial performance test conducted in accordance with~~pursuant to~~ subsection (a)(8)~~(A)(B)~~ of this Section and Section 217.154, and subsequent performance tests conducted in accordance with subsection (a)(8) of this Section.
- A) ~~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.~~
- B) ~~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_x emissions must be measured while the industrial boiler is operating.~~

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~~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 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. The CEMS~~continuous 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.
- 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 CEMS~~continuous emissions monitoring system~~ on the~~such~~ boiler for the measurement of NO_x emissions discharged into the atmosphere, but must conduct initial and subsequent~~comply with the~~ performance tests in accordance with~~test requirements under~~ subsection (a)(84) 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)

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subsequent to an initial performance test must also meet the requirements in subsection (a)(8)(B):

- A) Except as provided in subsection (a)(8)(C), 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_x 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.
- C) Instead of complying with the requirements of subsection (a)(8)(A) and with written approval from the Agency and USEPA, the owner or operator of an industrial boiler subject to Subpart E or a process heater subject to Subpart F, as applicable, may utilize an alternative method to determine the emission rate (lbs/mmBtu) for each fuel combusted in the prior year for units that share a common stack. The alternative method must include the use of mass balance for units emitting through the common stack where not all emissions units sharing that common stack are subject to Subpart E or F, as applicable, provided there is adequate performance testing and/or CEMS monitoring to determine emissions from the units subject to Subpart E or F, as applicable, and where heat input is monitored for all emission units served by the common stack. The owner or operator must comply with all applicable provisions under this Section until written Agency and USEPA approval to utilize the alternative method is received by the owner or operator.

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- 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 ~~CEMS continuous emissions monitoring system~~ on ~~the~~^{such} 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_x 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) ~~All the~~^{For 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 such 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
 - 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~~

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~~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, ~~or~~^{and} 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_x 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 ~~the~~^{such} owner or operator is demonstrating compliance with an emissions limitation through a ~~CEMS continuous 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_x 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 ~~CEMS continuous emissions monitoring system~~ must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual

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basis until May 1, 2025, and a 30-day rolling average on and after May 1, 2025.

- c) Fossil Fuel-Fired Stationary Boilers. Until May 1, 2025, the~~The~~ owner or operator of a fossil fuel-fired stationary boiler subject to Subpart M of this Part must install, calibrate, maintain, and operate a CEMS~~continuous emissions monitoring system~~ on the~~such~~ emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 96, subpart H. On and after May 1, 2025, the owner or operator of a fossil fuel-fired 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_x emissions discharged into the atmosphere in accordance with 40 CFR 75.
- d) Common Stacks.
- 1) 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 the~~such~~ emission units is using~~operating~~ a CEMS or performance test to demonstrate compliance~~continuous emissions monitoring system~~, the owner or operator may, with written approval from the Agency, use~~utilize~~ a single CEMS or performance test~~continuous emissions monitoring system~~ 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 the~~such~~ emission units are subject to an emissions averaging plan under this Part.
 - 2) **If a common stack serves emission units subject to Subpart E or F, as well as emission units that are not subject to Subpart E or F, each emission unit served by that common stack must be monitored by a CEMS and/or have had performance testing conducted in accordance with subsection (a)(8) to determine emissions from the emission units subject to Subpart E or F and heat input from all emission units served by the common stack must be monitored.**
 - 3) **Notwithstanding subsection (d)(1), it is not required for all emission units sharing a common stack to be part of an emissions averaging plan if the following criteria are met:**
 - A) **Each emission unit at the source subject to an emissions limitation in Subparts E or F and not served by a common stack is demonstrating compliance with the applicable emissions limitation on a unit basis.**
 - B) **The common stack is monitored by either a CEMS in accordance with this Section or performance testing in**

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accordance with subsection (a)(8)(C) to demonstrate compliance with the applicable emissions limitations.

- 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)(~~65~~) or (b)(5) of this Section, or who has elected to comply with the ~~predictive emission monitoring 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_x 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 until May 1, 2025, 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) or Section 217.150(a)(2)(A)(i) or (ii), 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. ~~The~~~~Such~~ 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, 2017.
- B) Before May 1, 2025, units~~Units~~ that the owner or operator may claim as exempt ~~under pursuant to~~ 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 ~~the~~~~such~~ a unit is

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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), or Subpart Q, as applicable, under Section 217.386(b)(2)(A) or (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.

- DE) Units that commence operation after January 1, **2017**, if the unit replaces a unit that commenced operation on or before January 1, **2017**, or it replaces a unit that replaced a unit that commenced operation on or before January 1, **2017**. The new unit must be used for the same purpose and have substantially equivalent or less process capacity or be permitted for less NO_x emissions on an annual basis than the actual NO_x 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 thesueh 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.

- E) **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 share a common stack with a unit that is subject to Subpart E, F, G, H, I, or M, as applicable.**

- 2) The following types of units may not be included in an emissions averaging plan:

- A) Units that commence operation after January 1, **2017**, except as provided by subsection (a)(1)(DE) of this Section.
- B) Before May 1, 2025, units~~Units~~ that the owner or operator is claiming are exempt under~~pursuant to~~ 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

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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) Before May 1, 2025, an~~An~~ 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
- 2) A sample calculation demonstrating compliance using the methodology provided in subsection (g~~f~~) 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 number.
- 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.

- de) 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.~~

- ed) Notwithstanding subsection (de) of this Section:

- 1) 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

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after ~~the~~~~such~~ occurrence, an updated emissions averaging plan; or

- 2) ~~Before May 1, 2025, if~~ a unit that was exempt from the requirements of Subpart E, F, G, H, I, or M of this Part ~~under~~~~pursuant to~~ 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 ~~the~~~~such~~ unit within 30 days after the unit no longer qualifies for the exemption.
- 3) On and after May 1, 2025, if a unit that was not otherwise subject to Subpart E, F, G, H, I, or M, as applicable, under Section 217.150(a)(2)(B) becomes subject to Subpart E, F, G, H, I, or M, as applicable, the owner or operator may amend its existing averaging plan to include the unit within 30 days after the unit becomes subject to the applicable Subpart.

~~f~~e) An owner or operator must:

- 1) ~~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 ~~under~~~~pursuant to~~ subsection (b) of this Section, the monitoring data or test data determined ~~under~~~~pursuant to~~ Section 217.157, and the actual hours of operation for the applicable averaging plan period. ~~;~~ ~~and~~
- 2) 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.
- ~~3~~2) Until May 1, 2025, submit~~Submit~~ to the Agency, by March 1 following each calendar year, a compliance report containing the information required by Section 217.156(i). On and after May 1, 2025, submit to the Agency, by May 1 following each calendar year, a compliance report containing the information required by Section 217.156(j).

~~g~~f) 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:

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

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_x 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_x 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_x emissions in tons for a unit as determined in subsection (f)(1) of this Section.

i = Subscript denoting an individual unit.

j = Subscript denoting the fuel type used.

k = Number of different fuel types.

n = Number of different units in the averaging plan.

$EM_{all(i)}$ = Total mass of allowable NO_x emissions in tons for a unit as determined in subsection (g)(2) of this Section.

For each unit in the averaging plan, and each fuel used by ~~the~~^{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,

$$EM_{act(i)} = EM_{act(i)} x^{H_i} / 2000$$

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

$$EM_{act(i)} = EM_{act(i)} x^{P_i} / 2000$$

- 2) Allowable emissions must be determined as follows:

When emission limits are prescribed in lb/mmBtu,

$$EM_{all(i)} = E_{all(i)} x^{H_i} / 2000$$

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

$$EM_{all(i)} = EM_{all(i)} x^{P_i} / 2000$$

Where:

$EM_{act(i)}$ = Total mass of actual NO_x emissions in tons for a unit.

$EM_{all(i)}$ = Total mass of allowable NO_x emissions in tons for a unit.

E_{act} = Actual NO_x 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.

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- E_{all} = Allowable NO_x 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_x emission rate is to be determined from a performance test after ~~the~~^{such} boiler or heater has undergone combustion tuning. For all other units in an emissions averaging plan, an uncontrolled NO_x emission rate from USEPA's AP-42, as incorporated by reference in Section 217.104, or an uncontrolled NO_x 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.
- P = weight in tons of processed product.

- h) On and after May 1, 2025, 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 on a 30-day rolling average basis. The following equation must be used to determine compliance:

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

Where:

$$N_{act} \equiv \sum_{i=1}^n \sum_{j=1}^k EM_{act(i,j)}$$

Where N_{act} is the total sum of the actual NO_x mass emissions from units included in the averaging plan for each fuel used (tons per 30-day rolling average basis).

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$$N_{all} \equiv \sum_{i=1}^n \sum_{j=1}^k EM_{all(i,j)}$$

Where N_{all} is the total sum of the allowable NO_x mass emissions from units included in the averaging plan for each fuel used (tons per 30-day rolling average basis).

$EM_{act(i)}$ \equiv Total mass of actual NO_x emissions in tons for a unit as determined in subsection (h)(1) of this Section.

i \equiv Subscript denoting an individual unit.

j \equiv Subscript denoting the fuel type used.

k \equiv Number of different fuel types.

n \equiv Number of different units in the averaging plan.

$EM_{all(i)}$ \equiv 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_x emissions using the following equations:

1) Actual emissions must be determined as follows:

When emissions limitations are prescribed in lb/mmBtu,

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

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

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

Alternatively, for units equipped with CEMS that monitor stack flow 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, actual emission rate for a given unit can be determined as follows:

$$E_{act} = K \times C_d \times Q_d$$

Where:

E_{act} \equiv **Actual NO_x emission rate (lb/hr) as determined by a performance test, a CEMS, a PEMS, or an alternative method approved by the Agency.**

K \equiv **1.194×10^{-7} (1.194×10^{-7} converts to (lb/dscf)/ppm)**

C_d \equiv **Hourly average NO_x concentration during unit operation in ppm on a dry basis for a given unit.**

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$Q_d \equiv$ Hourly average volumetric flow rate during unit operation in scf/hr on a dry basis for a given unit.

2) Allowable emissions must be determined as follows:

When emissions limitations are prescribed in lb/mmBtu,

$$EM_{all(i)} = E_{all(i)} x^{H_i} / 2000$$

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

$$EM_{all(i)} = E_{all(i)} x^{P_i} / 2000$$

Where:

$EM_{act(i)} \equiv$ Total mass of actual NO_x emissions in tons for a unit.

$EM_{all(i)} \equiv$ Total mass of allowable NO_x emissions in tons for a unit.

$E_{act} \equiv$ Actual NO_x 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.

$E_{all} \equiv$ Allowable NO_x 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.

$H \equiv$ Heat input (mmBtu/30-day rolling average basis) calculated from fuel flow meter and the heating value of the fuel used.

$P \equiv$ 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 (i.e., 30-day rolling average under Section 217.152)

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those time periods when an emission unit included in the emissions averaging plan is shut down for a maintenance turnaround, provided that **the requirements in subsection (j)(1) through (j)(5) are met:**

- 1) ~~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;
- 2) ~~and~~ the shutdown of the emission unit does not exceed 45 days per ozone season or calendar year;
- 3) **daily emissions of the combined emission units in the emissions averaging plan during the maintenance turnaround do not exceed the turnaround daily emissions cap. The turnaround daily emissions cap is the highest average daily emissions value of the three prior calendar years, where the combined emissions of units in the emissions averaging plan are summed on a daily basis, and those values are averaged for a given calendar year. The turnaround daily emission cap is to be submitted to the Agency in the written notification described in subsection (j)(1); and**
- 4) NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround; **and**
- 5) **the owner or operator notifies the Agency in writing within 30 days of the end of the maintenance turnaround of the actual start and end dates for the maintenance turnaround and, for each day of the maintenance turnaround, the daily emissions of the combined emission units in the emissions averaging plan.**

The owner or operator must resume compliance with the 30-day rolling average on the calendar day immediately following the end of the maintenance turnaround and incorporating the operating days preceding the maintenance turnaround. For purposes of this subsection, "maintenance turnaround" means the shutdown of any emission unit or control equipment that is scheduled at least 30 days in advance of the shutdown and the purpose of such shutdown is to (1) perform general equipment cleaning and repairs due to normal equipment wear and tear; (2) perform required equipment tests and internal inspections; (3) install any unit or equipment modifications/additions, or make provisions for a future modification or addition; and/or (4) perform normal end-of-run catalyst changeouts or refurbishments.

- ^ki) ~~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

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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 of the coke oven gas desulfurization unit for maintenance and ~~the~~^{such} shutdown does not exceed 35 days per ozone season or calendar year and NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance period.

- lj) ~~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 **(i.e., 30-day rolling average under Section 217.152)** those time periods when NO_x 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 **the requirements in subsection (l)(1) through (l)(5) are met:**

- 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_x pollution control equipment does not exceed 45 days per ozone season or calendar year; ~~and~~
- 3) **daily emissions of the combined emission units in the emissions averaging plan during the maintenance turnaround do not exceed the turnaround daily emissions cap. The turnaround daily emissions cap is the highest average daily emissions value of the three prior calendar years, where the combined emissions of units in the emissions averaging plan are summed on a daily basis, and those values are averaged for a given calendar year. The turnaround daily emission cap is to be submitted to the Agency in the written notification described in subsection (l)(1);**
- 4) **except for those emission units vented to the NO_x pollution control equipment undergoing the maintenance turnaround, NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround; and**
- 5) **the owner or operator notifies the Agency in writing within 30 days of the end of the maintenance turnaround of the actual start and end dates for the maintenance turnaround and, for each day of the maintenance turnaround, the daily emissions of the combined emission units in the emissions averaging plan.**

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The owner or operator must resume compliance with the 30-day rolling average on the calendar day immediately following the end of the maintenance turnaround and incorporating the operating days preceding the maintenance turnaround. For purposes of this subsection, "maintenance turnaround" means the shutdown of any emission unit or control equipment that is scheduled at least 30 days in advance of the shutdown and the purpose of such shutdown is to (1) perform general equipment cleaning and repairs due to normal equipment wear and tear; (2) perform required equipment tests and internal inspections; (3) install any unit or equipment modifications/additions, or make provisions for a future modification or addition; and/or (4) perform normal end-of-run catalyst changeouts or refurbishments.

- m) Notwithstanding subsection (h), for the owner or operator of a petroleum refinery located in Channahon or Wood River, the equation used to determine compliance before January 1, 2028, is as follows:

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

Where N_{act} and N_{all} are defined as under subsection (h).

(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.~~
- ~~a~~b) 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 ~~the~~~~such~~ boilers meet the applicability criteria under Subpart M of this Part.
- ~~b~~e) 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 ~~the~~~~such~~ units are located at a petroleum refinery and ~~the~~~~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.

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- d) **On and after May 1, 2025, the provisions of this Subpart, except for recordkeeping and reporting requirements, do not apply to an industrial boiler when (1) backup distillate fuel oil is used in lieu of natural gas during periods of natural gas curtailment or gas supply interruption; or (2) during periods of periodic testing and maintenance of backup fuels or operator training, not exceeding 48 hours in a calendar year.**

(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_x 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. 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.

Fuel	Emission Unit Type and Rated Heat Input Capacity (mmBtu/hr)	NO _x 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

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	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 100	Combustion tuning

<u>Fuel</u>	<u>NO_x Emission Unit Type and Rated Heat Input Capacity (mmBtu/hr)</u>	<u>Limitation (lb/mmBtu) or Requirement On and after May 1, 2025</u>
<u>Natural Gas or Other Gaseous Fuels</u>	<u>Industrial boiler greater than 50</u>	<u>0.08</u>
	<u>Industrial boiler less than or equal to 50</u>	<u>Combustion tuning</u>
<u>Distillate Fuel Oil</u>	<u>Industrial boiler greater than 50</u>	<u>0.10</u>
	<u>Industrial boiler less than or equal to 50</u>	<u>Combustion tuning</u>
<u>Other Liquid Fuels</u>	<u>Industrial boiler greater than 50</u>	<u>0.15</u>
	<u>Industrial boiler less than or equal to 50</u>	<u>Combustion tuning</u>

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Solid Fuel

Industrial boiler greater than 50, circulating fluidized bed combustor 0.10

Industrial boiler greater than 250 0.15

Industrial boiler greater than 50 but less than or equal to 250 0.20

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_x emissions limitation ~~must~~^{shall} be calculated using the following equation:

$$\begin{array}{l} \text{NO}_x \\ \text{emissions} \\ \text{limitation for} \\ \text{period in} \\ \text{lb/mmBtu} \end{array} = \frac{(NO_{x_{NG}} * Btu_{NG}) + (NO_{x_{COG}} * Btu_{COG}) + (NO_{x_{BFG}} * Btu_{BFG})}{Btu_{NG} + Btu_{COG} + Btu_{BFG}}$$

Where:

$NO_{x_{NG}}$ = 0.084 lb/mmBtu for natural gas

Btu_{NG} = the heat input of natural gas in Btu over that period

$NO_{x_{COG}}$ = 0.144 lb/mmBtu for coke oven gas

Btu_{COG} = 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 _____)

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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;
 - 3e) 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

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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_x 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_x into the atmosphere from any process heater 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.

Fuel	Emission Unit Type and Rated Heat Input Capacity (mmBtu/hr)	NO _x Emissions Limitation (lb/mmBtu) or Requirement
		<u>Before May 1, 2025</u>
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

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	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>	<u>Emission Unit Type and Rated Heat Input Capacity (mmBtu/hr)</u>	<u>No_x Emissions Limitation (lb/mmBtu) or Requirement On and after May 1, 2025</u>
<u>Natural Gas or Other Gaseous Fuels</u>	<u>Process heater greater than 50</u>	<u>0.08</u>
	<u>Process heater less than or equal to 50</u>	<u>Combustion tuning</u>
<u>Residual Fuel Oil</u>	<u>Process heater greater than 50, natural draft</u>	<u>0.10</u>
	<u>Process heater greater than 50, mechanical draft</u>	<u>0.15</u>
	<u>Process heater less than or equal to 50</u>	<u>Combustion tuning</u>
<u>Other Liquid Fuels</u>	<u>Process heater greater than 50, natural draft</u>	<u>0.05</u>
	<u>Process heater greater than 50, mechanical draft</u>	<u>0.08</u>

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Process 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) Until May 1, 2025, the~~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 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;
- 2b) The name, title, and affiliation of the person who performed the combustion tuning;
- 3e) 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 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 _____)

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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_x 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_x 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_x into the atmosphere from any glass melting furnace to exceed the following limitations. Until May 1, 2025, compliance ~~Compliance~~ must be demonstrated with the 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.

Product	Emission Unit Type	NO _x Emissions Limitation (lb/ton glass produced)
		<u>Before May 1, 2025</u>
Container Glass	Glass melting furnace	5.0

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Flat Glass	Glass melting furnace	7.9
Other Glass	Glass melting furnace	11.0

<u>Product</u>	<u>Emission Unit Type</u>	<u>NO_x Emissions Limitation (lb/ton glass produced) On and after May 1, 2025</u>
<u>Container Glass</u>	<u>Glass melting furnace</u>	<u>4.0</u>
<u>Flat Glass</u>	<u>Glass melting furnace</u>	<u>7.0</u>
<u>Other Glass</u>	<u>Glass melting furnace</u>	<u>4.0</u>

- b) Before May 1, 2025, the~~The~~ emissions during glass melting furnace startup (not to exceed 70 days) or furnace idling (operation at less than 35% of furnace capacity) will~~shall~~ 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.

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- 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_x 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

- a) On and after January 1, 2015, no person shall cause or allow emissions of NO_x 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.

Emission Unit Type	NO _x Emissions Limitation (lb/ton clinker produced) <u>Before May 1, 2025</u>
	<u>NO_x Emissions Limitation (lb/ton clinker produced) On and after May 1, 2025</u>
Long dry kiln	5.1
Short dry kiln	5.1
Preheater kiln	3.8
Preheater/precalciner kiln	2.8

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<u>Long dry kiln</u>	<u>3.0</u>
<u>Short dry kiln</u>	<u>2.3</u>
<u>Preheater kiln</u>	<u>3.8</u>
<u>Preheater/precalciner kiln</u>	<u>2.8</u>

- b) On and after January 1, 2015, no person shall cause or allow emissions of NO_x 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.

Fuel	Emission Unit Type	NO _x Emissions Limitation (lb/ton lime 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

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_x 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.~~

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(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 crucible furnace operating under a federally enforceable limit of NO_x 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 217.244 Emissions Limitations

- a) On and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any reheat furnace, annealing furnace, or galvanizing furnace used in iron and steel making 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.

Emission Unit Type	NO _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 furnace, cold-air	0.03
Annealing furnace, regenerative	0.38
Annealing furnace, recuperative	0.16

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Annealing furnace, cold-air	0.07
Galvanizing furnace, regenerative	0.46
Galvanizing furnace, recuperative	0.16
Galvanizing furnace, cold air	0.06

<u>Emission Unit Type</u>	<u>NO_x Emissions Limitation (lb/mmBtu) On and after May 1, 2025</u>
<u>Reheat furnace, cold air</u>	<u>0.03</u>
<u>Reheat furnace, regenerative and recuperative</u>	<u>0.09</u>
<u>Annealing furnace, cold air</u>	<u>0.07</u>
<u>Annealing furnace, regenerative and recuperative</u>	<u>0.08</u>
<u>Galvanizing furnace, cold air</u>	<u>0.06</u>
<u>Galvanizing furnace, regenerative and recuperative</u>	<u>0.08</u>

- b) On and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any reverberatory furnace or crucible furnace used in aluminum melting 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.

<u>Emission Unit Type</u>	<u>NO_x Emissions Limitation (lb/mmBtu)</u>
Reverberatory furnace	0.08
Crucible furnace	0.16

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(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 ~~under~~pursuant to Section 217.150.
- b) Before May 1, 2025, the provisions of this Subpart do not apply to a fossil fuel-fired stationary 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 217.342 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_x 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 Ill. Adm. Code 225.Subpart B through the multi-pollutant standard.~~
- ~~c) 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 _____)

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Section 217.344 Emissions Limitations

On and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any fossil fuel-fired stationary boiler 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.

Fuel	Emission Unit Type	NO _x Emissions 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 Ill. Reg. _____, effective _____)

SUBPART Q: STATIONARY RECIPROCATING
INTERNAL COMBUSTION ENGINES AND TURBINES

Section 217.386 Applicability

- a) Before May 1, 2025, the~~The~~ 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_x 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

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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:
 - 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.

cb) Notwithstanding ~~subsections~~subsection (a)(2) and (b)(2) of this Section, an affected unit is not subject to the requirements of this Subpart Q if the engine or turbine is ~~or has been~~:

- 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;

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- 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.
- ~~de~~) If an exempt unit ceases to fulfill the criteria specified in subsection (~~cb~~) of this Section, the unit is subject to the control requirements of this Subpart Q, 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.
- ~~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 ~~under~~pursuant to subsection (~~cb~~) 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_x from existing emission units for purposes of netting or emissions offsets, such NO_x decreases shall remain creditable notwithstanding any requirements that may apply to the existing emissions units pursuant to this Subpart.~~
- f) Notwithstanding subsection (e), on and after May 1, 2025, the requirements of 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 requirements of subsection (b) or becomes eligible for an exemption pursuant to subsection (c), except for a combustion turbine that serves a generator that has a nameplate capacity greater than 25 Mwe and produces electricity for sale that does not meet the applicability criteria of subsection (b)(2).

(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

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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_x to no more than:
 - A) 150 ppmv (corrected to 15 percent O₂ on a dry basis) for spark-ignited rich-burn engines;
 - B) 210 ppmv (corrected to 15 percent O₂ on a dry basis) for spark-ignited lean-burn engines, except for existing spark-ignited Worthington engines that are not listed in Appendix G;
 - C) 365 ppmv (corrected to 15 percent O₂ on a dry basis) for existing spark-ignited Worthington engines that are not listed in Appendix G;
 - D)
 - i) Before May 1, 2025, 660 ppmv (corrected to 15 percent O₂ on a dry basis) for diesel engines;
 - ii) On and after May 1, 2025, 210 ppmv (corrected to 15 percent O₂ on a dry basis) for diesel engines that are constructed on and after May 1, 2025;
 - E)
 - i) Before May 1, 2025, 42 ppmv (corrected to 15 percent O₂ on a dry basis) for gaseous fuel-fired turbines; ~~and~~
 - ii) On and after May 1, 2025, 25 ppmv (corrected to 15 percent O₂ on a dry basis) for gaseous fuel-fired turbines;
 - F)
 - i) Before May 1, 2025, 96 ppmv (corrected to 15 percent O₂ on a dry basis) for liquid fuel-fired turbines; and.
 - ii) On and after May 1, 2025, 65 ppmv (corrected to 15 percent O₂ on a dry basis) for liquid fuel-fired turbines.
- 2) Complies with an emissions averaging plan as provided for in either subsection (a)(2)(A) or (a)(2)(B) of this Section:

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- 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 ~~underpursuant to~~ any other Subpart of this Part. For ~~thesuch~~ affected engines and turbines the applicable requirements of this Subpart apply, including, ~~but not limited to,~~ calculation of NO_x 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 ~~underpursuant to~~ 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 ~~underpursuant to~~ subsection (a)(4) of this Section, test as required by Section 217.394(~~gf~~), and retain records ~~underpursuant to~~ Section 217.396(b) and (~~ed~~). Either the limitation in subsection (a)(3)(A) or (a)(3)(B) may be ~~used~~~~utilized~~ at a source, but not both:
- A) ~~Before May 1, 2025, the~~~~The~~ potential to emit (PTE) is no more than 100 TPY NO_x aggregated from all engines and turbines located at the source that are not otherwise exempt ~~underpursuant to~~ Section 217.386(~~cb~~), and not complying with the requirements of subsection (a)(1) or (a)(2) of this Section, and the NO_x 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 ~~underpursuant to~~ Section 217.386(~~cb~~), 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)(ii) 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:

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- 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:
 - 1) 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 (f), as applicable. Before May 1, 2025, ~~for~~For this purpose, references to the "applicable compliance date" in Section 217.394(a)(2) and (a)(3) ~~means~~shall mean the date by which compliance with subsection (a)(1) or (a)(2) of this Section is to begin.

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- 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), (~~c~~~~b~~), (~~d~~~~e~~), (~~e~~~~d~~) or (~~f~~~~e~~) for the affected unit. If the deadline for ~~the~~~~sueh~~ 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(~~g~~~~f~~).

(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, **2017** may be included in only one emissions averaging plan, as follows:
- A) Units:
- i) 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

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working control through stock ownership of its subsidiary corporations; or

- ii) ~~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 ~~underpursuant to~~ Section 217.386(~~cb~~) but does not claim as exempt. For as long as ~~thesueh~~ 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_x emissions control technology. For as long as ~~thesueh~~ unit is included in an emissions averaging plan, it will be subject to the applicable emission concentration limits in subsection (~~ig~~)(7) of this Section, the applicable testing and monitoring requirements for affected units in Section 217.394(a) through (~~fe~~), and the

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applicable recordkeeping and reporting requirements for affected and low usage units in Section 217.396(a) through ~~(e)~~.

- 2) The following types of units may not be included in an emissions averaging plan:
 - A) Units that commence operation after January 1, **2017**, 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, **2017**, 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 commenced operation on or before January 1, **2017**. The new unit must be used for the same purpose and have substantially equivalent or less process capacity or be permitted for less NO_x 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 ~~under~~pursuant to Section 217.386(~~c~~b).
- b) Before May 1, 2025, an~~An~~ 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 (~~h~~f) of this Section for both the ozone season and calendar year.
 - 2) The plan will be effective as follows:

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- 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 ~~under~~pursuant to 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 ~~under~~pursuant to subsection (~~de~~) of this Section is effective retroactively to January 1 of the applicable year; or
 - E) An amended plan submitted ~~under~~pursuant to subsection (~~ed~~) 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) A sample calculation demonstrating compliance using the methodology 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~~

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~~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)~~ Despite~~Notwithstanding~~ subsection (~~d~~e) 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 ~~underpursuant to~~ Section 217.386(~~c~~b) or as a low usage unit ~~underpursuant to~~ 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)~~ Until May 1, 2025, an~~An~~ owner or operator must:

- 1) 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 ~~underpursuant to~~ subsection (b), (~~d~~e), or (~~e~~d) of this Section; the higher of the monitoring or test data determined ~~underpursuant to~~ 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
- 3) 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:

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- 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 **May 1** following each calendar year, a compliance report containing the information required by Section 217.396(c)(5).
- h) 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:

$$N_{act} \rightarrow = \sum_{i=1}^n EM_{act(i)}$$

$$N_{all} \rightarrow = \sum_{i=1}^n EM_{all(i)}$$

N_{act} = Total sum of the actual NO_x 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_x emissions in lbs for a unit as determined in subsection (g)(2) or (h)(2) of this Section.

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$EM_{act(i)}$ = Total mass of actual NO_x 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.

~~(g)~~ Until May 1, 2025, for ~~For~~ 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 ~~(h)~~ (1h) of this Section:

1) Actual emissions must be determined as follows:

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

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

2) Allowable emissions must be determined as follows:

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

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

Where:

$EM_{act(i)}$ = Total mass of actual NO_x emissions in lbs for a unit, except as provided for in subsections ~~(g)~~ (1g)(3) and ~~(g)~~ (1g)(5) of this Section.

$EM_{all(i)}$ = Total mass of allowable NO_x emissions in lbs for a unit, except as provided for in subsection ~~(g)~~ (1g)(3) of this Section.

E_{act} = Actual NO_x emission rate (lbs/mmBtu) calculated according to the above equation.

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- E_{all} = Allowable NO_x 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_x in lb/dscf ($ppmv \times 1.194 \times 10^{-7}$) 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~~pursuant to Section 217.394, whichever is higher.
- $C_{d(all)}$ = Allowable concentration of NO_x in lb/dscf (allowable emission limit in ppmv specified in Section 217.388(a)(1), except as provided for in subsection (i~~g~~)(4), (i~~g~~)(5), (i~~g~~)(6), or (i~~g~~)(7) of this Section, if applicable, multiplied by 1.194×10^{-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_{2d} , 18.7 would be used.
- i = Subscript denoting an individual unit and the fuel used.
- j = 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_x emissions from the affected unit that was replaced should be used in the averaging calculations and the actual NO_x emissions for the electric-powered replacement unit ($EM_{act\ elec(i)}$) are zero. Allowable NO_x 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_x emission rate in lb/bhp-hr of the replaced unit. The allowable mass of NO_x

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emissions from an electric-powered replacement unit ($EM_{all\ elec(i)}$) 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_x emission rate of the replaced unit ($E_{all\ rep}$) 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:

- $EM_{all\ elec(i)}$ = Mass of allowable NO_x 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_x 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_x emissions rate used in the above equations set forth in subsection (i)(2) of this Section must be the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x 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 (i)(2) of this Section must be the emissions concentration set forth in Section 217.388(a)(1) or subsection (i)(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,

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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 (i~~g~~)(2) of this Section must be:
- A) Prior to the applicable compliance date ~~underpursuant to~~ Section 217.392, the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x 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 ~~underpursuant to~~ Section 217.392, the applicable emissions concentration for that type of unit ~~underpursuant to~~ 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_x emissions rate used in the above equations set forth in subsection (i~~g~~)(2) of this Section must be the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x 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_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 on a 30-day rolling average basis. The following equation must be used to determine compliance:

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

Where:

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$$N_{\text{act}} \rightarrow = \sum_{i=1}^n EM_{\text{act}(i)}$$

$$N_{\text{all}} \rightarrow = \sum_{i=1}^n EM_{\text{all}(i)}$$

N_{act} \equiv Total sum of the actual NO_x mass emissions from units included in the averaging plan for each fuel used (lbs per 30-day rolling average basis).

N_{all} \equiv Total sum of the allowable NO_x mass emissions from units included in the averaging plan for each fuel used (lbs per 30-day rolling average basis).

$EM_{\text{all}(i)}$ \equiv Total mass of allowable NO_x emissions in lbs for a unit as determined in subsection (k)(2) or (l)(2) of this Section.

$EM_{\text{act}(i)}$ \equiv Total mass of actual NO_x emissions in lbs for a unit as determined in subsection (k)(1) or (l)(1) of this Section.

i \equiv Subscript denoting an individual unit and fuel used.

n \equiv Number of different units in the averaging plan.

k) 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_x emissions using the following equations, except as provided for in subsection (l) of this Section:

1) Actual emissions must be determined as follows:

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

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

2) Allowable emissions must be determined as follows:

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

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

Where:

- $EM_{act(i)}$ \equiv Total mass of actual NO_x emissions in lbs for a unit, except as provided for in subsections (k)(3) and (k)(5) of this Section.
- $EM_{all(i)}$ \equiv Total mass of allowable NO_x emissions in lbs for a unit, except as provided for in subsection (k)(3) of this Section.
- E_{act} \equiv Actual NO_x emission rate (lbs/mmBtu) calculated according to the above equation.
- E_{all} \equiv Allowable NO_x emission rate (lbs/mmBtu) calculated according to the above equation, as applicable.
- H \equiv Heat input (mmBtu/30-day rolling average basis) calculated from fuel flow meter and the heating value of the fuel used.
- $C_{d(act)}$ \equiv Actual concentration of NO_x in lb/dscf (ppmv x 1.194 x 10⁻⁷) 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.
- $C_{d(all)}$ \equiv Allowable concentration of NO_x in lb/dscf (allowable emission limit in ppmv specified in Section 217.388(a)(1), except as provided for in subsection (k)(4), (k)(5), (k)(6), or (k)(7) of this Section, if applicable, multiplied by 1.194 x 10⁻⁷) on a dry basis for the fuel used.
- F_d \equiv 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-7, Method 19 or as determined using 40 CFR 60, appendix A-7, Method 19.

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%O_{2d} \equiv 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_{2d}, 18.7 would be used.

i \equiv Subscript denoting an individual unit and the fuel used.

j \equiv Subscript denoting each test run or monitoring pass for an affected unit for a given fuel.

m \equiv 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_x emissions from the affected unit that was replaced should be used in the averaging calculations and the actual NO_x emissions for the electric-powered replacement unit (EM_{act elec(i)}) are zero. Allowable NO_x 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_x emission rate in lb/bhp-hr of the replaced unit. The allowable mass of NO_x emissions from an electric-powered replacement unit (EM_{all elec(i)}) 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_x emission rate of the replaced unit (E_{all rep}) 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:

EM_{all elec(i)} \equiv Mass of allowable NO_x emissions from the electric-powered replacement unit in pounds per 30-day rolling average period.

bhp \equiv Nameplate capacity of the electric-powered replacement unit in brake horsepower.

OP \equiv Operating hours during the 30-day rolling average period.

F \equiv Conversion factor of 0.0077 mmBtu/bhp-hr.

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$E_{all\ rep(i)}$ \equiv Allowable NO_x emission rate (lbs/mmBtu) of the replaced unit.

i \equiv Subscript denoting an individual electric unit and the fuel used.

- 4) For a replacement unit that is not electric, the allowable NO_x emissions rate used in the above equations set forth in subsection (k)(2) of this Section must be the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x 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 (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_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 (k)(2) of this Section must be:
 - A) Prior to the applicable compliance date under Section 217.392, the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x 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 under Section 217.392, the applicable emissions concentration for that type of unit under Section 217.388(a)(1).

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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_x emissions rate used in the above equations set forth in subsection (k)(2) of this Section must be the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x 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.

~~h)~~ Until May 1, 2025, for~~For~~ units that use CEMS, the data must show that the total mass of actual NO_x emissions determined ~~under~~~~pursuant to~~ subsection ~~(h)~~(1) of this Section is less than or equal to the allowable NO_x emissions calculated in accordance with the equations in subsections ~~(h)~~(f) and ~~(h)~~(2) of this Section for both the ozone season and calendar year. The equations in subsection (g) of this Section will not apply. On and after May 1, 2025, for units that use CEMS, the data must show that the total mass of actual NO_x emissions determined under subsection (l)(1) of this Section is less than or equal to the total mass of allowable NO_x emissions calculated in accordance with the equations in subsections (j) and (l)(2) of this Section for each 30-day rolling average period. The equations in subsection (k) of this Section will not apply.

1) The total mass of actual NO_x emissions in lbs for a unit (EM_{act}) must be the sum of the total mass of actual NO_x 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_{all(i)} = Total mass of allowable NO_x emissions in lbs for a unit.
 flow_{ji} = Stack flow (dscf/hr) for a given stack.

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- Cd_j = Allowable concentration of NO_x (ppmv) specified in Section 217.388(a)(1) for a given stack (1.194×10^{-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.

- 3) **Alternatively, for units that monitor fuel flow in accordance with 40 CFR 75, Appendix D, in lieu of monitoring stack flow, the total mass of allowable NOx emissions may be calculated using the following equation:**

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

Where:

- $EM_{all(i)}$ \equiv Total mass of allowable NOx emissions in lbs for a unit.
- H \equiv Heat input (mmBtu) calculated from fuel flow meter and the heating value of the fuel used.
- $C_{d(all)}$ \equiv Allowable concentration of NOx in lb/dscf (allowable emissions concentration in ppmv specified in Section 217.388(a)(1) multiplied by 1.194×10^{-7}) on a dry basis for the fuel used.
- F_d \equiv 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.
- $\%O_{2d}$ \equiv Concentration of oxygen in effluent gas stream measured on a dry basis during each hour used for determining emissions, as represented by a whole number percent, e.g., for 18.7% O_{2d} , 18.7 would be used.
- j \equiv subscript denoting each hour operation of a given unit.
- m \equiv Total number of hours of operation of a unit.
- i \equiv Subscript denoting an individual unit and the fuel used.

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(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 ~~under~~pursuant to Section 217.386(~~c~~b).
- c) 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(e) shall 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. **If an affected engine or turbine does not operate 30 operating days in a calendar year, the owner or operator of the unit must demonstrate compliance on an annual calendar year basis until 30 operating days are accumulated on and after May 1, 2025.**
- ~~d~~e) Before May 1, 2025, owners~~Owners~~ and operators of an affected unit may use NO_x allowances to meet the compliance requirements in Section 217.388 as specified in this subsection (~~d~~e). A NO_x allowance is defined as an allowance used to meet the requirements of a NO_x trading program in which the State of Illinois participates where one allowance is equal to one ton of NO_x emissions.

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- 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 ~~the~~^{such} 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_x emissions resulting from the number of hours that exceeded the operating hour low usage limit and surrender to the Agency one NO_x allowance for each ton or portion of a ton of NO_x 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_x ozone season allowance must be used.

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- 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_x annual allowance may be used.
- E) ~~Despite~~**Notwithstanding** the provisions of subsections ~~(de)~~(2)(C) and ~~(de)~~(2)(D) of this Section, if a NO_x annual trading program does not exist, a NO_x 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.
- e) **Notwithstanding subsection (c), the owner or operator of a turbine subject to this Subpart and located at the petroleum refinery in Channahon must comply with the emissions concentration in Section 217.388(a)(1)(E)(i) on and after May 1, 2025, until January 1, 2028, and must comply with the emissions concentration in Section 217.388(a)(1)(E)(ii) on and after January 1, 2028.**

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

Section 217.394 Testing and Monitoring

- a) ~~Before May 1, 2025, an~~**Before May 1, 2025, an** owner or operator must conduct an initial performance test ~~under~~**pursuant to** subsection ~~(de)~~(1) or ~~(de)~~(2) of this Section as follows:
- 1) 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 ~~under~~**pursuant to** 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:

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- 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.
- b) 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 under 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. If performance testing was already conducted by an owner or operator under subsection (d) within five years before May 1, 2025, the owner or operator is not required to conduct an additional initial performance test.
- cb) An owner or operator of an engine or turbine must conduct subsequent performance tests ~~underpursuant to~~ subsection (cb)(1), (cb)(2), and (cb)(3) of this Section as follows:
 - 1) ~~Affected~~~~For affected~~ engines listed in Appendix G and all units included in an emissions averaging plan must conduct a performance test at the owner or operator's own expense, 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;

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- 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 ~~underpursuant to~~ subsection (de) 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.

~~de~~) Testing Procedures:

- 1) For an engine: The owner or operator must conduct a performance test using Method 7 or 7E of 40 CFR 60, appendix A-4, 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_x 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 ~~underpursuant to~~ subsection (a), ~~or~~ (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_x 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:

- 1) A portable NO_x monitor utilizing method ASTM D6522-~~2000~~, as incorporated by reference in Section 217.104, or a method approved by

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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_x and O₂ concentrations measurements must be taken three times for a duration of at least 20 minutes. Monitoring must be done at highest achievable load **considering the ambient conditions during operation**. 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.

f) 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. Until May 1, 2025, the ~~The~~ CEMS must be used to demonstrate compliance with the applicable emissions concentration or emissions averaging plan only on an ozone season and annual basis. On and after May 1, 2025, the CEMS must be used to demonstrate compliance with the applicable emissions concentration or emissions averaging plan only on a 30-day rolling average basis.

g) The testing and monitoring requirements of this Section do not apply to affected units in compliance with the requirements of the low usage limitations ~~under~~ ~~pursuant to~~ Section 217.388(a)(3) ~~or low usage units using NO_x allowances to comply with the requirements of this Subpart pursuant to Section 217.392(e),~~ unless ~~the~~ ~~such~~ units are included in an emissions averaging plan. ~~Despite~~ ~~Notwithstanding~~ 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.

h) **For an owner or operator of a turbine monitoring in accordance with 40 CFR 75, Appendix E, for the purposes of demonstrating compliance with Section 217.388(a)(1)(E), rather than using substitution data procedures according to 40 CFR 75, Subpart D, the owner or operator of a unit may calculate emissions during periods of operation that are below the minimum operating load tested or above the maximum operating load tested as follows:**

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- 1) **For periods of operation below the minimum operating load tested, the owner or operator must use the concentration measured at the minimum operating load tested in accordance with 40 CFR Part 75, Appendix E.**
- 2) **For periods of operation above the maximum operating load tested, the owner or operator must use the concentration measured at the maximum operating load tested in accordance with 40 CFR Part 75, Appendix E.**

(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 ~~underpursuant to~~ Section 217.386(c**b**), and low usage units) or an affected unit that is not exempt ~~underpursuant to~~ Section 217.386(c**b**) 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) ~~Before May 1, 2025, the~~The number of hours the unit operated on a monthly basis and during each ozone season. On and after May 1, 2025, daily operating hours.
 - 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.
 - ~~6~~5) The results of all monitoring performed on the unit and reported deviations.
 - ~~7~~6) The results of all tests performed on the unit.
 - ~~8~~7) The plan for performing inspection and maintenance of the units, air pollution control equipment, and the applicable monitoring device ~~underpursuant to~~ Section 217.388(a)(4).
 - ~~9~~8) 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

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ratio, timing or other settings).

109) Before May 1, 2025, if~~if~~ 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.

1140) 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.

1244) Any NO_x allowance reconciliation reports submitted under~~pursuant to~~ Section 217.392(de)(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 non-emergency 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, under~~pursuant to~~ Section 217.394(a) and (cb) 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

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- C) Not later than 30 days after the completion of the test, submit the results of the test to the Agency.

D) Notwithstanding subsections (c)(1)(A) through (C), 40 CFR Part 75 affected sources may provide testing notification and protocol submittal in accordance with 40 CFR 75.61(a)(1) and (5) and report in accordance with 40 CFR 75.60(b)(7) requirements.

- 2) ~~Under Pursuant to~~ the requirements for monitoring in Section 217.394(~~ed~~), the owner or operator of the unit must report to the Agency any monitored exceedances of the applicable NO_x 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) Until May 1, 2025, if ~~H~~ 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_x emissions for the ozone season and for the annual control period;
 - ii) The total mass of actual NO_x 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_x emissions are less than the total mass of allowable NO_x emissions using equations in Sections 217.390(~~hf~~) and (~~ig~~); and

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- 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 May 1 following the previous calendar year, the owner or operator must submit to the Agency a report that includes the following:
 - A) For all units that are part of the emissions averaging plan, the total mass of allowable NO_x emissions on a 30-day rolling average basis.
 - B) The total mass of actual NO_x emissions on a 30-day rolling average basis for each unit included in the averaging plan.
 - C) The calculations that demonstrate that the total mass of actual NO_x emissions is less than the total mass of allowable NO_x emissions using equations in Sections 217.390(j) and (k).
 - D) The daily information required to determine the total mass of actual NO_x emissions on a 30-day rolling average basis.
- ~~6~~5) 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.
- ~~7~~6) If using NO_x allowances to comply with the requirements of Section 217.388, reconciliation reports as required by Section 217.392(~~d~~e)(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

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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."

ed) The owner or operator of an affected unit that is complying with the low usage provisions of Section 217.388(a)(3) must:

- 1) Before May 1, 2025, for~~For~~ each unit complying with Section 217.388(a)(3)(A), maintain a record of the NO_x 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

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- 3) Before May 1, 2025, for~~For~~ each unit utilizing NO_x allowances for compliance under~~pursuant to~~ Section 217.392(de)(3), maintain and submit any NO_x allowance reconciliation reports.

- fe) Instead of complying with the requirements of subsection (a) of this Section, subsection (b) of this Section, subsections (c)(1) through (c)(54) of this Section, and subsection (ed) 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 _____)

ILLINOIS REGISTER

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Section 217.APPENDIX I: Compliance Dates for Certain Emission Units at
Petroleum RefineriesPhillips 66 Company (Facility ID 119090AAA)

<u>Point</u>	<u>Emission Unit Description</u>	<u>Compliance Date</u>
<u>0036</u>	<u>CAU Heater</u>	<u>December 31, 2025</u>
<u>0010</u>	<u>HTR-SMR Steam Methane Reformer</u>	<u>December 31, 2026</u>
<u>0033</u>	<u>RAU Heater</u>	<u>December 31, 2027</u>
<u>0085</u>	<u>HDU-1 Heater</u>	<u>December 31, 2027</u>
<u>0088</u>	<u>HDU-2 Heater</u>	<u>December 31, 2027</u>

CITGO Petroleum Corporation (Facility ID 197010AAI)

<u>Point</u>	<u>Emission Unit Description</u>	<u>Compliance Date</u>
<u>0011</u>	<u>Coker 1 Heater</u>	<u>January 1, 2026</u>
<u>0064</u>	<u>Coker 1 Heater</u>	<u>January 1, 2026</u>
<u>0012</u>	<u>Coker 1 Heater</u>	<u>January 1, 2026</u>
<u>0019</u>	<u>No. 2 Catalytic Reformer Charge Heater and Stabilizer Reboiler</u>	<u>July 1, 2026</u>
<u>0066</u>	<u>No. 2 Catalytic Reformer Interheater and Naphtha Stripper Reboiler</u>	<u>July 1, 2026</u>
<u>0069</u>	<u>Reactor Charge Heater</u>	<u>January 1, 2026</u>
<u>0071</u>	<u>No. 1 Catalytic Reformer Reheat Furnace</u>	<u>January 1, 2026</u>
<u>125B-1</u>	<u>Diesel Hydrotreater Feed Heater</u>	<u>January 1, 2026</u>
<u>125B-2</u>	<u>Diesel Hydrotreater Stripper Reboiler</u>	<u>January 1, 2026</u>

CERTIFICATE OF SERVICE

I, the undersigned, an attorney, state the following:

I have electronically served the attached POST-HEARING COMMENTS OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY upon the persons on the attached Service List.

My e-mail address is gina.roccaforte@illinois.gov.

The number of pages in the e-mail transmission is 106.

The e-mail transmission took place before 4:30 p.m. on December 16, 2024.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY,

/s/ Gina Roccaforte
Gina Roccaforte
Assistant Counsel
Division of Legal Counsel

Dated: December 16, 2024

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