

**BEFORE THE ILLINOIS POLLUTION CONTROL BOARD**

IN THE MATTER OF: )  
 )  
AMENDMENTS TO 35 ILL. ADM. CODE 217, ) R24-  
NITROGEN OXIDES EMISSIONS ) (Rulemaking – Air)

**NOTICE**

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

Division Chief of Environmental Enforcement  
Office of the Attorney General  
115 S. LaSalle St.  
Chicago, IL 60603  
[enviro@ilag.gov](mailto:enviro@ilag.gov)

Office of Legal Services  
Illinois Department of Natural Resources  
One Natural Resources Way  
Springfield, IL 62702-1271  
[renee.snow@illinois.gov](mailto:renee.snow@illinois.gov)

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board the RULEMAKING PROPOSAL entitled “AMENDMENTS TO 35 ILL. ADM. CODE 217, NITROGEN OXIDES EMISSIONS,” AND APPEARANCES 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: July 8, 2024

1021 North Grand Avenue East  
P. O. Box 19276  
Springfield, IL 62794-9276  
217/782-5544

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**APPEARANCE**

The undersigned hereby enters her appearance as an attorney on behalf of the Illinois Environmental Protection Agency.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

By: /s/ Dana Vetterhoffer  
Dana Vetterhoffer  
Deputy General Counsel  
Division of Legal Counsel

DATED: July 8, 2024

1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544  
dana.vetterhoffer@illinois.gov

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**APPEARANCE**

The undersigned hereby enters her appearance as an attorney on behalf of the Illinois Environmental Protection Agency.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

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

DATED: July 8, 2024

1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
217/782-5544  
gina.roccaforte@illinois.gov

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**CERTIFICATION OF REQUIRED RULE**

The Illinois Environmental Protection Agency ("Illinois EPA") certifies in accordance with 35 Ill. Adm. Code 102.202(h) and 102.500, and 415 ILCS 5/28.2(b), that a portion of this proposal for amendments to 35 Ill. Adm. Code 217 is a federally required rule under Sections 172 and 182 of the Clean Air Act ("CAA"). 42 U.S.C. §§ 7502 and 7511a. Specifically, this proposed rulemaking is intended to satisfy Illinois' obligation to submit a State Implementation Plan ("SIP") to address the reasonably available control technology ("RACT") requirements under Sections 172 and 182 of the CAA for major stationary sources of nitrogen oxides ("NO<sub>x</sub>") in areas designated as nonattainment with respect to the 2015 8-hour ozone National Ambient Air Quality Standard ("NAAQS"). *See*, 42 U.S.C. §§ 7502 and 7511a.

Under Section 110 of the CAA and related provisions, states are required to submit, for the United States Environmental Protection Agency's ("USEPA") approval, SIPs that provide for the attainment and maintenance of standards established by USEPA through control programs directed to sources of the pollutants involved. 42 U.S.C. §7410. The CAA also provides for the State to address emissions sources on an area-specific basis through such requirements as reasonably available control measures ("RACM") and RACT. *See*, 42 U.S.C. §§7502 and 7511a. For each nonattainment area, the CAA requires the State to demonstrate that it has adopted "all reasonably available control measures as expeditiously as possible (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a

minimum, of reasonably available control technology) and shall provide for attainment of the national primary ambient air quality standards.” 42 U.S.C. § 7502(c)(1). In addition, the CAA requires states to adopt NO<sub>x</sub> RACT for all major stationary sources of NO<sub>x</sub> located in areas designated nonattainment for ozone and classified as Moderate or above. 42 U.S.C. § 7511a(b)(2) and (f).

On October 26, 2015, USEPA revised the primary and secondary NAAQS for ozone to 0.070 ppm. 80 Fed. Reg. 65291 (October 26, 2015). USEPA designated two areas in Illinois as nonattainment for the 2015 ozone NAAQS: The Chicago, IL-IN-WI designated area (“Chicago area”), which includes Cook County, DuPage County, Grundy County (partial--Goose Lake and Aux Sable Townships), Kane County, Kendall County (partial--Oswego Township), Lake County, McHenry County, and Will County, and the St. Louis, MO-IL designated area (“Metro East area”), which includes Madison County, Monroe County, and St. Clair County. 40 CFR § 81.314.

However, on October 7, 2022, USEPA determined that both areas failed to attain the standard by the attainment date, August 3, 2021, and accordingly, they were reclassified by operation of law from Marginal to Moderate for the 2015 ozone NAAQS. 87 Fed. Reg. 60897 (October 7, 2022). The RACT implementation deadline was January 1, 2023. *Id.* Furthermore, SIP revisions associated with these reclassifications were due to the USEPA by no later than January 1, 2023. *Id.* Once reclassified as Moderate, these areas are required to attain the standard as expeditiously as practicable but no later than six years after the initial designation as nonattainment, which would be no later than August 3, 2024. *Id.*

On October 18, 2023, USEPA took final action to find that 11 states, including Illinois, failed to submit SIP revisions required by the CAA by January 1, 2023, for certain nonattainment

areas classified as Moderate for the 2015 ozone NAAQS (in Illinois, the Chicago and Metro East areas). *See, Findings of Failure To Submit State Implementation Plan Revisions for Reclassified Moderate Nonattainment Areas for the 2015 Ozone National Ambient Air Quality Standards*, 88 Fed. Reg. 71757 (October 18, 2023), effective November 17, 2023. This action triggered certain CAA deadlines for the imposition of mandatory sanctions if a state does not submit a complete SIP addressing the outstanding requirements and for USEPA to promulgate a Federal Implementation Plan (“FIP”) if USEPA does not approve the state’s SIP revision addressing the outstanding requirements.

If USEPA has not affirmatively determined that a state has made the required complete SIP submittal for an area within 18 months of the effective date of the finding, which is May 17, 2025, then, pursuant to CAA Section 179(a) and (b) and 40 CFR § 52.31, the offset sanction identified in CAA Section 179(b)(2) will apply in the affected nonattainment areas. *Id.* If USEPA has not affirmatively determined that the state has made the required complete SIP submittal within 6 months after the offset sanction is imposed, then the highway funding sanction will apply in the affected nonattainment areas, in accordance with CAA Section 179(b)(1) and 40 CFR § 52.31. *Id.* The sanctions will not take effect if, within 18 months after the effective date of the findings, the USEPA affirmatively determines that the State has made a complete SIP submittal addressing the deficiency for which the finding was made. *Id.* Additionally, if the State makes the required SIP submittal and the USEPA takes final action to approve the submittal within 2 years of the effective date of these findings, which is November 17, 2025, USEPA is not required to promulgate a FIP for the affected nonattainment areas. *Id.*

The proposed amendments to Part 217 that are federally required are those that will apply to the owner or operator of any of the applicable emission units that emit 15 tons or more of NO<sub>x</sub>

per calendar year at a source that is located in the Chicago or Metro East Moderate nonattainment area and that emits or has the potential to emit NO<sub>x</sub> in an amount equal to or greater than 100 tons per year, including but not limited to emissions limitations and concentrations, testing and monitoring requirements, emissions averaging plans, and recordkeeping and reporting requirements. These provisions are intended to reduce NO<sub>x</sub> emissions and are necessary to satisfy the federal requirements described above.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

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

DATED: July 8, 2024

1021 N. Grand Ave. East  
P.O. Box 19276  
Springfield, IL 62794-9276  
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**MOTION FOR EXPEDITED REVIEW**

NOW COMES Proponent, the Illinois Environmental Protection Agency (“Illinois EPA”), by one of its attorneys, and pursuant to 35 Ill. Adm. Code 101.512, respectfully submits this Motion for Expedited Review (“Motion”). In support of its Motion, the Illinois EPA states as follows:

1. In 2007, 2009, and 2011, the Board adopted amendments to Part 217 of Title 35 of the Illinois Administrative Code to satisfy the nitrogen oxides (“NO<sub>x</sub>”) reasonably available control technology (“RACT”) requirement under Sections 172 and 182 of the Clean Air Act (“CAA”). See, R07-18, *In the Matter of: Fast-Track Rules Under Nitrogen Oxide (NO<sub>x</sub>) SIP Call Phase II: Amendments to 35 Ill. Adm. Code Section 201.146, Parts 211 and 217*, 31 Ill. Reg. 14254 (October 12, 2007); R07-19, *In the Matter of: Section 27 Proposed Rules for Nitrogen Oxide (NO<sub>x</sub>) Emissions From Stationary Reciprocating Internal Combustion Engines and Turbines: Amendments to 35 Ill. Adm. Code Parts 211 and 217* (33 Ill. Reg. 11965 (August 21, 2009); R08-19, *In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217*, 33 Ill. Reg. 13345 (September 25, 2009); and R11-24 and R11-26, *In the Matter of: Nitrogen Oxide (NO<sub>x</sub>) Emissions: Amendments to 35 Ill. Adm. Code 217 (cons.)*, 35 Ill. Reg. 14627 (September 2, 2011).

2. The various Subparts of Part 217 that were the subject of these rulemakings contain provisions relating to the control of NO<sub>x</sub> emissions from various source categories, including emission units within these source categories such as industrial boilers, process

heaters, glass melting furnaces, cement kilns, lime kilns, furnaces used in steel making and aluminum melting, fossil fuel-fired stationary boilers, stationary reciprocating internal combustion engines, and turbines.

3. In 2015, the United States Environmental Protection Agency (“USEPA”) revised both the primary and secondary National Ambient Air Quality Standards (“NAAQS”) for ozone to a level of 0.070 part per million to provide increased protection of public health and the environment. 80 Fed. Reg. 65292 (October 26, 2015). Both the Chicago and Metro East nonattainment areas (“NAAs”) were designated as Marginal nonattainment for the 2015 ozone NAAQS. 83 Fed. Reg. 25776 (June 4, 2018). The attainment date for such Marginal areas was August 3, 2021.

4. However, on April 13, 2022, USEPA proposed to determine that both the Chicago and Metro East NAAs failed to attain the 2015 standard by the attainment date. 87 Fed. Reg. 21842 (April 13, 2022). On October 7, 2022, USEPA determined that the areas failed to attain the standard by the attainment date, and accordingly, were reclassified by operation of law to Moderate for the 2015 ozone NAAQS. 87 Fed. Reg. 60897 (October 7, 2022). The RACT implementation deadline was January 1, 2023. *Id.* Furthermore, State Implementation Plan (“SIP”) revisions associated with these reclassifications were due to the USEPA by no later than January 1, 2023. *Id.*

5. On October 18, 2023, USEPA took final action to find that 11 States, including Illinois, failed to submit SIP revisions required by the CAA by January 1, 2023, for certain nonattainment areas classified as Moderate for the 2015 ozone National Ambient Air Quality Standards (in Illinois, the Chicago and Metro East areas). *See, Findings of Failure To Submit State Implementation Plan Revisions for Reclassified Moderate Nonattainment Areas for the*

*2015 Ozone National Ambient Air Quality Standards* (“Findings of Failure To Submit SIP Revisions”), 88 Fed. Reg. 71757 (October 18, 2023), effective November 17, 2023. This action triggers certain CAA deadlines for the imposition of mandatory sanctions if a state does not submit a complete SIP addressing the outstanding requirements and for USEPA to promulgate a Federal Implementation Plan (“FIP”) if USEPA does not approve the state’s SIP revision addressing the outstanding requirements. *Id.*

7. If USEPA has not affirmatively determined that Illinois has made the required complete SIP submittal for the Chicago and Metro East NAAs within 18 months of the effective date of the finding, which is May 17, 2025, then, pursuant to CAA Section 179(a) and (b) and 40 CFR § 52.31, the offset sanction identified in CAA Section 179(b)(2) will apply in such NAAs. *Id.* The increased new source review emissions offset ratio (2:1) will make it more difficult for new sources to construct in these NAAs. If USEPA has not affirmatively determined that the State has made the required complete SIP submittal within 6 months after the offset sanction is imposed, then the highway funding sanction will apply in the NAAs, in accordance with CAA Section 179(b)(1) and 40 CFR § 52.31. *Id.* This may adversely affect federal funding of new highway projects and would restrict the types of highway projects that the State and local governments can implement.

8. Such sanctions will not take effect if, within 18 months after the effective date of these findings, which is May 17, 2025, USEPA affirmatively determines that the State has made a complete SIP submittal addressing the deficiency for which the finding was made. In addition, if the State makes the required SIP submittal and USEPA takes final action to approve the submittal within 2 years of the effective date of these findings, which is November 17, 2025, USEPA is not required to promulgate a FIP for the NAAs.

14. Due to the impending date of May 17, 2025, to avoid the imposition of sanctions, the regulations need to be adopted in an expedited manner. A large portion of the rulemaking proposal would in fact qualify as a fast-track rulemaking under Section 28.5 of the CAA, as the amendments are federally required and USEPA is authorized to impose sanctions for the State's failure to submit them. However, other portions of the proposal are not currently federally required; namely, the proposed amendments lowering the applicability threshold from 100 tons per year to 50 tons per year are intended to proactively address future CAA requirements, not current ones. The Agency could submit the required amendments as a fast-track rule, and the others in a separate rulemaking submittal, but is instead submitting all proposed amendments to the Board in a single proposal in order to conserve resources.

16. In light of the foregoing, it is necessary to expedite review in this matter.

17. Therefore, the Illinois EPA requests that the Board proceed to First Notice under the Illinois Administrative Procedure Act, 5 ILCS 100/1-1 *et seq.*, as expeditiously as possible.

18. The Illinois EPA believes that the Board possesses the information necessary for the Board to proceed to First Notice in this rulemaking. If more information is needed, the Illinois EPA will fully cooperate to expeditiously provide the same to the Board.

19. As required by 35 Ill. Adm. Code Section 101.512, this Motion is accompanied by an Affirmation attesting that the facts cited herein are true.

WHEREFORE, for the reasons set forth above, the Illinois EPA respectfully requests that the Board grant its Motion and expedite review in this matter.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

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

DATED: July 1, 2024

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**AFFIRMATION**

I, Gina Roccaforte, under oath, hereby state and affirm that I am an Assistant Counsel for the Illinois EPA and the facts cited in the foregoing Motion for Expedited Review are true and correct to the best of my information and belief.

\_\_\_\_\_  
Gina Roccaforte  
Assistant Counsel  
Division of Legal Counsel

SUBSCRIBED AND SWORN TO BEFORE ME

This 1<sup>st</sup> day of July, 2024

\_\_\_\_\_  
*Dawn A. Hollis*  
Notary Public



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**MOTION FOR WAIVER OF REQUIREMENTS**

NOW COMES the Proponent, the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (“Illinois EPA”), by one of its attorneys, and pursuant to 35 Ill. Adm. Code 101.500, 102.200, and 102.402 moves that the Illinois Pollution Control Board (“Board”) waive the requirement that the Illinois EPA provide certain documents incorporated by reference. In support of its Motion, the Illinois EPA states as follows:

1. Section 102.202 of the Board's procedural rules requires that a proposal for a regulation of general applicability include "[a]ny material to be incorporated by reference within the proposed rule pursuant to Section 5-75 of the [Illinois Administrative Procedure Act]" ("IAPA"). 35 Ill. Adm. Code 102.202(d). Section 27(a) of the Environmental Protection Act also requires that the Illinois EPA provide information supporting a regulatory proposal. 415 ILCS 5/27(a).

2. The Illinois EPA's proposal incorporates by reference the following documents:

- A. 40 CFR 60
- B. 40 CFR 63.7540
- C. 40 CFR 75

3. The documents listed as items (A) through (C) above consist of several hundred pages. They are all part of the Code of Federal Regulations, are all readily accessible to or are within the possession of the Board and are all publicly available online. Given the volume and

ease of accessibility of these documents, the Illinois EPA moves that the Board waive the requirement that the Illinois EPA provide such documents.

WHEREFORE, the Illinois EPA moves that the Board waive the requirement that the Illinois EPA provide copies of the documents listed as items (A) through (C) above.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

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

DATED: July 8, 2024

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**STATEMENT OF REASONS**

**I. INTRODUCTION**

The Illinois Environmental Protection Agency (“Illinois EPA” or “Agency”) submits this Statement of Reasons to the Illinois Pollution Control Board (“Board”) pursuant to Sections 4, 10, 27, 28, and 28.2 of the Environmental Protection Act (“Act”) (415 ILCS 5/4, 10, 27, 28, and 28.2) and 35 Ill. Adm. Code 102.202 in support of the attached proposal of regulations. These regulations propose to modify certain requirements under various Subparts of 35 Ill. Adm. Code 217, Nitrogen Oxides Emissions, that contain provisions relating to the control of nitrogen oxides (“NO<sub>x</sub>”) emissions from various source categories in the Chicago, IL-IN-WI nonattainment area (“Chicago NAA”) and the St. Louis, MO-IL nonattainment area (“Metro East NAA”) for the 2015 8-hour ozone National Ambient Air Quality Standard (“NAAQS”). Affected emission units within these source categories include industrial boilers, process heaters, glass melting furnaces, cement kilns, lime kilns, furnaces used in steel making and aluminum melting, fossil fuel-fired stationary boilers, stationary reciprocating internal combustion engines, and turbines.

In 2007, 2009, and 2011, the Board adopted amendments to Part 217 to satisfy the NO<sub>x</sub> reasonably available control technology (“RACT”) requirements under Sections 172 and 182 of the Clean Air Act (“CAA”). *See, R07-18, In the Matter of: Fast-Track Rules Under Nitrogen Oxide (NO<sub>x</sub>) SIP Call Phase II: Amendments to 35 Ill. Adm. Code Section*

201.146, Parts 211 and 217, 31 Ill. Reg. 14254 (October 12, 2007); R07-19, *In the Matter of: Section 27 Proposed Rules for Nitrogen Oxide (NO<sub>x</sub>) Emissions From Stationary Reciprocating Internal Combustion Engines and Turbines: Amendments to 35 Ill. Adm. Code Parts 211 and 217*, 33 Ill. Reg. 11965 (August 21, 2009); R08-19, *In the Matter of: Nitrogen Oxides Emissions from Various Source Categories: Amendments to 35 Ill. Adm. Code Parts 211 and 217*, 33 Ill. Reg. 13345 (September 25, 2009); and R11-24 and R11-26, *In the Matter of: Nitrogen Oxide (NO<sub>x</sub>) Emissions: Amendments to 35 Ill. Adm. Code 217 (cons.)*, 35 Ill. Reg. 14627 (September 2, 2011). Only portions of the adopted regulations, however, were approved by the United States Environmental Protection Agency (“USEPA”) into Illinois’ State Implementation Plan (“SIP”). Others were withdrawn in response to USEPA identifying several deficiencies with the regulations.<sup>1</sup>

This proposed rulemaking is intended to address the deficiencies identified by USEPA and meet certain obligations of the State of Illinois under the CAA, 42 U.S.C. § 7401

<sup>1</sup> In 2007, Subpart Q was filed with the Board under Section 28.5 of the Act, 415 ILCS 5/28.5, and docketed as R07-18; however, the Board concluded that the entire proposal was not “required to be adopted” by the CAA under Section 28.5 of the Act (Board Order, May 17, 2007). As such, the Board bifurcated the proposal and considered under Section 28.5 of the Act only the portion of the proposal applicable to the 28 internal combustion engines affected by the NO<sub>x</sub> SIP Call Phase II. In a new docket, R07-19, the Board considered the remainder of the proposal under the general rulemaking provisions of Sections 27 and 28 of the Act, 415 ILCS 5/27 and 28. In 2009, the provisions of Subpart Q docketed as R07-18 were approved by USEPA for incorporation into the Illinois SIP to satisfy the NO<sub>x</sub> SIP Call Phase II Rule. 74 Fed. Reg. 30466 (June 26, 2009).

Subparts D, E, F, G, H, I, and M were originally adopted by the Board in 2009, *see*, R08-19, *In the Matter of: Nitrogen Oxides (NO<sub>x</sub>) Emissions From Various Source Categories, Amendments to 35 Ill. Adm. Code Parts 211 and 217*, and amended in 2011, *see*, R11-24 and R11-26, *In the Matter of: Nitrogen Oxides (NO<sub>x</sub>) Emissions, Amendments to 35 Ill. Adm. Code 217 (Consolidated: R11-24 and R11-26)*. On September 1 and 2, 2009, and supplemented on October 8, 2009, the Illinois EPA submitted the amendments to Subpart Q docketed as R07-19 and Subparts D, E, F, G, H, I, and M of Part 217 to the USEPA for approval as part of the Illinois SIP to satisfy NO<sub>x</sub> RACT requirements under the CAA. However, in 2011, due to USEPA’s pre-rulemaking feedback, the Illinois EPA withdrew the submittals due to certain deficiencies. *See*, 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>. This rulemaking proposal corrects those deficiencies as well as others subsequently identified by USEPA and adds additional new provisions.

*et seq.*; specifically, to satisfy Illinois' obligation to submit a SIP to address the RACT requirements under Sections 172 and 182 of the CAA for major stationary sources of NO<sub>x</sub> in areas designated as nonattainment with respect to a NAAQS. *See*, 42 U.S.C. §§ 7502 and 7511a.

Under Section 110 of the CAA and related provisions, states are required to submit, for USEPA's approval, SIPs that provide for the attainment and maintenance of standards established by USEPA through control programs directed to sources of the pollutants involved. 42 U.S.C. § 7410. The CAA also provides for the state to address emissions sources on an area-specific basis through such requirements as reasonably available control measures ("RACM") and RACT. *See*, 42 U.S.C. §§ 7502 and 7511a. For each nonattainment area, the CAA requires the state to demonstrate that it has adopted "all reasonably available control measures as expeditiously as possible (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment of the national primary ambient air quality standards." 42 U.S.C. § 7502(c)(1).

Included in this proposal are amendments to Part 217, Nitrogen Oxides Emissions, 35 Ill. Adm. Code 217. The Agency certifies that this proposal amends the most recent version of Part 217 as published on the Board's website.

## **II. STATEMENT OF FACTS**

The CAA establishes a comprehensive program for controlling and improving the nation's air quality by way of state and federal regulations. The USEPA is charged with identifying air pollutants that endanger the public health and welfare and with formulating

the NAAQS that specify the maximum permissible concentrations of those pollutants in the ambient air under Sections 108 and 109 of the CAA. 42 U.S.C §§ 7408-7409.

**A. 8-Hour Ozone NAAQS**

Ozone is a gas composed of three atoms of oxygen. Ozone occurs both in the Earth's upper atmosphere and at ground level. Ground-level ozone is formed when NO<sub>x</sub> and volatile organic compounds (“VOCs”) react in the atmosphere in the presence of sunlight. NO<sub>x</sub> and VOCs are ozone precursors.

On July 18, 1997, USEPA revised the NAAQS for ozone by replacing the 1-hour standard with an 8-hour standard. 62 Fed. Reg. 38856 (July 18, 1997). On March 27, 2008, USEPA revised both the primary and secondary NAAQS for ozone to a level of 0.075 parts per million (“ppm”) (annual fourth-highest daily maximum 8-hour average concentration, averaged over three years) to provide increased protection of public health and the environment. 73 Fed. Reg. 16436 (March 27, 2008). On October 26, 2015, USEPA again revised the primary and secondary NAAQS for ozone to 0.070 ppm. 80 Fed. Reg. 65291 (October 26, 2015).

Both the Chicago and Metro East areas were designated as Marginal nonattainment for the 2015 ozone NAAQS. 83 Fed. Reg. 25776 (June 4, 2018). The attainment date for such Marginal areas was August 3, 2021. However, on October 7, 2022, USEPA determined that both areas failed to attain the standard by the attainment date, and accordingly, they were reclassified by operation of law to Moderate for the 2015 ozone NAAQS. 87 Fed. Reg. 60897 (October 7, 2022). The RACT implementation deadline was May 1, 2023. *Id.* Furthermore, SIP revisions associated with these reclassifications were due to the USEPA by no later than May 1, 2023. *Id.* Once reclassified as Moderate, these areas are required to

attain the standard as expeditiously as practicable but no later than six years after the initial designation as nonattainment, which would be no later than August 3, 2024. *Id.*

On October 18, 2023, USEPA took final action to find that 11 states, including Illinois, failed to submit SIP revisions required by the CAA by May 1, 2023, for certain nonattainment areas classified as Moderate for the 2015 ozone NAAQS (in Illinois, the Chicago and Metro East areas). *See, Findings of Failure To Submit State Implementation Plan Revisions for Reclassified Moderate Nonattainment Areas for the 2015 Ozone National Ambient Air Quality Standards* (“Findings of Failure To Submit SIP Revisions”), 88 Fed. Reg. 71757 (October 18, 2023), effective November 17, 2023. This action triggered certain CAA deadlines for the imposition of mandatory sanctions if a state does not submit a complete SIP addressing the outstanding requirements and for USEPA to promulgate a Federal Implementation Plan (“FIP”) if USEPA does not approve the state’s SIP revision addressing the outstanding requirements.

If USEPA has not affirmatively determined that a state has made the required complete SIP submittal for an area within 18 months of the effective date of the finding, which is May 19, 2025, then, pursuant to CAA Section 179(a) and (b) and 40 CFR § 52.31, the offset sanction identified in CAA Section 179(b)(2) will apply in the affected nonattainment areas. *Id.* If USEPA has not affirmatively determined that the state has made the required complete SIP submittal within 6 months after the offset sanction is imposed, then the highway funding sanction will apply in the affected nonattainment areas, in accordance with CAA Section 179(b)(1) and 40 CFR § 52.31. *Id.* The sanctions will not take effect if, within 18 months after the effective date of the findings, the USEPA affirmatively determines that the State of Illinois has made a complete SIP submittal

addressing the deficiency for which the finding was made. *Id.* Additionally, if the State of Illinois makes the required SIP submittal and the USEPA takes final action to approve the submittal within 2 years of the effective date of these findings, which is November 17, 2025, USEPA is not required to promulgate a FIP for the affected nonattainment areas. *Id.*

The Illinois EPA has reviewed ozone monitoring data available thus far and based upon such evaluation, it is anticipated that the Chicago and Metro East NAAs will fail to attain the ozone standard by the August 3, 2024, attainment date and will be reclassified or “bumped-up” under the CAA from Moderate to Serious nonattainment by USEPA. Such a reclassification imposes additional obligations, including but not limited to the lowering of the major source threshold from 100 tons per year to 50 tons per year. Accordingly, as discussed *infra*, the applicability threshold in the definition of a “major source” decreases from 100 tons per year of NO<sub>x</sub> to 50 tons per year. Sources located in the nonattainment area that have “potential to emit” between 50 tons per year and 100 tons per year will become major sources once a reclassification becomes effective. To address this anticipated reclassification, the Illinois EPA is lowering the major source threshold for both the Chicago and the Metro East NAAs in this rulemaking proposal from 100 tons per year of NO<sub>x</sub> to 50 tons per year of NO<sub>x</sub>.

### **B. Clean Air Act Requirements**

States are primarily responsible for ensuring attainment and maintenance of NAAQS once USEPA has established them. Under Section 110 of the CAA and related provisions, states are to submit, for USEPA approval, SIPs that provide for the attainment and maintenance of such standards through control programs directed to sources of the pollutants involved. 42 U.S.C. § 7410. Additional requirements include Section 172 of Subpart 1,

Nonattainment Areas in General, and Section 182 of Subpart 2, Additional Provisions for Ozone Nonattainment Areas, under Part D, Plan Requirements for Nonattainment Areas. 42 U.S.C. § 7502 and § 7511a. *See also, National Ambient Air Quality Standards for Ozone, Final Rule*, 80 Fed. Reg. 65292 (October 26, 2015), and *Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements, Final Rule*, 83 Fed. Reg. 62998 (December 6, 2018).

Under Section 172(c)(1), states with nonattainment areas are required to submit, in part, SIPs that provide for the adoption of RACM for stationary sources in all nonattainment areas as expeditiously as possible. 42 U.S.C. § 7502(c)(1). Section 172(c)(1) of the CAA provides, in relevant part, as follows:

(c) Nonattainment plan provisions

The plan provisions (including plan items) required to be submitted under this part shall comply with each of the following:

(1) In general

Such plan provisions shall provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from existing sources in the area as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment of the national primary ambient air quality standards.

\* \* \*

42 U.S.C. §7502(c)(1). A subset of RACM is RACT requirements. RACT is defined as the lowest emission limitation that a particular source can meet by applying a control technique that is reasonably available considering technological and economic feasibility. *See, 44 Fed. Reg. 53762* (September 17, 1979). Section 182(b)(2) of the CAA requires states to adopt RACT rules for all areas designated nonattainment for ozone and classified as Moderate or above. Section 182(b)(2) of the CAA states, in part, as follows:

(b) Moderate Areas

Each State in which all or part of a Moderate Area is located shall, with respect to the Moderate Area, make the submissions described under subsection (a) of this section (relating to Marginal Areas), and shall also submit the revisions to the applicable implementation plan described under this subsection.

\* \* \*

(2) Reasonably available control technology

The State shall submit a revision to the applicable implementation plan to include provisions to require the implementation of reasonably available control technology under section 7502(c)(1) of this title with respect to each of the following:

- (A) Each category of VOC sources in the area covered by a CTG document issued by the Administrator between November 15, 1990, and the date of attainment.
- (B) All VOC sources in the area covered by any CTG issued before November 15, 1990.
- (C) All other major stationary sources of VOCs that are located in the area.

\* \* \*

42 U.S.C. §7511a(b)(2). In addition, under Section 182(f) of the CAA, an overlapping requirement in each state in which all or part of a Moderate area is located is the adoption of RACT for major NO<sub>x</sub> sources. 42 U.S.C. § 7511a(f). Section 182(f) of the CAA states, in pertinent part, as follows:

(f) NO<sub>x</sub> requirements

- (1) The plan provisions required under this subpart for major stationary sources of volatile organic compounds shall also apply to major stationary sources (as defined in section 7602 of this title and subsections (c), (d), and (e) of this section) of oxides of nitrogen. \* \* \*

42 U.S.C. §7511a(f). Except as otherwise expressly provided, Section 302(j) of the CAA defines “major stationary source” as any stationary facility or source of air pollutants that directly emits, or has the potential to emit, one hundred tons per year or more of any air



pollutant. 42 U.S.C. § 7602(j). For Serious ozone nonattainment areas, however, a “major source” or “major stationary source” is defined by Section 182(c) of the CAA as a source that emits, or has the potential to emit, at least 50 tons per year of VOCs [or NO<sub>x</sub>]. 42 U.S.C. § 7511a(c).

These sections of the CAA, taken together, establish the requirements for Illinois to submit NO<sub>x</sub> RACT regulations for all major stationary sources of NO<sub>x</sub> in ozone nonattainment areas classified as Moderate. *See also*, 40 CFR § 51.1312.

### **C. Deficiencies in Current NO<sub>x</sub> RACT Regulations**

As noted above, USEPA previously identified several deficiencies in the Part 217 NO<sub>x</sub> RACT regulations. Specifically, USEPA indicated that an emissions averaging plan is a type of Economic Incentive Program (“EIP”) covered by USEPA’s *Improving Air Quality with Economic Incentive Programs*, EPA-452/R-01-001 (January 2001), which provides guideline requirements for emissions trading programs. USEPA noted 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<sub>x</sub> sources controlled for purposes of attaining the ozone standard cannot allow averaging times longer than 30 days. USEPA also noted a few changes under the recordkeeping and reporting requirements, including the requirement that compliance records reflect the 30-day averaging period and the inclusion of annual hours of operation of emergency or standby units in non-emergency situations, and provisions relating to NO<sub>x</sub> allowances, including but not limited to the prohibition on the use of NO<sub>x</sub> allowances to offset excess emissions within a NAA where such allowances were generated

outside of a NAA. Accordingly, the Illinois EPA has attempted to remedy these issues in this proposal.

USEPA was also given the opportunity to review a draft of the Agency's current proposal and recommended that the Agency make changes to some of the applicability thresholds and emissions limitations and concentrations for various emission units based upon other states' RACT assessments. The Agency's implementation of those comments is set forth in more detail in the *Technical Support Document for Proposed Rule Revisions for Part 217*, AQPSTR 24-02, June 2024, prepared by the Illinois EPA ("*Technical Support Document*"). Additionally, the Illinois EPA has made some changes consistent with the Federal "Good Neighbor Plan" for the 2015 Ozone National Ambient Air Quality Standards ("Good Neighbor FIP"), 88 Fed. Reg. 36654 (June 5, 2023).<sup>2</sup>

#### **D. SIP Submittal**

This proposal is intended to be submitted to USEPA as a revision to the Illinois SIP, as several of the sections being amended are part of Illinois' SIP under the CAA. SIP revisions are required to undergo 30-day public notice and opportunity for hearing before they may be submitted to USEPA for approval pursuant to 40 CFR § 51.102 and Appendix V, 2.1(g). The Board's procedural rules provide for notice that meets this requirement, as set forth at 35 Ill. Adm. Code 102.416. The notice, to be sufficient, must describe the revisions, in this case the amendments to Part 217, and indicate that the adopted rules will be submitted to USEPA as a SIP revision.

<sup>2</sup> Recently, several entities that had challenged the Good Neighbor FIP in the D.C. Circuit Court of Appeals sought a stay of the Good Neighbor FIP. The Supreme Court of the United States granted the stay, halting enforcement of the FIP against the applicants for a stay pending the disposition of the applicants' petition for review in the D. C. Circuit. *See, Ohio v. EPA*, 2024 U.S. Lexis 2846 (2024). The State of Illinois is not a party to the underlying litigation and did not seek or receive a stay. While the Supreme Court has temporarily stayed enforcement of the Good Neighbor FIP as to the parties before it pending further appellate review, USEPA's technical analysis concerning control technologies, as explained further in the TSD, remains sound.

The Illinois EPA therefore requests that the following statement be included in the Board's public notice for this proposal:

If adopted by the Board, the Illinois EPA will submit the proposed amendments to 35 Ill. Adm. Code 217 relating to the control of nitrogen oxides emissions from various source categories to the United States Environmental Protection Agency ("USEPA") for review and approval as a revision to Illinois' State Implementation Plan ("SIP") to address the reasonably available control technology requirements for nitrogen oxides under Sections 172 and 182 of the Clean Air Act ("CAA"), 42 U.S.C. §§ 7502 and 7511a, for major stationary sources in areas designated as nonattainment with respect to the 2015 8-hour ozone National Ambient Air Quality Standard ("NAAQS"). The Illinois EPA will also submit to USEPA the proposed amendments to Part 217 relating to sources affected by the October 27, 1998, NO<sub>x</sub> SIP Call, including existing reciprocating internal combustion engines not located in the above nonattainment areas, for review and approval as a revision to Illinois' SIP concerning the SIP Call. The revisions submitted to USEPA will include amendments to current regulatory provisions as well as an analysis demonstrating that the proposal does not interfere with attainment or maintenance of any applicable NAAQS, reasonable further progress, or any other applicable requirement of the CAA. This notice is intended to satisfy the requirements of Section 110(1) of the CAA, 42 U.S.C. § 7410(1) (public notice for SIP revisions).

### **III. PURPOSE AND EFFECT OF THE PROPOSAL**

As discussed *supra*, this rulemaking proposal has been prepared to satisfy Illinois' obligation to submit a SIP to address the requirements under Sections 172 and 182 of the CAA for major stationary sources of NO<sub>x</sub> in areas designated as nonattainment with respect to the 2015 8-hour ozone standard. Specifically, the rule proposal will address Illinois' obligation to adopt NO<sub>x</sub> RACT regulations for all major stationary sources of NO<sub>x</sub> in ozone nonattainment areas classified as Moderate. *See also*, 40 CFR § 51.1312. It will also address USEPA's Finding of Failure To Submit SIP Revisions, which started an 18-month emission offset sanctions clock and 24-month highway funding sanctions clock and 24-month FIP clock under Section 179(a) and (b) and 110(c) of the CAA. 42 U.S.C. §§ 7509(a) and (b) and 7410(c). Finally, the rule proposal will proactively address Illinois' obligation to adopt NO<sub>x</sub>

RACT regulations for major stationary sources of NO<sub>x</sub> in ozone nonattainment areas classified as Serious.

The Illinois EPA's regulatory proposal aims to address USEPA's identified deficiencies and lower emissions limitations in Illinois from several source categories while providing flexibility for the affected sources. In general, Part 217 sets standards and limitations for emissions of NO<sub>x</sub> from stationary sources. Subpart A of Part 217 includes general provisions, Subpart D comprises general requirements that apply to Subparts E, F, G, H, I, M, and Q, and these Subparts encompass emission units within various source categories including industrial boilers under Subpart E, process heaters under Subpart F, glass melting furnaces under Subpart G, cement and lime kilns under Subpart H, furnaces used in steel making and aluminum melting under Subpart I, fossil fuel-fired stationary boilers under Subpart M, and stationary reciprocating internal combustion engines and turbines under Subpart Q.

Subparts D, E, F, G, H, I, M, and Q currently apply to sources that emit or have the potential to emit 100 tons per year or more of NO<sub>x</sub> emissions that are located in the specified NAAs. Subparts D, E, F, G, H, I and M apply to emission units that are located at subject sources and that emit NO<sub>x</sub> in an amount equal to or greater than 15 tons per year and equal to or greater than 5 tons per ozone season. 35 Ill. Adm. Code 217.150; *see also*, R07-19 and R08-19. Subpart Q applies to stationary reciprocating internal combustion engines and turbines that are located at subject sources and that meet certain specified criteria; Subpart Q also applies to engines listed in Appendix G of Part 217, and these engines are not located in the NAAs. 35 Ill. Adm. Code 217.386; *see also*, R07-18. Compliance with the limitations and concentrations for emissions of NO<sub>x</sub> from such stationary sources is currently required

on an ozone season and annual basis.

As stated *supra*, to address the anticipated reclassification of the Chicago NAA, the Illinois EPA is lowering the major source threshold in this rulemaking proposal from an amount equal to or greater than 100 tons per year of NO<sub>x</sub> to an amount equal to or greater than 50 tons per year of NO<sub>x</sub>. To address deficiencies identified by the USEPA, the Agency is requiring emissions averaging plan compliance on a 30-day rolling average basis. In addition, compliance with emissions limitations and concentrations is also on a 30-day rolling average basis. For Subparts D, E, F, G, H, I and M, the Agency is changing the emission unit applicability threshold by eliminating the 5 tons per ozone season provision.

In addition, beginning May 1, 2025, the threshold for industrial boilers and process heaters subject to an emissions limitation is being lowered from greater than 100 million British thermal units per hour (mmBtu/hr) to greater than 50 mmBtu/hr, and industrial boilers and process heaters less than or equal to 50 mmBtu/hr are subject to combustion tuning requirements at least annually in accordance with 40 CFR § 63.7540(a)(10)(i) through (vi). Furthermore, beginning May 1, 2025, the proposal adds new NO<sub>x</sub> emissions limitations for certain industrial boilers, glass melting furnaces, cement kilns, and iron and steel reheat, annealing, and galvanizing furnaces and new NO<sub>x</sub> emissions concentrations for certain stationary reciprocating internal combustion engines and turbines.

A section-by-section summary of the Illinois EPA's regulatory proposal is set forth *infra*.

#### **IV. GEOGRAPHIC REGIONS AND SOURCES AFFECTED**

The geographic regions subject to the proposed regulations are the two areas designated as nonattainment for the 2015 8-hour ozone standard that collectively comprise

the Chicago NAA, which includes Cook County, DuPage County, Grundy County (partial--Goose Lake and Aux Sable Townships), Kane County, Kendall County (partial--Oswego Township), Lake County, McHenry County, and Will County, and the Metro East NAA, which includes Madison County, Monroe County, and St. Clair County.<sup>3</sup> 40 CFR § 81.314. These areas designated as nonattainment include areas of environmental justice concern. The proposed Subpart Q regulations also impact the geographic area where the facilities listed in Section 217. Appendix G are located—Kendall, Clinton, Henry, McLean, Sangamon, Douglas, Pike, and Jo Daviess counties. The proposed regulations affect existing and new units. Such units in the nonattainment areas in Illinois that will be subject to Subparts D, E, F, G, H, I, and M include industrial boilers, process heaters, glass melting furnaces, cement kilns, lime kilns, furnaces used in iron and steel making, and fossil fuel-fired stationary boilers. Such units in Illinois that will be subject to Subpart Q include stationary reciprocating internal combustion engines and turbines. The sources expected to be affected by the proposed rulemaking are set forth in Appendix to the *Technical Support Document*.

Beginning May 1, 2025, the proposed regulations are expected to apply to the owner or operator of any industrial boiler, process heater, glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, aluminum reverberatory or crucible furnace, and fossil fuel-fired stationary boiler that emits 15 tons or more of NO<sub>x</sub> per calendar year and is located at a source in the Chicago and Metro East NAAs that emits or has the potential to emit NO<sub>x</sub> in an amount equal to or greater than 50 tons per year. In

<sup>3</sup> The Agency's proposal removes Jersey County and Baldwin Village in Randolph County from the applicability provisions in Sections 217.150 and 217.386. These areas were part of the Metro East NAA for the 1997 8-hour ozone standard and the 1997 annual particulate matter, 2.5 micrometers or smaller in size, standard that were in place when the regulations were originally adopted by the Board. The areas are not part of the NAA for the 2015 8-hour ozone standard, however. Removing these areas should not have any impact, as there are no sources in Jersey County or Baldwin Village currently subject to these regulations.

addition, beginning May 1, 2025, the proposed regulations are expected to apply to the owner or operator of a stationary reciprocating internal combustion engine listed in Appendix G of Part 217 and certain stationary reciprocating internal combustion engines and turbines at sources that are located in the Chicago and Metro East NAAs that emit or have the potential to emit NO<sub>x</sub> in an amount equal to or greater than 50 tons per year.

#### **V. TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS**

The Illinois EPA has concluded that affected sources can meet the requirements of the proposed rule through several control techniques such that compliance is both technically feasible and economically reasonable. A more detailed discussion is set forth in the *Technical Support Document* and supporting documentation. *See, Technical Support Document.*

#### **VI. COMMUNICATION WITH INTERESTED PARTIES**

The Illinois EPA engaged in outreach on this proposal. On or about February 8, 2024, the Illinois EPA shared a draft of the proposed rule with potentially affected sources, environmental groups, industry organizations, environmental justice organizations, and persons who request notice of such matters, and on or about February 15, 2024, the Illinois EPA posted the draft on its website for public comment. Discussions were also held at the request of groups and companies affected by the proposal.

The Illinois EPA received extensive comments on the draft rule, and this proposal incorporates many of the concerns and suggestions put forth in these comments. Such comments can generally be categorized into the following areas: applicability, applicability thresholds, compliance date, compliance averaging times, emissions averaging plans, exemptions, testing and monitoring, and emissions limitations and concentrations. These

regulations are being proposed after the interested parties have had an opportunity to review the proposal and discuss any issues with the Illinois EPA.

**VII. SYNOPSIS OF TESTIMONY AND  
REQUEST FOR HEARINGS BY VIDEOCONFERENCE**

The Illinois EPA anticipates calling Rory Davis, Regulatory Development Unit Manager, Air Quality Planning Section, Bureau of Air, Illinois EPA, as a witness at hearing. Mr. Davis will testify regarding the amendments proposed by the Illinois EPA. Written testimony will be submitted prior to hearing in accordance with the Board's procedural rules. Mr. Davis will be available for questions.

In addition, Section 102.114 of the Board's procedural rules states, "Hearings will be conducted under 35 Ill. Adm. Code 101.Subpart F, including any hearing held by videoconference (see 35 Ill. Adm. Code 101.600(b))." 35 Ill. Adm. Code 102.114. Section 101.600(a) states, in part, "The hearings will be held at locations ordered by the hearing officer. The hearing officer will select hearing locations that comply with any geographic requirements imposed by applicable law and, to the extent feasible, promote the attendance of interested members of the public, the convenience of the parties, and the conservation of the Board's resources." 35 Ill. Adm. Code 101.600(a).

Furthermore, Section 101.600(b) states, "Any Board hearing may be held by videoconference. Upon its own motion or the motion of any party, the Board or the hearing officer may order that a hearing be held by videoconference. In deciding whether a hearing should be held by videoconference, factors that the Board or the hearing officer will consider include cost-effectiveness, efficiency, facility accommodations, witness availability, public interest, the parties' preferences, and the proceeding's complexity and contentiousness." 35 Ill. Adm. Code 101.600(b). As such, to minimize expenses and conserve State resources, the



Illinois EPA respectfully requests that the hearings under this rulemaking proposal be held by videoconference. The Illinois EPA is available for hearings, except for the following dates: July 25-26, 31, August 1, 9, 12, 13, 21-26, September 6, 30, October 1-16, 31, November 1, 12, 18, December 20-27, 30-31, and January 17-24, 2025.

## **VIII. THE ILLINOIS EPA'S PROPOSAL**

The following is a Section-by-Section summary of the Illinois EPA's proposal. Any inconsistencies between the summary below and the proposed rule revisions are unintentional and should not be read as altering the proposed rule revisions.

### **35 Ill. Adm. Code 217**

#### **Subpart A: General Provisions**

##### **Section 217.101**      **Measurement Methods**

The Illinois EPA is proposing to update the citations to a couple of the measurement methods of nitrogen oxides.

##### **Section 217.102**      **Abbreviations and Units**

The Illinois EPA is proposing to add predictive emission monitoring system (PEMS) to the abbreviations used in this Part.

##### **Section 217.104**      **Incorporations by Reference**

The Illinois EPA is proposing to remove outdated materials, update a few materials, and add a federal regulation governing combustion tuning requirements.

#### **Subpart D: NO<sub>x</sub> General Requirements**

##### **Section 217.150**      **Applicability**

This Section addresses the applicability of Subparts D, E, F, G, H, I and M of Part 217. Subsection (a)(1) includes the applicability criteria before May 1, 2025. A new

subsection (a)(2) includes the applicability criteria on and after May 1, 2025, which states that Subparts D, E, F, G, H, I, and M of Part 217 shall apply to the owner or operator of an affected emission unit 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<sub>x</sub> 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; or (ii) The area composed of the Metro East area counties of Madison, Monroe, and St. Clair; and (B) The emission unit emits 15 tons or more of NO<sub>x</sub> to the atmosphere per calendar year.

Subsection (c) is amended to provide that the provisions of Subpart D and Subparts E, F, G, H, I, and M do not apply to afterburners, flares, and incinerators.

Subsection (d) is being deleted because the provision refers to an application for a construction permit submitted to the Agency prior to the adoption of Subpart D, and that date was August 31, 2009. This subsection currently has no practical effect and is therefore being removed.

**Section 217.152**      **Compliance Date and 30-day Rolling Average Basis**

The heading of this Section is amended. A new subsection (a) is added to provide that on and after May 1, 2025, the owner or operator of an emission unit subject to the requirements of Subparts D, E, F, G, H, I, and M must comply with the requirements of the applicable Subparts, and compliance with emissions limitations is 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.

Subsections (a)(1) and (2) are also added and state that a 30-day rolling average under Subparts E, F, I, and M is calculated using the total mass of emissions from such period and the total heat input from such period, and a 30-day rolling average under Subparts G and H is calculated using the total mass of emissions from such period and the total amount of glass, clinker, or lime produced in such period.

Subsection (a-5) is added to provide that the owner or operator of an emission unit that is constructed or modified on or after May 1, 2025, and that is subject to Subpart D and Subpart E, F, G, H, I, or M shall comply with the applicable Subparts within 180 days after initial startup of the new or modified emission unit.

**Section 217.154**      **Initial Performance Testing**

This Section is amended by renaming the heading, modifying dates, deleting a dependent clause, and changing the terms “continuous emissions monitoring system” and “predictive emission monitoring system” to the acronyms “CEMS” and “PEMS”, respectively. Amendments are made in this Section and throughout the Subparts referencing the acronyms. In addition, an amendment to subsection (a) adding reference to PEMS and combustion tuning is being made to read identically to subsection (b).

**Section 217.155**      **Initial Compliance Certification**

Subsection (a) is amended to provide that it applies before May 1, 2025, and a new subsection (b) is added to provide that on and after May 1, 2025, 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 Part 217 must certify to the Agency that the

emission unit will be in compliance with the applicable emissions limitations of the applicable Subpart. For emission units demonstrating compliance through performance testing, the certification must include the results of the performance testing performed in accordance with Sections 217.157 and the calculations necessary to demonstrate that the subject emission unit will be in initial compliance with the Subpart, as applicable. 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. This new subsection (b) also adds similar certification requirements for the owner or operator of emission units constructed or modified on or after May 1, 2025.

**Section 217.156**      **Recordkeeping and Reporting**

Subsection (b) is amended to require that the owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M maintain records that demonstrate compliance with the applicable Subpart that include the following: (b)(3) Before May 1, 2025, monthly, seasonal, and annual operating hours, and on and after May 1, 2025, daily operating hours; and (b)(4) Before May 1, 2025, type and quantity of each fuel used monthly, seasonally, and annually, and on and after May 1, 2025, type and quantity of each fuel used daily. Subsection (b)(5) is added requiring on and after May 1, 2025, total mass emissions on a daily basis and on a 30-day rolling average basis. Subsection (b)(12) is amended to provide that before May 1, 2025, if complying with the emissions averaging plan provisions of Section 217.158, an owner or operator must maintain 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.

Subsection (g) is amended to provide for its applicability until May 1, 2025, and also to provide that 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 such 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.

Subsection (i) is amended to provide for its applicability until May 1, 2025. Subsection (i-5) is added to provide that on and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by March 1 following the previous calendar year, the owner or operator must submit to the Agency a report that includes the following: (1) For all units that are part of the emissions averaging plan, the total mass of allowable NO<sub>x</sub> emissions on a 30-day rolling average basis; (2) The total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis for each unit included in the averaging plan; (3) The calculations that demonstrate that the total mass of actual NO<sub>x</sub> emissions is less than the total mass of allowable NO<sub>x</sub> emissions using equations in Section 217.158(f-5); and (4) The daily information required to determine the total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis. Accordingly, an owner or operator demonstrating compliance through an emissions averaging plan must submit a report to the Agency by March 1, 2026, for calendar year 2025.

Subsection (k) is amended to state that until May 1, 2025, the owner or operator of an emission unit subject to Subpart M shall 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. It also states that on and after May 1, 2025, the owner or operator of an emission unit subject to Subpart M must comply with the compliance certification and recordkeeping and reporting requirements in accordance with 40 CFR 75, or an alternate procedure approved by the Agency and USEPA. Part 96 is the NO<sub>x</sub> Budget Trading Program and Clean Air Interstate Rule (“CAIR”) NO<sub>x</sub> and SO<sub>2</sub> Trading Programs for SIPs, and the Cross-State Air Pollution Rule replaced the CAIR beginning in 2015; accordingly, reference is now made to Part 75, Continuous Emission Monitoring.

Subsection (l) is added to provide that, beginning May 1, 2025, the owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M must submit an annual compliance certification report, including its contents, 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).

**Section 217.157**      **Testing and Monitoring**

Amendments are made throughout this Section referencing the CEMS and PEMS acronyms, in addition to updating the citations to test methods. A new subsection (a)(3-5) is also being added to provide that 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 pursuant to subsection (a)(7)(A) of this Section and Section 217.154, and subsequent performance tests conducted in accordance with subsection (a)(7) of this Section. As explained below, a new subsection

(a)(7) addresses the requirements for performance tests, and similar changes regarding performance test specifics are also being made in subsection (a)(4) and (a)(6), in addition to the deletion of subsections (a)(4)(A) and (B).

In addition, subsection (a)(5) is amended to provide that a CEMS may 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.

A new subsection (a)(7) is being added to provide that all required performance tests must be conducted at the owner or operator's sole expense and must meet the requirements in subsection (a)(7)(A). All performance tests required by subsection (a) subsequent to an initial performance test must also meet the requirements in subsection (a)(7)(B). Subsection (a)(7)(A) sets forth performance test parameters, and subsection (a)(7)(B) provides that a performance test must be conducted at least once every five years.

Subsection (b)(3)(A) is amended for clarification purposes by replacing the various types of individual emission units subject to Subpart G, H, or I with "all such units, including those that are addressed in an emission averaging plan" and requiring subsequent performance tests at least once every five years at the owner or operator's expense.

Subsection (b)(4) updates the citations to test methods, and subsection (b)(5) is amended to provide that a CEMS may 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.

Subsection (c) is amended to state that until May 1, 2025, the owner or operator of a fossil fuel-fired stationary boiler subject to Subpart M must install, calibrate, maintain, and

operate a CEMS on such emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with 40 CFR Part 96, Subpart H. It also states that on and after May 1, 2025, the owner or operator of such a boiler must install, calibrate, maintain, and operate a CEMS on such emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with 40 CFR 75. As stated above under Section 217.156, Part 96 is the NO<sub>x</sub> Budget Trading Program and Clean Air Interstate Rule (“CAIR”) NO<sub>x</sub> and SO<sub>2</sub> Trading Programs for SIPs, and the Cross-State Air Pollution Rule replaced the CAIR beginning in 2015; accordingly, reference is now made to Part 75, Continuous Emission Monitoring.

Subsection (f) is amended to provide that a PEMS may 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.

**Section 217.158**      **Emissions Averaging Plans**

Subsection (a) is amended to update the reference to the applicability provisions under Section 217.150(a)(2)(A)(i) or (ii) in which an owner or operator of a source may demonstrate compliance through an emissions averaging plan and limit applicability of certain provisions before May 1, 2025. Subsection (a)(1)(B) is amended to limit its applicability before May 1, 2025. A new subsection (a)(1)(B-5) is being added to provide that on and after May 1, 2025, units that are not otherwise subject to Subpart E, F, G, H, I, or M, as applicable, under Section 217.150(a)(2)(B), but that the owner or operator chooses to include in an emissions averaging plan, may be included in an emissions averaging plan. For as long as such 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. In addition, subsection (a)(2)(B) is amended to limit its applicability before May 1, 2025.

Subsection (b) is amended to limit its applicability before May 1, 2025, and a new subsection (b-5) is added to provide that 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, as applicable; (3) A sample calculation demonstrating compliance using the methodology provided in subsection (f-5) on a 30-day rolling average basis; and (4) The date the owner or operator will begin using the emissions averaging plan. Therefore, if an owner or operator intends on using an emissions averaging plan on May 1, 2025, such owner or operator must submit the emissions averaging plan to the Agency at least 30 days before May 1, 2025.

Subsection (c) is amended by removing certain provisions related to amended emissions averaging plans. Subsection (d)(2) is amended to limit its applicability before May 1, 2025.

A new subsection (d)(3) is being added to provide that 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 such unit within 30 days after the unit becomes subject to the applicable Subpart.

Subsection (e)(1) is amended to limit its applicability until May 1, 2025, and subsection (e)(2) is added to provide that on and after May 1, 2025, an owner or operator must 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 pursuant to subsection (b-5), the monitoring data or test data determined pursuant to Section 217.157, and the actual hours of operation for the applicable averaging plan period. In addition, subsection (e)(3) is amended to provide that until May 1, 2025, an owner or operator must 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, an owner or operator must submit to the Agency, by March 1 following each calendar year, a compliance report containing the information required by Section 217.156(i-5).

Subsection (f) is amended to limit its applicability until May 1, 2025. Subsection (f-5) is added to provide that on and after May 1, 2025, the total mass of actual NO<sub>x</sub> emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO<sub>x</sub> emissions for those units on a 30-day rolling average basis. This new subsection also includes the equations addressing the 10 percent environmental write-off on calculated allowable emissions to generate an environment benefit and to determine compliance.

Subsection (g) is amended similarly to subsection (a) by updating the reference to the applicability provisions under Section 217.150(a)(2)(A)(i) or (ii) in which an owner or operator of a source may demonstrate compliance through an emissions averaging plan. Subsections (h), (i), and (j) are amended to limit their applicability until May 1, 2025.

**Subpart E: Industrial Boilers**

**Section 217.160**      **Applicability Exemptions**

This Section is amended by renaming the heading, deleting subsection (a), and adding a new subsection (c) that provides before May 1, 2025, the provisions of this Subpart do not apply to an industrial boiler operating under a federally enforceable limit of NO<sub>x</sub> emissions from such boiler to less than 15 tons per year and less than five tons per ozone season.

**Section 217.162**      **Exemptions**

This Section is being repealed because its provisions are now set forth in Section 217.160.

**Section 217.164**      **Emissions Limitations**

Subsection (a) is being amended to provide that its current provisions requiring that compliance be demonstrated with the applicable emissions limitation on an ozone season and annual basis apply until May 1, 2025, and that on and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.

In addition, beginning May 1, 2025, the threshold for an industrial boiler being subject to an emissions limitation is being lowered from greater than 100 mmBtu/hr to greater than 50 mmBtu/hr; industrial boilers less than or equal to 50 mmBtu/hr are subject to combustion tuning requirements. Furthermore, beginning May 1, 2025, the NO<sub>x</sub> emissions limitations for industrial boilers are being added as follows: For industrial boilers burning natural gas or other gaseous fuels greater than 50 mmBtu/hr, 0.08 pound per million Btu (lb/mmBtu); industrial boilers burning distillate fuel oil greater than 50 mmBtu/hr, 0.10 lb/mmBtu; industrial boilers burning other liquid fuels greater than 50 mmBtu/hr, 0.15 lb/mmBtu; industrial boilers burning solid fuel greater than 50 mmBtu/hr, circulating

fluidized bed combustor, 0.10 lb/mmBtu; industrial boilers greater than 250 mmBtu/hr, 0.15 lb/mmBtu; and industrial boilers greater than 50 but less than or equal to 250 mmBtu/hr, 0.20 lb/mmBtu.

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

Subsection (a) is being amended to limit its applicability until May 1, 2025. A new subsection (b) is being added to specify that on and after May 1, 2025, the owner or operator of an industrial boiler subject to the combustion tuning requirements of Section 217.164 shall 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.

**Subpart F: Process Heaters**

**Section 217.180**      **Applicability Exemptions**

This Section is amended by renaming the heading, deleting the current applicability provision, and adding that before May 1, 2025, the provisions of this Subpart do not apply to a process heater operating under a federally enforceable limit of NO<sub>x</sub> emissions from such heater to less than 15 tons per year and less than five tons per ozone season.

**Section 217.182**      **Exemptions**

This Section is being repealed because its provisions are now set forth in Section 217.180.

**Section 217.184**      **Emissions Limitations**

This Section is being amended to provide that its current provisions requiring that compliance be demonstrated with the applicable emissions limitation on an ozone season and

annual basis apply until May 1, 2025, and that on and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.

In addition, beginning May 1, 2025, the threshold for a process heater being subject to an emissions limitation is being lowered from greater than 100 mmBtu/hr to greater than 50 mmBtu/hr; process heaters less than or equal to 50 mmBtu/hr are subject to combustion tuning requirements. Furthermore, beginning May 1, 2025, the NO<sub>x</sub> emissions limitations for process heaters are being added as follows: For process heaters burning natural gas or other gaseous fuels greater than 50 mmBtu/hr, 0.08 lb/mmBtu; process heaters burning residual fuel oil greater than 50 mmBtu/hr, natural draft, 0.10 lb/mmBtu; process heaters burning residual fuel oil greater than 50 mmBtu/hr, mechanical draft, 0.15 lb/mmBtu; process heaters burning other liquid fuels greater than 50 mmBtu/hr, natural draft, 0.05 lb/mmBtu; and process heaters burning other liquid fuels greater than 50 mmBtu/hr, mechanical draft, 0.08 lb/mmBtu.

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

Subsection (a) is being amended to limit its applicability until May 1, 2025. A new subsection (b) is being added to specify that on and after May 1, 2025, the owner or operator of a process heater subject to the combustion tuning requirements of Section 217.184 shall 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.

**Subpart G: Glass Melting Furnaces**

**Section 217.200**      **Applicability Exemptions**

This Section is amended by renaming the heading, deleting the current applicability provision, and adding that before May 1, 2025, the provisions of this Subpart do not apply to a glass melting furnace operating under a federally enforceable limit of NO<sub>x</sub> emissions from such furnace to less than 15 tons per year and less than five tons per ozone season.

**Section 217.202**      **Exemptions**

This Section is being repealed because its provisions are now set forth in Section 217.200.

**Section 217.204**      **Emissions Limitations**

Subsection (a) is being amended to provide that its current provisions requiring that compliance be demonstrated with the applicable emissions limitation on an ozone season and annual basis apply until May 1, 2025, and that on and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.

In addition, beginning May 1, 2025, the NO<sub>x</sub> emissions limitations for glass melting furnaces are being added as follows: For glass melting furnaces producing container glass, 4.0 lb/ton glass produced; glass melting furnaces producing flat glass, 7.0 lb/ton glass produced; and glass melting furnaces producing other glass, 4.0 lb/ton glass produced.

Subsection (b) is amended to limit its applicability before May 1, 2025.

**Subpart H: Cement and Lime Kilns**

**Section 217.220**      **Applicability Exemptions**

This Section is amended by renaming the heading, deleting the current applicability provisions under subsections (a) and (b), and adding that 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<sub>x</sub> emissions from such kiln to less than 15 tons per year and less than five tons per ozone season.

**Section 217.222**      **Exemptions**

This Section is being repealed because its provisions are now set forth in Section 217.220.

**Section 217.224**      **Emissions Limitations**

Subsections (a) and (b) are being amended to provide that the current provisions requiring that compliance be demonstrated with the applicable emissions limitation on an ozone season and annual basis apply until May 1, 2025, and that on and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.

In addition, beginning May 1, 2025, under subsection (a), the NO<sub>x</sub> emissions limitations for cement kilns are being added as follows: For long dry kilns, 3.0 lb/ton clinker produced; short dry kilns, 2.3 lb/ton clinker produced; preheater kilns, 3.8 lb/ton clinker produced; and preheater/precalciner kilns, 2.8 lb/ton clinker produced.

**Subpart I: Iron and Steel and Aluminum Manufacturing**

**Section 217.240**      **Applicability Exemptions**

This Section is amended by renaming the heading, deleting the current applicability provisions under subsections (a) and (b), and adding that before May 1, 2025, the provisions of this Subpart do not apply to an iron and steel reheat furnace, annealing furnace, or galvanizing furnace, or aluminum reverberatory furnace or crucible furnace operating under a

federally enforceable limit of NO<sub>x</sub> emissions from such furnace to less than 15 tons per year and less than five tons per ozone season.

**Section 217.242**      **Exemptions**

This Section is being repealed because its provisions are now set forth in Section 217.240.

**Section 217.244**      **Emissions Limitations**

Subsections (a) and (b) are being amended to provide that the current provisions requiring that compliance be demonstrated with the applicable emissions limitation on an ozone season and annual basis apply until May 1, 2025, and that on and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.

In addition, beginning May 1, 2025, the NO<sub>x</sub> emissions limitations for iron and steel reheat furnaces, annealing furnaces and galvanizing furnaces are being added as follows: For reheat furnaces, cold-air, 0.03 lb/mmBtu; reheat furnaces, regenerative and recuperative, 0.09 lb/mmBtu; annealing furnaces, cold air, 0.07 lb/mmBtu; annealing furnaces, regenerative and recuperative, 0.08 lb/mmBtu; galvanizing furnaces, cold-air, 0.06 lb/mmBtu; and galvanizing furnaces, regenerative and recuperative, 0.08 lb/mmBtu.

**Subpart M: Electrical Generating Units**

**Section 217.340**      **Applicability Exemptions**

This Section is amended by renaming the heading and adding subsection (b) that provides 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<sub>x</sub> emissions from such furnace to less than 15 tons per year and less than five tons per ozone season.



**Section 217.342**      **Exemptions**

This Section is being repealed because subsection (a) is now set forth in Section 217.340, and subsections (b) and (c) are being deleted because there are no longer any coal-fired or fossil fuel-fired stationary boilers complying through the multi-pollutant standard or the combined pollutant standard located at a source in either one of the NAAs.

**Section 217.344**      **Emissions Limitations**

This Section is being amended to provide that its current provisions requiring that compliance be demonstrated with the applicable emissions limitation on an ozone season and annual basis apply until May 1, 2025, and that on and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.

**Subpart Q: Stationary Reciprocating Internal Combustion Engines and Turbines**

**Section 217.386**      **Applicability**

Subsection (a) is amended to include the applicability criteria before May 1, 2025. A new subsection (a-5) is added that sets forth the applicability criteria on and after May 1, 2025, which states that Subpart Q shall apply to all: (1) Stationary reciprocating internal combustion engines listed in Appendix G of this Part; and (2) Stationary reciprocating internal combustion engines or turbines located at a source that emits or has the potential to emit NO<sub>x</sub> in an amount equal to or greater than 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.

Subsection (b) is being amended to include the provisions of new subsection (a-5)(2) in the introductory phrase. In addition, subsection (b) is being amended to set forth affected units that are not subject to the requirements of this Subpart if the engine or turbine “is” used, instead of “is or has been” used, in certain capacities, such as emergency or standby, research or performance verification, landfill gas control, agricultural purposes, and portable units. Subsection (b)(1) is also being amended to provide that notwithstanding subsections (a)(2) and (a-5)(2) of this Section, an engine or turbine used as an emergency or standby unit as defined by 35 Ill. Adm. Code 211.1920 is not subject to the requirements of Subpart Q; however, the owner or operator of such unit must comply with the recordkeeping requirement under Section 217.396(a)(12), which requires that 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 must be maintained.

Subsection (c) is also being revised to reflect that a unit that is no longer used for an exempt purpose is subject to the control requirements of Subpart Q, and subsection (d) is being amended to include the applicability criteria under new subsection (a-5).

Subsection (e) is being deleted because the provision refers to an application for a construction permit submitted to the Agency prior to the adoption of Subpart D and that date was August 31, 2009. This subsection currently has no practical effect and is therefore being removed.

**Section 217.388**      **Control and Maintenance Requirements**

Subsections (a)(1)(D), (E), and (F) are being amended to provide that beginning May 1, 2025, the NO<sub>x</sub> emissions limitations for affected units are being amended as follows: For diesel engines that are constructed on and after May 1, 2025, from 660 parts per million by volume (“ppmv”) to 210 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis); gaseous fuel-fired turbines, from 42 ppmv to 25 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis); and liquid fuel-fired turbines, from 96 ppmv to 65 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis).

Subsections (a)(3)(A) and (b)(1) are being amended to limit applicability to before May 1, 2025.

**Section 217.390**      **Emissions Averaging Plans**

Subsection (a) is being amended by clarifying the types of units that may comply with Subpart Q through an emissions averaging plan under subsection (a)(1)(A)(ii) and requiring that the current provisions apply before May 1, 2025, and on and after May 1, 2025, units must be located at a single source or at multiple sources all located in either the Chicago area counties or the Metro East area counties to address compliance for units identified in Section 217.386(a-5)(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. Subsection (b) is also being amended to limit its applicability until May 1, 2025. A new subsection (b-5) is being added to provide that 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<sub>x</sub> emissions concentration

under Section 217.388(a)(1) for each affected unit; (3) A sample calculation demonstrating compliance using the methodology provided in subsection (g-5) on a 30-day rolling average basis; and (4) The date the owner will begin using the emissions averaging plan. Therefore, if an owner or operator intends on using an emissions averaging plan on May 1, 2025, such owner or operator must submit the emissions averaging plan to the Agency at least 30 days before May 1, 2025.

Subsection (c) is amended by removing certain provisions related to amended emissions averaging plans. Subsections (e), (f), and (g) are also being amended to limit their applicability until May 1, 2025, in addition to test method citations being updated in subsection (g)(2).

A new subsection (e-5) is also being added to provide that 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 pursuant to subsection (b-5), (c), or (d); the higher of the monitoring or test data determined pursuant to Section 217.394; and the actual hours of operation for the applicable averaging plan period; and (2) Submit to the Agency by January 31 following each calendar year, a compliance report containing the information required by Section 217.396(c)(4-5).

In addition, new subsection (g-5) is being added to provide that on and after May 1, 2025, the total mass of actual NO<sub>x</sub> emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO<sub>x</sub> emissions for those units on a 30-day rolling average basis. This new subsection also includes the equations

addressing the 10 percent environmental write-off on calculated allowable emissions to generate an environment benefit and to determine compliance.

Moreover, subsection (g-10) is also added to provide that on and after May 1, 2025, for each unit in the averaging plan, and each fuel used by a unit, the actual and allowable NO<sub>x</sub> emissions must be determined using the equations set forth under new subsection (g-10), except as provided for in subsection (h).

Subsection (h) is also amended to limit its applicability until May 1, 2025, and add a new provision that states that on and after May 1, 2025, for units that use CEMS, the data must show that the total mass of actual NO<sub>x</sub> emissions determined pursuant to subsection (h)(1) is less than or equal to the total mass of allowable NO<sub>x</sub> emissions calculated in accordance with the equations in subsections (g-5) and (h)(2) for each 30-day rolling average period; the equations in subsection (g-10) will not apply.

**Section 217.392**      **Compliance and 30-Day Rolling Average Basis**

This Section is amended by renaming the heading and adding a new subsection (b-5) that provides that on and after May 1, 2025, an owner or operator of a stationary internal combustion engine or turbine subject to Subpart Q shall not operate such affected engine or turbine unless the requirements of Subpart Q are met. Compliance shall 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 such period and the total volume of products of combustion in such period.

Subsection (c), which relates to NO<sub>x</sub> allowances, is amended by limiting its applicability to before May 1, 2025.

**Section 217.394**      **Testing and Monitoring**

Subsection (a) is amended to limit its applicability until May 1, 2025. In addition, a new subsection (a-5) is being added that provides that 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 such engine or turbine operates as a low usage unit under Section 217.388(a)(3)(B).

Subsection (a-5) also provides that an owner or operator must conduct an initial performance test pursuant to subsection (c)(1) or (c)(2) of this Section. In addition, performance testing of NO<sub>x</sub> 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.

Subsection (b)(1) is being amended to provide that 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.

In addition, subsections (c)(1) and (d)(1) are being amended to update measurement method citations. The introductory phrases of subsections (d) and (e) are also being amended to include the provisions of new subsection (a-5)(2).

Subsection (e) is also being amended to provide that until May 1, 2025, if operating a CEMS, 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, and 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. Subsection (f) is being amended by deleting reference to low usage units using NO<sub>x</sub> allowances to comply with the requirements of Subpart Q pursuant to Section 217.392(c), which will no longer apply on and after May 1, 2025.

**Section 217.396**      **Recordkeeping and Reporting**

Subsection (a) is amended to require that the owner or operator of any unit included in an emissions averaging plan or an affected unit that is not exempt and is not subject to the low usage exemption must maintain records that demonstrate compliance with the requirements of Subpart Q as follows: Subsection (a)(3) is amended requiring, before May 1, 2025, the number of hours the unit operated on a monthly basis and during each ozone season, and on and after May 1, 2025, daily operating hours; Subsection (a)(4-5) is being added requiring on and after May 1, 2025, total mass emissions on a daily basis and on a 30-day rolling average basis; Subsection (a)(9) is amended by limiting its applicability to before May 1, 2025; and Subsection (a)(12) is being added requiring, 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.

Subsection (c)(4) is being amended to provide for its applicability until May 1, 2025, and subsection (c)(4-5) is being added to provide that on and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by January 31 following the

previous calendar year, the owner or operator must submit to the Agency a report that includes the following: (A) For all units that are part of the emissions averaging plan, the total mass of allowable NO<sub>x</sub> emissions on a 30-day rolling average basis; (B) The total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis for each unit included in the averaging plan; (C) The calculations that demonstrate that the total mass of actual NO<sub>x</sub> emissions is less than the total mass of allowable NO<sub>x</sub> emissions using equations in Sections 217.390(g-5) and (g-10); and (D) The daily information required to determine the total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis. Accordingly, an owner or operator demonstrating compliance through an emissions averaging plan must submit a report to the Agency by January 31, 2026, for calendar year 2025.

Subsection (c-5) is added to provide that, beginning May 1, 2025, the owner or operator of an emission unit subject to Subpart Q must submit an annual compliance certification report, including its contents, 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). In addition, subsections (d)(1) and (d)(3) are being amended to limit their applicability to before May 1, 2025, and subsection (e) is being amended to revise the reference to subsection (c)(4-5) and correct the incorporation by reference section.

## **IX. CONCLUSION**

For the reasons stated above, the Illinois EPA hereby submits this regulatory proposal and requests the Board to adopt these rules for the State of Illinois.



Respectfully submitted,

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY

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

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1021 N. Grand Ave. East  
P.O. Box 19276  
Springfield, IL 62794-9276  
(217) 782-5544

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

PART 217  
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Authority: Implementing Sections 9.9 and 10 and authorized by Sections 27 and 28.5 of the Environmental Protection Act [415 ILCS 5/9.9, 10, 27 and 28.5 (2004)].

Source: Adopted as Chapter 2: Air Pollution, Rule 207: Nitrogen Oxides Emissions, R71-23, 4 PCB 191, April 13, 1972, filed and effective April 14, 1972; amended at 2 Ill. Reg. 17, p. 101, effective April 13, 1978; codified at 7 Ill. Reg. 13609; amended in R01-9 at 25 Ill. Reg. 128, effective December 26, 2000; amended in R01-11 at 25 Ill. Reg. 4597, effective March 15, 2001; amended in R01-16 and R01-17 at 25 Ill. Reg. 5914, effective April 17, 2001; amended in R07-18 at 31 Ill. Reg. 14254, effective September 25, 2007; amended in R07-19 at 33 Ill. Reg. 11999, effective August 6, 2009; amended in R08-19 at 33 Ill. Reg. 13345, effective August 31, 2009; amended in R09-20 at 33 Ill. Reg. 15754, effective November 2, 2009; amended in R11-17 at 35

Ill. Reg. 7391, effective April 22, 2011; amended in R11-24 at 35 Ill. Reg. 14627, effective August 22, 2011; amended in R11-08 at 35 Ill. Reg. 16600, effective September 27, 2011; amended in R09-19 at 35 Ill. Reg. 18801, effective October 25, 2011; amended in R15-21 at 39 Ill. Reg. 16213, effective December 7, 2015; amended in R\_\_-\_\_ at \_\_ 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;
- 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<sub>x</sub> pursuant to 40 CFR 60.4400, as incorporated by reference in Section 217.104.

(Source: Amended at \_\_ 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 <sub>x</sub> Allowance Tracking System
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
O <sub>2</sub>	oxygen
psia	pounds per square inch absolute
peoc	potential electrical output capacity
PTE	potential to emit
ppm	parts per million
ppmv	parts per million by volume
<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 \_\_ 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<sub>x</sub> Emissions from Cement Manufacturing, EPA-453/R94-004, U.S. Environmental Protection Agency-Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, March 1994;
- 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;
- g) ~~40 CFR 60.13 (2001);~~
- h) ~~40 CFR 60, Appendix A, Methods 3A, 7, 7A, 7C, 7D, 7E, 19, and 20 (2000);~~
- fi) ASTM D6522-~~2000~~, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers (20202000);
- j) ~~Standards of Performance for Stationary Combustion Turbines, 40 CFR 60, Subpart KKKK, 60.4400 (2006);~~
- gk) Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources (20242000), USEPA;
- l) ~~40 CFR 60, Appendix A, Methods 1, 2, 3, and 4 (2008);~~
- hm) Alternative Control Techniques Document – NO<sub>x</sub> Emissions from Industrial/Commercial/Institutional (ICI) Boilers, EPA-453/R-94-022, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, March 1994;
- ih) Alternative Control Techniques Document – NO<sub>x</sub> Emissions from Process Heaters (Revised), EPA-453/R-93-034, U.S. Environmental Protection Agency,

Office of Air and Radiation, Office of Air Quality Planning and Standards,  
Research Triangle Park, N.C. 27711, September 1993;

- j) Alternative Control Techniques Document – NO<sub>x</sub> Emissions from Glass Manufacturing, EPA-453/R-94-037, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, June 1994;
- k) Alternative Control Techniques Document – NO<sub>x</sub> Emissions from Iron and Steel Mills, EPA-453/R-94-065, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, September 1994;
- l) 40 CFR 60 and 75 (~~2024~~2008); and
- r) ~~40 CFR 60, Appendix B, Performance Specification 16 (2022); and, 74 FR 12575 (March 25, 2009).~~
- m) 40 CFR 63.7540 (2024).

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

#### SUBPART D: NO<sub>x</sub> 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<sub>x</sub> 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 such sources described in subsection (a)(1)(A) of this Section that emits NO<sub>x</sub> in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season.
- 2) On and after May 1, 2025, except as otherwise provided in Subpart E or M, the provisions of this Subpart and Subparts E, F, G, H, I, and M of this Part apply to the owner or operator of any industrial boiler, process heater, glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, aluminum reverberatory or crucible furnace, or fossil fuel-fired stationary boiler that meets both of the following criteria:
  - 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<sub>x</sub> 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<sub>x</sub> to the atmosphere per calendar year.
- ~~32)~~ For purposes of this Section, "potential to emit" means the quantity of NO<sub>x</sub> 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<sub>x</sub> 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.
- d) ~~Where a construction permit, for which the application was submitted to the Agency prior to the adoption of this Subpart, is issued that relies on decreases in emissions of NO<sub>x</sub> from existing emission units for purposes of netting or emission offsets, such NO<sub>x</sub> decreases remain creditable notwithstanding any requirements that may apply to the existing emission units pursuant to this Subpart and Subpart E, F, G, H, I, or M of this Part.~~
- de) The owner or operator of an emission unit that is subject to this Subpart and Subpart E, F, G, H, I, or M of this Part must operate such unit in a manner consistent with good air pollution control practice to minimize NO<sub>x</sub> emissions.

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

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

- ~~a) Compliance with the requirements of Subparts E, F, G, H, I and M by an owner or operator of an emission unit that is subject to any of those Subparts is required beginning January 1, 2015.~~
- a) On and after May 1, 2025, the owner or operator of an emission unit subject to the requirements of this Subpart and Subpart E, F, G, H, I, or M shall comply with the requirements of the applicable Subparts. Compliance with emissions limitations shall 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 shall 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 such 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 such period and the total amount of glass, clinker, or lime produced in such period.

- a-5) 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 shall comply with the applicable Subparts within 180 days after initial startup of the new or modified emission unit.
- 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 shall be extended until December 31, 2014, if the unit is required to meet emissions limitations for NO<sub>x</sub>, as measured using a continuous emissions monitoring system, and included within a legally enforceable order on or before May 7, 2010, whereby the emissions limitations are less than 30 percent of the emissions limitations set forth under Section 217.204.
- c) 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, provided that the emissions limitations of 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.

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

#### **Section 217.154 Initial Performance Testing**

- a) Performance testing of NO<sub>x</sub> 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.

- b) Performance testing of NO<sub>x</sub> 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. ~~Except as provided for under Section 217.157(a)(4) and (e)(1), this~~ 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 such date and five days before 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 \_\_\_ 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 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 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 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.
- 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 \_\_ 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 such 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) Such records must be kept at the source and maintained for at least five years and must be available for immediate inspection and copying by the Agency.
- b) The owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must maintain records that demonstrate compliance with the requirements of those Subparts, as applicable, that include the following:
- 1) Identification, type (e.g., gas-fired), and location of each unit.
  - 2) Calendar date of the record.
  - 3) 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<sub>x</sub> 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<sub>x</sub> that is performed on the unit.
  - ~~10~~9) A log for the NO<sub>x</sub> monitoring device, if present, including periods when not in service and maintenance and inspection activities that are performed on the device.
  - ~~11~~4) Identification of time periods for which operating conditions and pollutant data were not obtained by the CEMS or PEMS~~continuous emissions monitoring system~~, including the reasons for not obtaining sufficient data and a description of corrective actions taken.
  - ~~12~~4) 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.
- 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<sub>x</sub> emissions and five days prior to 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 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 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 such 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 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<sub>x</sub> emissions for the ozone season and for the annual control period;
  - 2) The total mass of actual NO<sub>x</sub> emissions for the ozone season and annual control period for each unit included in the averaging plan;
  - 3) The calculations that demonstrate that the total mass of actual NO<sub>x</sub> emissions are less than the total mass of allowable NO<sub>x</sub> emissions using equations in Section 217.158(f); and
  - 4) The information required to determine the total mass of actual NO<sub>x</sub> emissions.
- i-5) On and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by March 1 following the previous calendar year, the owner or operator must submit to the Agency a report that includes the following:
  - 1) For all units that are part of the emissions averaging plan, the total mass of allowable NO<sub>x</sub> emissions on a 30-day rolling average basis.
  - 2) The total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis for each unit included in the averaging plan.
  - 3) The calculations that demonstrate that the total mass of actual NO<sub>x</sub> emissions is less than the total mass of allowable NO<sub>x</sub> emissions using equations in Section 217.158(f-5).
  - 4) The daily information required to determine the total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis.
- j) 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<sub>x</sub> was not in operation, other than for purposes of calibrating or performing quality assurance or quality control activities for the monitoring equipment; and
  - 2) An excess emissions and monitoring systems performance report in accordance with the requirements of 40 CFR 60.7(c) and (d) and 60.13, or 40 CFR 75, or an alternate procedure approved by the Agency and USEPA.
- k) Until May 1, 2025, theThe owner or operator of an emission unit subject to Subpart M of this Part must comply with the compliance certification and recordkeeping and reporting requirements in accordance with 40 CFR 96, or an alternate procedure approved by the Agency and USEPA. On and after May 1, 2025, the owner or operator of an emission unit subject to Subpart M of this Part must comply with the compliance certification and recordkeeping and reporting requirements in accordance with 40 CFR 75, or an alternate procedure approved by the Agency and USEPA.
- l) 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 shall 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 \_\_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **Section 217.157 Testing and Monitoring**

- a) Industrial Boilers and Process Heaters
  - 1) The owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 250 mmBtu/hr must install, calibrate, maintain, and operate a ~~CEMS~~continuous emissions monitoring system on the emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with 40 CFR 75, as incorporated by reference in Section 217.104. However, the owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 250 mmBtu/hr that combusts blast furnace gas with up to 10% natural gas on an annual basis and located at a source that manufactures iron and steel is not required to install, calibrate, maintain, and operate a ~~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<sub>x</sub> emissions from the industrial boiler are less than 70% of the applicable emissions limitation under Section 217.164. 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 such emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.
- 3) The owner or operator of a process heater subject to Subpart F of this Part with a rated heat input capacity greater than 100 mmBtu/hr must install, calibrate, maintain, and operate a ~~CEMS~~continuous emissions monitoring system on the emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.
- 3-5) 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)(7)(A) of this Section and Section 217.154, and subsequent performance tests conducted in accordance with subsection (a)(7) of this Section.
- 4) 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)(7)(A) of this Section and Section 217.154, and subsequent performance tests conducted in accordance with subsection (a)(7) 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, in appendix A-1, A-2, A-3, A-4, or A-7, respectively, as incorporated by reference in Section 217.104, or other alternative USEPA methods approved by the Agency. Each performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO<sub>x</sub> emissions must be measured while the industrial boiler is operating at maximum operating capacity or while the process heater is operating at normal maximum load. If the industrial boiler or process heater has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. If a combination of fuels is typically used, a performance test may be conducted, with Agency approval, on such combination of fuels typically used. Except as provided under subsection (e) of this Section, this subsection (a)(4)(B) does not apply if such owner or operator is demonstrating compliance with an emissions limitation through a continuous emissions monitoring system under subsection (a)(1), (a)(2), (a)(3), or (a)(5) of this Section.~~

- 5) ~~Instead of complying with the requirements of subsection (a)(3-5) or (a)(4) 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 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.~~
- 6) 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 such boiler for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere, but must conduct initial and subsequent~~comply with the performance tests~~test in accordance with requirements under subsection (a)(7) of this Section.

7) 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)(7)(A). All performance tests required by subsection (a) subsequent to an initial performance test must also meet the requirements in subsection (a)(7)(B):

A) The performance test must be conducted using 40 CFR 60, subpart A and appendix A, Method 1, 2, 3, 4, 7E, or 19, in appendix A-1, A-2, A-3, A-4, or A-7, respectively, as incorporated by reference in Section 217.104, or other alternative USEPA methods approved by the Agency. Each performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO<sub>x</sub> emissions must be measured while the industrial boiler or process heater is operating at maximum operating capacity or while it is operating at normal maximum load. If the industrial boiler or process heater has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. If a combination of fuels is typically used, a performance test may be conducted, with Agency approval, on such 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 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) 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<sub>x</sub> 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 such emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.
- 2) An owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit NO<sub>x</sub> in an amount less than one ton per day must have an initial performance test conducted pursuant to subsection (b)(4) of this Section and Section 217.154.
- 3) An owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit NO<sub>x</sub> 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~~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 steel reheat, annealing, or galvanizing furnace, or aluminum~~

~~reverberatory or crucible furnace~~ 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.

- 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, ~~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<sub>x</sub> emissions must be measured while the glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace is operating at maximum ~~operating~~ capacity. If the glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. Except as provided under subsection (e) of this Section, this subsection (b)(4) does not apply if 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<sub>x</sub> in an amount less than one ton per day may install and operate a CEMS~~continuous emissions monitoring system~~ on 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 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 such emission unit for the measurement of NO<sub>x</sub> 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 such emission unit for the measurement of NO<sub>x</sub> emissions discharged into the atmosphere in accordance with 40 CFR 75.
- d) Common Stacks. If two or more emission units subject to Subpart E, F, G, H, I, M, or Q of this Part are served by a common stack and the owner or operator of such emission units is operating a ~~CEMS~~continuous emissions monitoring system, the owner or operator may, with written approval from the Agency, utilize a single ~~CEMS~~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 such emission units are subject to an emissions averaging plan under this Part.
- e) Compliance with the ~~continuous emissions monitoring system (CEMS)~~ requirements by an owner or operator of an emission unit who is required to install, calibrate, maintain, and operate a CEMS on the emission unit under subsection (a)(1), (a)(2), (a)(3), or (b)(1) of this Section, or who has elected to comply with the CEMS requirements under subsection (a)(5) 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<sub>x</sub> emissions discharged into the atmosphere in accordance with the requirements of 40 CFR 60, subpart A and appendix B, Performance Specification 16. The PEMS must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan

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

(Source: Amended at \_\_ 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. 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, 2002.
- B) Before May 1, 2025, units~~Units~~ that the owner or operator may claim as exempt 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 such a unit is included in an emissions averaging plan, it will be treated as an affected unit and subject to the applicable emissions limitations, ~~and~~ testing, monitoring, recordkeeping and reporting requirements.
- B-5) On and after May 1, 2025, units that are not otherwise subject to Subpart E, F, G, H, I, or M, as applicable, under Section 217.150(a)(2)(B), but that the owner or operator chooses to include in an emissions averaging plan. For as long as such 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.
- C) Units that commence operation after January 1, 2002, if the unit replaces a unit that commenced operation on or before January 1, 2002, or it replaces a unit that replaced a unit that commenced operation on or before January 1, 2002. The new unit must be used for the same purpose and have substantially equivalent or less

process capacity or be permitted for less NO<sub>x</sub> emissions on an annual basis than the actual NO<sub>x</sub> emissions of the unit or units that are replaced. Within 90 days after permanently shutting down a unit that is replaced, the owner or operator of such unit must submit a written request to withdraw or amend the applicable permit to reflect that the unit is no longer in service before the replacement unit may be included in an emissions averaging plan.

- 2) The following types of units may not be included in an emissions averaging plan:
  - A) Units that commence operation after January 1, 2002, except as provided by subsection (a)(1)(C) of this Section.
  - B) Before May 1, 2025, unitsUnits that the owner or operator is claiming are exempt 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<sub>x</sub> as provided for in an enforceable order, unless the order allows for emissions averaging. In the case of petroleum refineries, this subsection (a)(2)(C) does not prohibit including industrial boilers or process heaters, or both, in an emissions averaging plan when an enforceable order does not prohibit the reductions made under the order from also being used for compliance with any rules or regulations designed to address regional haze or the non-attainment status of any area.
- b) 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 (f) of this Section for the ozone season (May 1 through September 30) and calendar year (January 1 through December 31).
- b-5) 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 (f-5) of this Section on a 30-day rolling average basis.
  - 4) The date the owner or operator will begin using the emissions averaging plan.
- c) 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.~~
- d) Notwithstanding subsection (c) 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 after 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 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 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 such unit within 30 days after the unit becomes subject to the applicable Subpart.

- 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 pursuant to subsection (b) of this Section, the monitoring data or test data determined 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 pursuant to subsection (b-5) of this Section, the monitoring data or test data determined pursuant to Section 217.157, and the actual hours of operation for the applicable averaging plan period.
  - 32) Until May 1, 2025, submit~~Submit~~ to the Agency, by March 1 following the previous 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 March 1 following each calendar year, a compliance report containing the information required by Section 217.156(i-5).
- f) Until May 1, 2025, the~~The~~ total mass of actual NO<sub>x</sub> emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO<sub>x</sub> emissions for those units for both the ozone season and calendar year. The following equation must be used to determine compliance:

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

Where:

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

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

- $N_{act}$  = Total sum of the actual NO<sub>x</sub> mass emissions from units included in the averaging plan for each fuel used (tons per ozone season and year).
- $N_{all}$  = Total sum of the allowable NO<sub>x</sub> mass emissions from units included in the averaging plan for each fuel used (tons per ozone season and year).
- $EM_{act(i)}$  = Total mass of actual NO<sub>x</sub> emissions in tons for a unit as determined in subsection (f)(1) of this Section.
- $i$  = 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<sub>x</sub> emissions in tons for a unit as determined in subsection (f)(2) of this Section.

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

- 1) Actual emissions must be determined as follows:

When emission limits are prescribed in lb/mmBtu,

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

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

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

- 2) Allowable emissions must be determined as follows:

When emission limits are prescribed in lb/mmBtu,

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

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



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

Where:

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

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

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

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

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

P = weight in tons of processed product.

f-5) On and after May 1, 2025, the total mass of actual NO<sub>x</sub> emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO<sub>x</sub> emissions for those units on a 30-day rolling average basis. The following equation must be used to determine compliance:

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

Where:

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

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).

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

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 (f-5)(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 (f-5)(2) of this Section.

For each unit in the averaging plan, and each fuel used by such 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,

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

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

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

2) Allowable emissions must be determined as follows:

When emissions limitations are prescribed in lb/mmBtu,

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

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

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

Where:

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

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

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

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

alternative method approved by the Agency, will be used.

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

P       ≡ weight in tons of processed product.

- g) 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.
- h) Until May 1, 2025, theThe owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when an emission unit included in the emissions averaging plan is shut down for a maintenance turnaround, provided that such owner or operator notify the Agency in writing at least 30 days in advance of the shutdown of the emission unit for the maintenance turnaround and the shutdown of the emission unit does not exceed 45 days per ozone season or calendar year and NO<sub>x</sub> pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround.
- i) Until May 1, 2025, theThe owner or operator of an emission unit that combusts a combination of coke oven gas and other gaseous fuels and that is located at a source that manufactures iron and steel who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when the coke oven gas desulfurization unit included in the emissions averaging plan is shut down for maintenance, provided that 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 such shutdown does not exceed 35 days per ozone season or calendar year and NO<sub>x</sub> pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance period.

- j) ~~Until May 1, 2025, the~~The owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when NO<sub>x</sub> pollution control equipment that controls one or more emission units included in the emissions averaging plan is shut down for a maintenance turnaround, provided that:
- 1) the owner or operator notify the Agency in writing, at least 30 days in advance of the shutdown, of the NO<sub>x</sub> pollution control equipment for the maintenance turnaround;
  - 2) the shutdown of the NO<sub>x</sub> pollution control equipment does not exceed 45 days per ozone season or calendar year; and
  - 3) except for those emission units vented to the NO<sub>x</sub> pollution control equipment undergoing the maintenance turnaround, NO<sub>x</sub> pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround.

(Source: Amended at \_\_ 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.~~
- ab) 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 such boilers meet the applicability criteria under Subpart M of this Part.
- be) The provisions of this Subpart do not apply to fluidized catalytic cracking units, their regenerator and associated CO boiler or boilers and CO furnace or furnaces where present, if such units are located at a petroleum refinery and such units are required to meet emission limits or control requirements for NO<sub>x</sub> 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<sub>x</sub> emissions from such boiler to less than 15 tons per year and less than five tons per ozone season.

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

**Section 217.162 Exemptions (Repealed)**

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

(Source: Repealed at \_\_ 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<sub>x</sub> 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 <sub>x</sub> Emissions Limitation (lb/mmBtu) or Requirement <u>Before May 1, 2025</u>
Natural Gas or Other Gaseous Fuels	Industrial boiler greater than 100	0.08
	Industrial boiler less than or equal to 100	Combustion tuning
Distillate Fuel Oil	Industrial boiler greater than 100	0.10
	Industrial boiler less than or equal to 100	Combustion tuning

Other Liquid Fuels	Industrial boiler greater than 100	0.15
	Industrial boiler less than or equal to 100	Combustion tuning
Solid Fuel	Industrial boiler greater than 100, circulating fluidized bed combustor	0.12
	Industrial boiler greater than 250	0.18
	Industrial boiler greater than 100 but less than or equal to 250	0.25
	Industrial boiler less than or equal to 100	Combustion tuning
		<u>NO<sub>x</sub> Emissions</u>
	<u>Emission Unit Type and</u>	<u>Limitations (lb/mmBtu)</u>
	<u>Rated Heat Input Capacity</u>	<u>or Requirement</u>
<u>Fuel</u>	<u>(mmBtu/hr)</u>	<u>On and after May 1, 2025</u>
<u>Natural Gas or Other</u>	<u>Industrial boiler greater than</u>	<u>0.08</u>
<u>Gaseous Fuels</u>	<u>50</u>	
	<u>Industrial boiler less than or</u>	<u>Combustion tuning</u>
	<u>equal to 50</u>	
<u>Distillate Fuel Oil</u>	<u>Industrial boiler greater than</u>	<u>0.10</u>
	<u>50</u>	
	<u>Industrial boiler less than or</u>	<u>Combustion tuning</u>
	<u>equal to 50</u>	
<u>Other Liquid Fuels</u>	<u>Industrial boiler greater than</u>	<u>0.15</u>
	<u>50</u>	

	<u>Industrial boiler less than or equal to 50</u>	<u>Combustion tuning</u>
<u>Solid Fuel</u>	<u>Industrial boiler greater than 50, circulating fluidized bed combustor</u>	<u>0.10</u>
	<u>Industrial boiler greater than 250</u>	<u>0.15</u>
	<u>Industrial boiler greater than 50 but less than or equal to 250</u>	<u>0.20</u>
	<u>Industrial boiler less than or equal to 50</u>	<u>Combustion tuning</u>

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

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

Where:

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

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

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

$$Btu_{COG} = \text{the heat input of coke oven gas in Btu over that period}$$

$$NO_{x_{BFG}} = 0.0288 \text{ lb/mmBtu for blast furnace gas}$$

$$Btu_{BFG} = \text{the heat input of blast furnace gas in Btu over that period}$$

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



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

- a) Until May 1, 2025, the The owner or operator of an industrial boiler subject to the combustion tuning requirements of Section 217.164 must have combustion tuning performed on the boiler at least annually. The combustion tuning must be performed by an employee of the owner or operator or a contractor who has successfully completed a training course on the combustion tuning of boilers firing the fuel or fuels that are fired in the boiler. The owner or operator must maintain the following records that must be made available to the Agency upon request:
- 1a) The date the combustion tuning was performed;
  - 2b) The name, title, and affiliation of the person who performed the combustion tuning;
  - 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 \_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

### **SUBPART F: PROCESS HEATERS**

#### **Section 217.180 Applicability Exemptions**

Before May 1, 2025, the provisions of this Subpart do not apply to a process heater operating under a federally enforceable limit of NO<sub>x</sub> emissions from such 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 \_\_ 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<sub>x</sub> emissions from such heater to less than 15 tons per year and less than five tons per ozone season.~~

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

**Section 217.184 Emissions Limitations**

Except as provided for under Section 217.152, on or after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any process heater to exceed the following limitations. 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 <sub>x</sub> 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
	Process heater greater than 100, mechanical draft	0.15
	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<sub>x</sub> Emissions Limitation (lb/mmBtu) or Requirement</u> <u>On and after May 1, 2025</u>
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>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>
	<u>Process heater less than or equal to 50</u>	<u>Combustion tuning</u>

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

#### SUBPART G: GLASS MELTING FURNACES

##### **Section 217.200 Applicability Exemptions**

Before May 1, 2025, the provisions of this Subpart do not apply to a glass melting furnace operating under a federally enforceable limit of NO<sub>x</sub> emissions from such 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 \_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 217.202 Exemptions (Repealed)**

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

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

**Section 217.204 Emissions Limitations**

- a) On and after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any glass melting furnace to exceed the following limitations. 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.

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

<u>Product</u>	<u>Emission Unit Type</u>	<u>NO<sub>x</sub> Emissions Limitation (lb/ton glass produced) On and after May 1, 2025</u>
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<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) 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 \_\_ 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<sub>x</sub> emissions from such kiln to less than 15 tons per year and less than five tons per ozone season.

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

(Source: Amended at \_\_ 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<sub>x</sub> emissions from such kiln to less than 15 tons per year and less than five tons per ozone season.~~

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

**Section 217.224 Emissions Limitations**

- a) On and after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any 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.

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

<u>Emission Unit Type</u>	<u>NO<sub>x</sub> Emissions Limitation (lb/ton clinker produced) On and after May 1, 2025</u>
<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<sub>x</sub> into the atmosphere from any lime kiln to exceed the following limitations. Until May 1, 2025, compliance ~~Compliance~~ must be demonstrated with the applicable emissions limitation on an ozone season and annual basis. On and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.

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

(Source: Amended at \_\_ 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<sub>x</sub> emissions from such furnace to less than 15 tons per year and less than five tons per ozone season.

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

(Source: Amended at \_\_ 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<sub>x</sub> emissions from such furnace to less than 15 tons per year and less than five tons per ozone season.~~

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

### **Section 217.244 Emissions Limitations**



- a) On and after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any reheat furnace, annealing furnace, or galvanizing furnace used in iron and steel making to exceed the following limitations. 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<sub>x</sub> Emissions Limitation (lb/mmBtu) 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
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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> Emissions Limitation (lb/mmBtu)</u>
Reverberatory furnace	0.08
Crucible furnace	0.16

(Source: Amended at \_\_ 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 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<sub>x</sub> emissions from such boiler to less than 15 tons per year and less than five tons per ozone season.

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

**Section 217.342 Exemptions (Repealed)**

- a) ~~Notwithstanding Section 217.340, the provisions of this Subpart do not apply to a fossil fuel fired stationary boiler operating under a federally enforceable limit of NO<sub>x</sub> emissions from such boiler to less than 15 tons per year and less than five tons per ozone season.~~
- b) ~~Notwithstanding Section 217.340, the provisions of this Subpart do not apply to a coal fired stationary boiler that commenced operation before January 1, 2008, that is complying with 35 Ill. Adm. Code 225.Subpart B through the multi pollutant standard.~~
- e) ~~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 \_\_ Ill. Reg. \_\_\_\_\_, effective \_\_\_\_\_)

**Section 217.344 Emissions Limitations**

On and after January 1, 2015, no person shall cause or allow emissions of NO<sub>x</sub> into the atmosphere from any fossil fuel-fired stationary boiler to exceed the following limitations. 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 <sub>x</sub> 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 \_\_ 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<sub>x</sub> in an amount equal to or greater than 100 tons per year and is in either the area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County, or in the area composed of the Metro-East counties of Jersey, Madison, Monroe, and St. Clair, and the Township of Baldwin in Randolph County, where:
    - A) The engine at nameplate capacity is rated at equal to or greater than 500 bhp output; or
    - B) The turbine is rated at equal to or greater than 3.5 MW (4,694 bhp) output at 14.7 psia, 59°F and 60 percent relative humidity.
- a-5) On and after May 1, 2025, 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<sub>x</sub> 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.
- b) Notwithstanding ~~subsections~~ subsection (a)(2) and (a-5)(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 such unit must comply with the recordkeeping requirement under Section 217.396(a)(12);
  - 2) Used for research or for the purposes of performance verification or testing;
  - 3) Used to control emissions from landfills, where at least 50 percent of the heat input is gas collected from a landfill;
  - 4) Used for agricultural purposes, including the raising of crops or livestock that are produced on site, but not for associated businesses like packing operations, sale of equipment or repair; or
  - 5) An engine with nameplate capacity rated at less than 1,500 bhp (1,118 kW) output, mounted on a chassis or skids, designed to be moveable, and moved to a different source at least once every 12 months.
- c) If an exempt unit ceases to fulfill the criteria specified in subsection (b) of this Section, such 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.
- d) 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 (a-5) of this Section or becomes eligible for an exemption pursuant to subsection (b) of this Section.
- e) ~~Where a construction permit, for which the application was submitted to the Agency prior to the adoption of this Subpart, is issued that relies on decreases in emissions of NO<sub>x</sub> from existing emission units for purposes of netting or emissions offsets, such NO<sub>x</sub> decreases shall remain creditable notwithstanding~~

~~any requirements that may apply to the existing emissions units pursuant to this Subpart.~~

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

### **Section 217.388 Control and Maintenance Requirements**

- a) On and after the applicable compliance date in Section 217.392, an owner or operator of an affected unit must inspect and maintain affected units as required by subsection (a)(4) of this Section and comply with one of the following: the applicable emissions concentration as set forth in subsection (a)(1) of this Section, the requirements for an emissions averaging plan as specified in subsection (a)(2) of this Section, or the requirements for operation as a low usage unit as specified in subsection (a)(3) of this Section.
- 1) Limits the discharge from an affected unit into the atmosphere of any gases that contain NO<sub>x</sub> to no more than:
- A) 150 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis) for spark-ignited rich-burn engines;
  - B) 210 ppmv (corrected to 15 percent O<sub>2</sub> 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 O<sub>2</sub> on a dry basis) for existing spark-ignited Worthington engines that are not listed in Appendix G;
  - D) Before May 1, 2025, 660 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis) for diesel engines;  
On and after May 1, 2025, 210 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis) for diesel engines that are constructed on and after May 1, 2025;
  - E) Before May 1, 2025, 42 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis) for gaseous fuel-fired turbines; and  
On and after May 1, 2025, 25 ppmv (corrected to 15 percent O<sub>2</sub> on a dry basis) for gaseous fuel-fired turbines;

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

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

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

this Section. The operation limits of subsections (a)(3)(B)(i) and (a)(3)(B)(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:

- 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 (e), 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) shall mean the date by which compliance with subsection (a)(1) or (a)(2) of this Section is to begin.

- 2) An owner or operator of an affected unit that is changing the method of compliance from subsection (a)(1) or (a)(2) of this Section to subsection (a)(3) of this Section must:
  - A) Continue to operate the affected unit's control device, if that unit relied upon a NO<sub>x</sub> 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), (b), (c), (d) or (e) for the affected unit. If the deadline for such 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(f).

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

### **Section 217.390 Emissions Averaging Plans**

- a) An owner or operator of certain affected units may comply through an emissions averaging plan.
  - 1) A unit or units that commenced operation before January 1, 2002 may be included in only one emissions averaging plan, as follows:
    - A) Units:
      - 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 working control through stock ownership of its subsidiary corporations; or

- ii) ~~Before May 1, 2025, located~~ Before May 1, 2025, 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(a-5)(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 pursuant to Section 217.386(b) but does not claim as exempt. For as long as such unit is included in an emissions averaging plan, it will be treated as an affected unit and subject to the applicable emission concentration, limits, testing, monitoring, recordkeeping and reporting requirements; and
  - D) Units that comply with the requirements for low usage units set forth in Section 217.388(a)(3), so long as the unit or units operate NO<sub>x</sub> emissions control technology. For as long as such unit is included in an emissions averaging plan, it will be subject to the applicable emission concentration limits in subsection (g)(7) of this Section, the applicable testing and monitoring requirements for affected units in Section 217.394(a) through (e), and the applicable recordkeeping and reporting requirements for affected and low usage units in Section 217.396(a) through (d).
- 2) The following types of units may not be included in an emissions averaging plan:

- A) Units that commence operation after January 1, 2002, unless the unit or units replace a unit or units described in subsection (a)(1) of this Section that commenced operation on or before January 1, 2002, or the unit or units replace a unit or units described in subsection (a)(1) of this Section that replaced a unit or units described in subsection (a)(1) of this Section that commenced operation on or before January 1, 2002. The new unit must be used for the same purpose and have substantially equivalent or less process capacity or be permitted for less NO<sub>x</sub> emissions on annual basis than the actual NO<sub>x</sub> 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 pursuant to Section 217.386(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 (f) of this Section for both the ozone season and calendar year.
  - 2) The plan will be effective as follows:
    - A) An initial plan for units required to comply by January 1, 2008 is effective January 1, 2008;
    - B) An initial plan for units required to comply by May 1, 2010 is effective May 1, 2010 for those units;

- C) A new plan submitted 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 pursuant to subsection (c) of this Section is effective retroactively to January 1 of the applicable year; or
- E) An amended plan submitted pursuant to subsection (d) of this Section is effective on the date it is received by the Agency.

b-5) 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<sub>x</sub> emissions concentration under Section 217.388(a)(1) for each affected unit.
- 3) A sample calculation demonstrating compliance using the methodology provided in subsection (g-5) of this Section on a 30-day rolling average basis.
- 4) The date the owner or operator will begin using the emissions averaging plan.

c) An owner or operator may amend an emissions averaging plan only once per calendar year. ~~An amended plan must include the information from subsection (b)(1) and may change, but is not limited to changing, the group of affected units or reflecting changes in the operation of the affected units. An amended plan must be submitted to the Agency by May 1 of the applicable calendar year and is effective as set forth in subsection (b)(2) of this Section. If an amended plan is not received by the Agency by May 1 of the applicable calendar year, the previous year's plan will be the applicable emissions averaging plan.~~

d) Notwithstanding subsection (c) 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 pursuant to Section 217.386(b) or as a low usage unit pursuant 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.
- e) 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 pursuant to subsection (b), (c), or (d) of this Section; the higher of the monitoring or test data determined pursuant 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).
- e-5) 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 pursuant to subsection (b-5), (c), or (d) of this Section; the higher of the monitoring or test data determined pursuant to Section 217.394; and the actual hours of operation for the applicable averaging plan period.
  - 2) Submit to the Agency by January 31 following each calendar year, a compliance report containing the information required by Section 217.396(c)(4-5).

- f) ~~Until May 1, 2025, the~~ The total mass of actual NO<sub>x</sub> emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO<sub>x</sub> emissions for those units for both the ozone season and calendar year. The following equation must be used to determine compliance:

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

Where:

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

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

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

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

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

$EM_{act(i)}$  = Total mass of actual NO<sub>x</sub> emissions in lbs for a unit as determined in subsection (g)(1) or (h)(1) of this Section.

$i$  = Subscript denoting an individual unit and fuel used.

$n$  = Number of different units in the averaging plan.

- 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<sub>x</sub> emissions using the following equations, except as provided for in subsection (h) of this Section:

- 1) Actual emissions must be determined as follows:

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

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

2) Allowable emissions must be determined as follows:

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

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

Where:

- EM<sub>act(i)</sub> = Total mass of actual NO<sub>x</sub> emissions in lbs for a unit, except as provided for in subsections (g)(3) and (g)(5) of this Section.
- EM<sub>all(i)</sub> = Total mass of allowable NO<sub>x</sub> emissions in lbs for a unit, except as provided for in subsection (g)(3) of this Section.
- E<sub>act</sub> = Actual NO<sub>x</sub> emission rate (lbs/mmBtu) calculated according to the above equation.
- E<sub>all</sub> = Allowable NO<sub>x</sub> emission rate (lbs/mmBtu) calculated according to the above equation, as applicable.
- H = Heat input (mmBtu/ozone season or mmBtu/year) calculated from fuel flow meter and the heating value of the fuel used.
- C<sub>d(act)</sub> = Actual concentration of NO<sub>x</sub> in lb/dscf (ppmv x 1.194 x 10<sup>-7</sup>) on a dry basis for the fuel used. Actual concentration is determined on each of the most recent test runs or monitoring passes performed pursuant to Section 217.394, whichever is higher.
- C<sub>d(all)</sub> = Allowable concentration of NO<sub>x</sub> in lb/dscf (allowable emission limit in ppmv specified in Section 217.388(a)(1), except as provided for in subsection (g)(4), (g)(5), (g)(6), or (g)(7) of this Section, if applicable, multiplied by 1.194 x 10<sup>-7</sup>) 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-7, Method 19 or as determined using 40 CFR 60, appendix A-7, 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  $NO_x$  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.
- $E_{\text{all rep}(i)}$  = Allowable NO<sub>x</sub> emission rate (lbs/mmBtu) of the replaced unit.
- i = Subscript denoting an individual electric unit and the fuel used.

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

B) On and after the unit's applicable compliance date pursuant to Section 217.392, the applicable emissions concentration for that type of unit pursuant 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<sub>x</sub> emissions rate used in the above equations set forth in subsection (g)(2) of this Section must be the higher of the actual NO<sub>x</sub> emissions as determined by testing or monitoring data or the applicable uncontrolled NO<sub>x</sub> emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104.

g-5) On and after May 1, 2025, the total mass of actual NO<sub>x</sub> emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO<sub>x</sub> emissions for those units on a 30-day rolling average basis. The following equation must be used to determine compliance:

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

Where:

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

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

$\underline{N_{act}}$   $\equiv$  Total sum of the actual NO<sub>x</sub> mass emissions from units included in the averaging plan for each fuel used (lbs per 30-day rolling average basis).

$\underline{N_{all}}$   $\equiv$  Total sum of the allowable NO<sub>x</sub> mass emissions from units included in the averaging plan for each fuel used (lbs per 30-day rolling average basis).

$\underline{EM_{all(i)}}$   $\equiv$  Total mass of allowable NO<sub>x</sub> emissions in lbs for a unit as determined in subsection (g-10)(2) or (h)(2) of this Section.

$\underline{EM_{act(i)}}$   $\equiv$  Total mass of actual NO<sub>x</sub> emissions in lbs for a unit as determined in subsection (g-10)(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-10) On and after May 1, 2025, for each unit in the averaging plan, and each fuel used by a unit, determine actual and allowable NO<sub>x</sub> emissions using the following equations, except as provided for in subsection (h) of this Section:

1)       Actual emissions must be determined as follows:

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

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

2)       Allowable emissions must be determined as follows:

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

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

Where:

EM<sub>act(i)</sub> ≡ Total mass of actual NO<sub>x</sub> emissions in lbs for a unit, except as provided for in subsections (g-10)(3) and (g-10)(5) of this Section.

EM<sub>all(i)</sub> ≡ Total mass of allowable NO<sub>x</sub> emissions in lbs for a unit, except as provided for in subsection (g-10)(3) of this Section.

E<sub>act</sub>       ≡ Actual NO<sub>x</sub> emission rate (lbs/mmBtu) calculated according to the above equation.

E<sub>all</sub>       ≡ Allowable NO<sub>x</sub> emission rate (lbs/mmBtu) calculated according to the above equation, as applicable.

H           ≡ 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<sub>x</sub> in lb/dscf (ppmv x 1.194 x 10<sup>-7</sup>) on a dry basis for the fuel used. Actual concentration is determined on each of the most recent test runs or monitoring passes performed pursuant to Section 217.394, whichever is higher.

$C_{d(all)}$   $\equiv$  Allowable concentration of NO<sub>x</sub> in lb/dscf (allowable emission limit in ppmv specified in Section 217.388(a)(1), except as provided for in subsection (g-10)(4), (g-10)(5), (g-10)(6), or (g-10)(7) of this Section, if applicable, multiplied by 1.194 x 10<sup>-7</sup>) 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.

$\%O_{2d}$   $\equiv$  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<sub>2d</sub>, 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<sub>x</sub> emissions from the affected unit that was replaced should be used in the averaging calculations and the actual NO<sub>x</sub> emissions for the electric-powered replacement unit (EM<sub>act elec(i)</sub>) are zero. Allowable NO<sub>x</sub> emissions for the electric-powered replacement are calculated using the actual total bhp-hrs generated by the electric-powered replacement unit during a 30-day rolling average period multiplied by the allowable NO<sub>x</sub> emission rate in lb/bhp-hr of the replaced unit. The allowable mass of NO<sub>x</sub> emissions from an electric-powered replacement unit (EM<sub>all elec(i)</sub>) must be determined by multiplying the nameplate capacity of the unit by the hours operated during a 30-day rolling average period and the allowable NO<sub>x</sub> emission rate of the replaced unit (E<sub>all rep</sub>) in lb/mmBtu converted to lb/bhp-hr. For this calculation the following equation should be used:

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

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Where:

$EM_{all\ elec(i)}$   $\equiv$  Mass of allowable NO<sub>x</sub> emissions from the electric-powered replacement unit in pounds per 30-day rolling average period.

$bhp$   $\equiv$  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.

$E_{all\ rep(i)}$   $\equiv$  Allowable NO<sub>x</sub> 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<sub>x</sub> emissions rate used in the above equations set forth in subsection (g-10)(2) of this Section must be the higher of the actual NO<sub>x</sub> emissions as determined by testing or monitoring data or the applicable uncontrolled NO<sub>x</sub> emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104, for the unit that was replaced.
- 5) For a unit that is replaced with purchased power, the allowable NO<sub>x</sub> emissions rate used in the equations set forth in subsection (g-10)(2) of this Section must be the emissions concentration set forth in Section 217.388(a)(1) or subsection (g-10)(6) of this Section, when applicable, for the type of unit that was replaced. For owners or operators replacing units with purchased power, the annual hours of operations that must be used are the calendar year hours of operation for the unit that was shut down, averaged over the three-year period prior to the shutdown. The actual NO<sub>x</sub> emissions for the units replaced by purchased power ( $EM_{(i)act}$ ) 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 (g-10)(2) of this Section must be:
- A) Prior to the applicable compliance date pursuant to Section 217.392, the higher of the actual NO<sub>x</sub> emissions as determined by testing or monitoring data or the applicable uncontrolled NO<sub>x</sub> emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Areas Sources, as incorporated by reference in Section 217.104; or
  - B) On and after the unit's applicable compliance date pursuant to Section 217.392, the applicable emissions concentration for that type of unit pursuant 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<sub>x</sub> emissions rate used in the above equations set forth in subsection (g-10)(2) of this Section must be the higher of the actual NO<sub>x</sub> emissions as determined by testing or monitoring data or the applicable uncontrolled NO<sub>x</sub> emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104.
- h) Until May 1, 2025, for ~~For~~ units that use CEMS, the data must show that the total mass of actual NO<sub>x</sub> emissions determined pursuant to subsection (h)(1) of this Section is less than or equal to the allowable NO<sub>x</sub> emissions calculated in accordance with the equations in subsections (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<sub>x</sub> emissions determined pursuant to subsection (h)(1) of this Section is less than or equal to the total mass of allowable NO<sub>x</sub> emissions calculated in accordance with the equations in subsections (g-5) and (h)(2) of this Section for each 30-day rolling average period. The equations in subsection (g-10) of this Section will not apply.
- 1) The total mass of actual NO<sub>x</sub> emissions in lbs for a unit (EM<sub>act</sub>) must be the sum of the total mass of actual NO<sub>x</sub> emissions from each affected unit using CEMS data collected in accordance with 40 CFR 60 or 75, or alternate methodology that has been approved by the Agency or USEPA and included in a federally enforceable permit.
  - 2) The allowable NO<sub>x</sub> 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.  
 $Flow_j$  = Stack flow (dscf/hr) for a given stack.  
 $Cd_j$  = Allowable concentration of  $NO_x$  (ppmv) specified in Section 217.388(a)(1) for a given stack ( $1.194 \times 10^{-7}$  converts to lb/dscf).  
 $j$  = subscript denoting each hour operation of a given unit.  
 $m$  = Total number of hours of operation of a unit.  
 $i$  = Subscript denoting an individual unit and the fuel used.

(Source: Amended at \_\_\_ 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 pursuant to Section 217.386(b).
- b-5) On and after May 1, 2025, an owner or operator of a stationary internal combustion engine or turbine subject to this Subpart Q shall not operate such affected engine or turbine unless the requirements of this Subpart Q are met. Compliance shall 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 such period and the total volume of products of combustion in such period.

- c) Before May 1, 2025, owners Owners and operators of an affected unit may use NO<sub>x</sub> allowances to meet the compliance requirements in Section 217.388 as specified in this subsection (c). A NO<sub>x</sub> allowance is defined as an allowance used to meet the requirements of a NO<sub>x</sub> trading program in which the State of Illinois participates where one allowance is equal to one ton of NO<sub>x</sub> emissions.
- 1) NO<sub>x</sub> 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 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<sub>x</sub> allowance for each ton or portion of a ton of NO<sub>x</sub> by which actual emissions exceed allowed emissions, as follows:
    - A) Where a low usage limitation under Section 217.388(a)(3)(B) has been exceeded, the owner or operator of the affected unit must calculate the NO<sub>x</sub> emissions resulting from the number of hours that exceeded the operating hour low usage limit and surrender to the Agency one NO<sub>x</sub> allowance for each ton or portion of a ton of NO<sub>x</sub> that was calculated.
    - B) For noncompliance with a limitation in an emissions averaging plan that includes low usage units, the owner or operator of the affected low usage unit must calculate the NO<sub>x</sub> emissions using the



applicable allowable emissions concentration from Section 217.388(a)(1).

- C) For noncompliance with a seasonal limit in Section 217.388(a)(2), only a NO<sub>x</sub> ozone season allowance must be used.
  - D) For noncompliance with the emissions concentration limits in Section 217.388(a)(1), low usage limitations in Section 217.388(a)(3) or an annual limitation in an emissions averaging plan in Section 217.388(a)(2), only a NO<sub>x</sub> annual allowance may be used.
  - E) Notwithstanding the provisions of subsections (c)(2)(C) and (c)(2)(D) of this Section, if a NO<sub>x</sub> annual trading program does not exist, a NO<sub>x</sub> ozone season allowance may be used for noncompliance with the emissions concentration limits in Section 217.388(a)(1), low usage limitations in Section 217.388(a)(3) or an annual limitation in an emissions averaging plan in Section 217.388(a)(2).
- 3) The owner or operator must submit a report documenting the circumstances that required the use of NO<sub>x</sub> allowances and identify what actions will be taken in subsequent years to address these circumstances and must transfer the NO<sub>x</sub> allowances to the Agency's federal NO<sub>x</sub> 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<sub>x</sub> allowances.

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

#### **Section 217.394      Testing and Monitoring**

- a) Before May 1, 2025, an~~an~~ owner or operator must conduct an initial performance test pursuant to subsection (c)(1) or (c)(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 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:
  - 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.

a-5) 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 such 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 pursuant to subsection (c)(1) or (c)(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.

b) An owner or operator of an engine or turbine must conduct subsequent performance tests pursuant to subsection (b)(1), (b)(2), and (b)(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;

- 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 pursuant to subsection (c) 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.
- c) 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<sub>x</sub> emissions must be measured while the affected unit is operating at peak load. If the unit combusts more than one type of fuel (gaseous or liquid), including backup fuels, a separate performance test is required for each fuel.
  - 2) For a turbine: The owner or operator must conduct a performance test using the applicable procedures and methods in 40 CFR 60.4400, as incorporated by reference in Section 217.104.
- d) Monitoring: Except for those years in which a performance test is conducted pursuant to subsection (a), (a-5), or (b) of this Section, the owner or operator of an affected unit or a unit included in an emissions averaging plan must monitor NO<sub>x</sub> concentrations annually, once between January 1 and May 1 or within the first 876 hours of operation per calendar year, whichever is later. If annual operation is less than 876 hours per calendar year, each affected unit must be monitored at least once every five years. Monitoring must be performed as follows:
- 1) A portable NO<sub>x</sub> monitor utilizing method ASTM D6522-2000, as incorporated by reference in Section 217.104, or a method approved by the Agency must be used. If the engine or turbine combusts both liquid and gaseous fuels as primary or backup fuels, separate monitoring is required for each fuel.

- 2) NO<sub>x</sub> and O<sub>2</sub> concentrations measurements must be taken three times for a duration of at least 20 minutes. Monitoring must be done at highest achievable load. The concentrations from the three monitoring runs must be averaged to determine whether the affected unit is in compliance with the applicable emissions concentration or emissions averaging plan, as specified in Section 217.388.
- e) Instead of complying with the requirements of subsections (a), (a-5), (b), (c) and (d) 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 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.
- f) The testing and monitoring requirements of this Section do not apply to affected units in compliance with the requirements of the low usage limitations pursuant to Section 217.388(a)(3) ~~or low usage units using NO<sub>x</sub> allowances to comply with the requirements of this Subpart pursuant to Section 217.392(e)~~, unless such units are included in an emissions averaging plan. 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.

(Source: Amended at \_\_\_ 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 pursuant to Section 217.386(b), and low usage units) or an affected unit that is not exempt pursuant to Section 217.386(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.
- 4-5) On and after May 1, 2025, total mass emissions on a daily basis and on a 30-day rolling average basis.
- 5) The results of all monitoring performed on the unit and reported deviations.
- 6) The results of all tests performed on the unit.
- 7) The plan for performing inspection and maintenance of the units, air pollution control equipment, and the applicable monitoring device pursuant to Section 217.388(a)(4).
- 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 ratio, timing or other settings).
- 9) 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.
- 10) 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.

- 11) Any NO<sub>x</sub> allowance reconciliation reports submitted pursuant to Section 217.392(c)(3).
  - 12) 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 (d) 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, pursuant to Section 217.394(a) and (b) and:
    - A) If, after the 30-days' notice for an initially scheduled test is sent, there is a delay (e.g., due to operational problems) in conducting the performance test as scheduled, the owner or operator of the unit must notify the Agency as soon as possible of the delay in the original test date, either by providing at least seven days prior notice of the rescheduled date of the performance test or by arranging a new test date with the Agency by mutual agreement;
    - B) Provide a testing protocol to the Agency 60 days prior to testing; and
    - C) Not later than 30 days after the completion of the test, submit the results of the test to the Agency.
  - 2) Pursuant to the requirements for monitoring in Section 217.394(d), the owner or operator of the unit must report to the Agency any monitored exceedances of the applicable NO<sub>x</sub> concentration from Section 217.388(a)(1) or (a)(2) within 30 days after performing the monitoring.
  - 3) Within 90 days after permanently shutting down an affected unit or a unit included in an emissions averaging plan, the owner or operator of the unit must withdraw or amend the applicable permit to reflect that the unit is no longer in service.

- 4) Until May 1, 2025, if demonstrating compliance through an emissions averaging plan:
- A) By October 31 following the applicable ozone season, the owner or operator must notify the Agency if he or she cannot demonstrate compliance for that ozone season; and
  - B) By January 31 following the applicable calendar year, the owner or operator must submit to the Agency a report that demonstrates the following:
    - i) For all units that are part of the emissions averaging plan, the total mass of allowable NO<sub>x</sub> emissions for the ozone season and for the annual control period;
    - ii) The total mass of actual NO<sub>x</sub> emissions for the ozone season and annual control period for each unit included in the averaging plan;
    - iii) The calculations that demonstrate that the total mass of actual NO<sub>x</sub> emissions are less than the total mass of allowable NO<sub>x</sub> emissions using equations in Sections 217.390(f) and (g); and
    - iv) The information required to determine the total mass of actual NO<sub>x</sub> emissions and the calculations performed in subsection (c)(4)(B)(iii) of this Section.
- 4-5) On and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by January 31 following the previous calendar year, the owner or operator must submit to the Agency a report that includes the following:
- A) For all units that are part of the emissions averaging plan, the total mass of allowable NO<sub>x</sub> emissions on a 30-day rolling average basis.
  - B) The total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis for each unit included in the averaging plan.

- C) The calculations that demonstrate that the total mass of actual NO<sub>x</sub> emissions is less than the total mass of allowable NO<sub>x</sub> emissions using equations in Sections 217.390(g-5) and (g-10).
  - D) The daily information required to determine the total mass of actual NO<sub>x</sub> emissions on a 30-day rolling average basis.
- 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.
- 6) If using NO<sub>x</sub> allowances to comply with the requirements of Section 217.388, reconciliation reports as required by Section 217.392(c)(3).
- c-5) On and after May 1, 2025, the owner or operator of an emission unit subject to Subpart Q must submit an annual compliance certification report that demonstrates compliance with the applicable requirements to the Agency for the preceding calendar year by May 1 of the following year. The owner or operator may submit the annual compliance certification report to the Agency along with the Annual Emissions Report required under 35 Ill. Adm. Code 254 or the compliance certification required under 415 ILCS 5/39.5(7)(p)(v). The compliance report must include the following:
- 1) Identification, type (e.g., lean-burn, gas-fired), and location of the emission unit.
  - 2) Methods used for determining compliance, including an emissions averaging plan, if applicable, a description of test methods, monitoring, recordkeeping, and reporting requirements.
  - 3) A certification of compliance with the applicable emissions concentration or identification of the periods of noncompliance with a quantification of the excess emissions concentration and the excess emissions.
  - 4) For each calendar month, the highest 30-day rolling average emission rate. The emissions data shall 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."
- d) 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<sub>x</sub> emissions for each calendar year;
  - 2) For each unit complying with Section 217.388(a)(3)(B), maintain a record of bhp or MW-hours operated each calendar year; and
  - 3) Before May 1, 2025, for~~For~~ each unit utilizing NO<sub>x</sub> allowances for compliance pursuant to Section 217.392(c)(3), maintain and submit any NO<sub>x</sub> allowance reconciliation reports.
- e) Instead of complying with the requirements of subsection (a) of this Section, subsection (b) of this Section, subsections (c)(1) through (c)(4-5) of this Section, and subsection (d) of this Section, an owner or operator of an affected unit complying with the requirements of Section 217.388(a)(1) and operating a CEMS on that unit may meet the applicable testing, monitoring, reporting and recordkeeping requirements for that CEMS of 40 CFR 75, as incorporated by reference in Section 217.1047.

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

# **TECHNICAL SUPPORT DOCUMENT**

**for**

**Proposed Rule Revisions for Part 217**

**AQPSTR 24-02**

**June 2024**

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
1021 NORTH GRAND AVENUE EAST  
P.O. BOX 19276  
SPRINGFIELD, IL 62794-9276

## **Introduction and Background**

The Illinois Environmental Protection Agency (“Illinois EPA” or “Agency”) is proposing amendments to Title 35 of the Illinois Administrative Code Part 217 (“Part 217”) to address emissions of oxides of nitrogen (“NO<sub>x</sub>”) in the Chicago and Metro East St. Louis (“Metro East”) nonattainment areas (“NAAs”). The revisions are being proposed to address the requirement for Reasonably Available Control Technology (“RACT”) for the Chicago and Metro East NAAs, which are currently classified as moderate.

This Technical Support Document (“TSD”) presents the rationale for and methodology relied upon to support the Agency’s proposed regulatory changes to Part 217. This document also discusses the technical feasibility and economic reasonableness of the proposed regulations, identifies the sources potentially affected by the proposed regulations, and demonstrates that the proposed amendments are consistent with the requirements of the Clean Air Act (“CAA”), including Section 110(l).

In 2015, the United States Environmental Protection Agency (“USEPA”) revised the 8-hour ozone NAAQS to a level of 0.070 parts per million (“ppm”). On June 4, 2018, USEPA designated certain areas of Chicago-Naperville in the states of Illinois, Indiana, and Wisconsin as well as areas of the Metro East in the states of Illinois and Missouri as marginal NAAs, effective August 3, 2018 (83 Fed. Reg. 25776). Both NAAs in Illinois failed to meet the 3-year attainment date deadline of August 3, 2021 - therefore, USEPA reclassified the areas from marginal to moderate, effective November 7, 2022 (87 Fed. Reg. 60897). States are required to implement RACT for NO<sub>x</sub> emissions, which are a precursor for ambient ozone formation, from major stationary sources as an element of an Attainment Plan for moderate NAAs.

The Agency previously proposed, and the Illinois Pollution Control Board (“Board”) adopted, NO<sub>x</sub> RACT rules for the Chicago and Metro East NAAs when they were in nonattainment of the 1997 Ozone NAAQS. These regulations were proposed in 2007 (R2007-18 and R2007-19), 2008 (R2008-019), and 2011 (R2011-24 and R2011-26 (consolidated)) and adopted by the Board and published in the Illinois Register on October 12, 2007, August 21, 2009, September 25, 2009, and September 2, 2011, respectively. However, these rules were never approved as a revision to the Illinois SIP by USEPA, except for R2007-18, applicable to the NO<sub>x</sub> SIP Call Phase II internal combustion engines, that was approved by USEPA for incorporation into the Illinois State Implementation Plan (“SIP”), 74 Fed. Reg. 30466 (June 26, 2009). The current proposed revisions are intended to satisfy relevant SIP obligations. To this end, the proposal addresses issues raised by USEPA regarding the State’s current RACT rules and updates various aspects of the rules to reflect what is currently considered RACT.

As stated above, the sections of Part 217 that were adopted by the Board to satisfy requirements of the NO<sub>x</sub> SIP Call Phase II for engines were submitted and approved by USEPA. Some of these provisions are impacted by the proposed revisions in this rulemaking (e.g., shorter averaging periods and requirements for electrical generating units (“EGUs”)), and those revisions will also be included in a submittal to USEPA.

## **NAA Counties**

The Chicago NAA is comprised of the 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. The Metro East NAA is comprised of the counties of Madison, Monroe, and St. Clair. Both NAAs in Illinois are currently classified as moderate for the 2015 8-Hour Ozone NAAQS.

## **RACT**

CAA Sections 172, 182(b), and 182(f) require RACT as a SIP element for all existing major sources of the applicable criteria pollutants and associated precursors located in NAAs. A source generally consists of several units that emit pollutants. The sum of emissions from all units at the source determines if a source is major and thus subject to RACT requirements.

USEPA defines RACT as:

*“The lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.” (44 FR 53762; September 17, 1979)*

For purposes of CAA Section 182(b), Section 302 of the CAA defines a major stationary source in a moderate ozone NAA as one that directly emits, or has the potential to emit, 100 tons per year (“TPY”) or more of NO<sub>x</sub>. CAA Section 182(c) indicates that in a serious nonattainment area, a major stationary source also includes one that emits, or has the potential to emit, at least 50 TPY of volatile organic compounds. The same applies to a source of NO<sub>x</sub> under CAA Section 182(f). While the Chicago and Metro East NAAs are not currently designated as serious, the monitoring data available to the Agency and the public (<https://www.epa.gov/air-trends/air-quality-design-values#report>) for the ozone seasons from 2021 to 2023 indicate that both NAAs will be reclassified as serious subsequent to the areas’ moderate attainment date of August 3, 2024, as the ozone design values at individual monitors in each area are above 0.070 ppm. Based on previous actions by USEPA, this reclassification will likely occur in 2025. For this reason, the Agency is lowering the source emissions threshold for NO<sub>x</sub> RACT applicability in the NAAs from 100 to 50 TPY, in order to meet the requirements for eventual attainment demonstrations for serious NAAs.

## **Potentially Affected Source Descriptions**

Part 217 sets standards and limitations for NO<sub>x</sub> emissions from stationary sources. Individuals and entities potentially affected by this action include owners and operators of stationary sources that emit NO<sub>x</sub>.

The proposed amendments are applicable to any industrial boiler, process heater, glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, aluminum reverberatory or crucible furnace, or fossil fuel-fired stationary boiler that emits NO<sub>x</sub> in an amount equal to or greater than 15 TPY and that is located at a source in the Chicago or Metro East ozone NAA that has the potential to emit NO<sub>x</sub> in an amount equal to or greater than 50 TPY. Stationary reciprocating internal combustion engines at such sources are subject if at nameplate capacity they are rated at equal to or greater than 500 brake horsepower (“bhp”) output, and the aggregate operation of all engines at the source is greater than 8 million brake horsepower hours (“mm bhp-hrs”) on an annual basis. Turbines at such sources are subject if they are rated at equal to or greater than 3.5 megawatts (“MW”) (4,694 bhp) output at 14.7 psia, 59°F and 60 percent relative humidity, and the aggregate operation of all turbines at the source is greater than 20,000 MW-hrs on an annual basis. Portions of the proposed amendments are also applicable to the engines specified in 217.Appendix G.

The Appendix to this TSD contains tables of potentially affected sources. These sources were selected as those that are most likely to have Part 217 emission limits apply to them in the event that the proposed revisions are adopted, as these sources have reported emitting an average of 25 tons or greater of NO<sub>x</sub> in the three years from 2020 to 2022. However, some sources may be unaffected if they have no units that will be subject to Part 217 emission limits, or if they were to limit source NO<sub>x</sub> emissions to less than the applicability threshold of 50 TPY. The Appendix also lists the sources subject to 217. Appendix G.

### **Existing and Proposed Amendments**

Illinois EPA's existing NO<sub>x</sub> RACT rules, other than the provisions addressing the NO<sub>x</sub> SIP Call Phase II engines, are not approvable by the USEPA due to several issues raised by USEPA subsequent to the rules' adoption by the Board in 2007, 2009, and 2011. The proposed amendments address these issues and include reducing compliance periods from an ozone season and annual basis to a 30-day rolling average basis, reducing the applicability thresholds of NO<sub>x</sub> emissions limitations for some units based upon rated heat input capacity from 100 to 50 million British thermal units per hour ("mmBtu/hr"), sunsetting provisions that allowed for the exclusion from calculations demonstrating compliance emissions during certain time periods relating to the shutdown of units or control equipment, and lowering emissions limitations for some specific unit categories. Rules adopted by the Board in 2007 to meet the requirements of the NO<sub>x</sub> SIP Call were submitted to USEPA and approved, however, some provisions of those rules are impacted by the proposed revisions.

The proposed amendments reflect emissions limitations and accompanying provisions that can be approved in attainment demonstrations submitted to USEPA for moderate NAAs, with the addition of lowering the source applicability threshold from 100 TPY to 50 TPY, to meet requirements for eventual serious NAA attainment demonstrations. Section-specific descriptions of the revisions follow below in order by Subparts of Part 217.

### **Environmental Impact**

As stated above, the Agency has proposed the revisions to Part 217 in order to meet the federal requirements for NO<sub>x</sub> RACT to be submitted as an element of a moderate NAA attainment demonstration. While the Agency anticipates that there will be NO<sub>x</sub> emission reductions in both NAAs due to the revisions, the Agency has not included a detailed analysis quantifying anticipated reductions. Quantifying emission reductions due to the proposed revisions would require additional data and source-specific information regarding compliance options (e.g., emissions averaging, limiting unit or source emissions below applicability or low-usage thresholds, additional controls, etc.). This analysis is simply not necessary at this juncture.

The potential emission reductions expected from the proposed revisions will primarily occur due to four substantive changes. The first is the increased number of sources with units that will be subject to emission limits in Subparts D through Q, due to the lowering of the source applicability threshold in Subparts D and Q from 100 to 50 TPY. The second is the reduction of the applicability threshold for the heat input capacity of boiler and process heater units in Subparts E and F. Third is the reduction of emission limits in Subpart Q for turbine units. Fourth is the addition of the 10 percent environmental benefit in the emissions averaging calculation procedures in Subparts D and Q.

The Agency does anticipate that there will be newly subject sources due to the reduction of the source applicability threshold - however, it is difficult to estimate the number of newly subject sources because in some cases sources may opt to limit their emissions below that threshold in the future and thus avoid applicability of the Part 217 limits. Likewise, it is difficult to quantify the emission reductions that are likely at newly subject sources because applicability may be avoided by units at those sources by limiting emissions or usage of particular units to below the unit applicability thresholds. Finally, many units at newly subject sources may already be meeting the Part 217 limits. Thus, while reductions of *actual* emissions from additional sources is likely, there will also be reductions in *allowable* emissions, but there is great uncertainty in quantifying either.

The same is true for the reduction of the applicability threshold for the heat input capacity of boiler and process heater units in Subparts E and F. Emissions from units with heat input capacities between 50 and 100 mmBtu/hr may be limited to avoid the unit emissions applicability threshold, or they may already be meeting the Part 217 emission limits. Thus, actual and allowable emission reductions are likely, but difficult to quantify.

Regarding the reduced emission limits for turbine units in Subpart Q, it is again difficult to quantify anticipated actual and allowable emission reductions that may result from the proposed revisions. From the Agency's analysis, this is because units at some sources may be able to meet the proposed limits without any additional emission control technology, some sources may be able to limit emissions to less than the source applicability threshold, and some sources may be able to utilize averaging plans to comply with the proposed limits.

The application of a 10 percent environmental benefit to sources using emissions averaging plans to comply with Part 217 limits is likely to result in actual and allowable emission reductions. In the case that a source is currently complying using an averaging plan, there will surely be allowable emission reductions and potentially actual emission reductions at that source. Annual allowable NO<sub>x</sub> emissions from sources that the Agency has identified that are currently using an averaging plan are in the neighborhood of 2,300 tons per year, while actual emissions from those sources is in the neighborhood of 1700 tons per year. Additionally, if there are more sources in the future that opt to use an averaging plan in order to comply with the proposed revisions, allowable emissions from those units will be reduced by 10 percent.

### **Technical Feasibility and Economic Reasonableness**

In drafting the proposed revisions to Part 217 and preparing technical support for the proposal, the Agency has reviewed available information regarding NO<sub>x</sub> control technologies, outreached to potentially affected sources, and analyzed information specific to potentially affected sources and emission units. The Agency has also consulted with USEPA regarding the approvability of the proposal and evaluated the standards and emissions limitations contained in NO<sub>x</sub> RACT rules that have been adopted or proposed in the Region 5 states including Indiana, Michigan, Minnesota, Ohio, and Wisconsin<sup>3</sup>.

The Agency has endeavored to ensure that the proposed revisions are both technically feasible and economically reasonable. In a number of instances, the Agency has determined that compliance with proposed revisions is likely to be achievable by all subject sources in a category without additional emissions control being applied at any identified potentially affected source. In some of those cases, detailed cost-effectiveness estimates for specific control technologies are not provided because no

sources in Illinois are likely to implement any new control strategies in order to comply with the proposed revisions.

### **USEPA Good Neighbor Federal Implementation Plan (“FIP”)**

On June 5, 2023, the USEPA promulgated the federal “Good Neighbor Plan” for the 2015 Ozone National Ambient Air Quality Standards, 88 Fed. Reg. 36654 (June 5, 2023), effective August 4, 2023, (“Good Neighbor Federal Implementation Plan (‘FIP’)”). This regulatory action requires emissions reductions, including NO<sub>x</sub>, from power plants and other industrial sources in a select group of states, including Illinois, in order to control the airborne spread of ozone precursors from these source categories to other “downwind” states. It includes NO<sub>x</sub> emission limits for non-EGU categories of emission units with a specific design rating or NO<sub>x</sub> PTE at a variety of source categories, including but not limited to Pipeline Transportation of Natural Gas, Cement and Concrete Product Manufacturing, and Glass and Glass Product Manufacturing.

For the source categories listed above and contained in the proposed Part 217 provisions, the Agency considered the source category-specific non-EGU NO<sub>x</sub> emission limits in the Good Neighbor FIP in the development and justification of the proposed Part 217 RACT limits. As USEPA states in the Good Neighbor FIP,<sup>10</sup> “for most of the non-EGU industries, the EPA is not mandating a specific control technology and is instead establishing numeric emissions limits that are uniform across the region and that allow sources to choose how to comply. The EPA’s analysis, including review of RACT determinations, consent decrees, and permitting actions, shows that these emissions limits and control requirements are achievable by existing units in the non-EGU industries covered by this final rule.” 88 Fed. Reg. 36683. In addition, “The EPA notes that the types and sizes of the EGU and non-EGU sources that the EPA includes in this rule, as well as the types of emissions control technologies on which the EPA bases the emissions limitations that would take effect for the 2026 and 2027 ozone seasons, generally are consistent with the scope and stringency of RACT requirements for existing major sources of NO<sub>x</sub> in downwind Moderate nonattainment areas and some upwind areas, which many states have already implemented in their SIPs.” 88 Fed. Reg. 36756. For the reasons highlighted by USEPA in the Good Neighbor FIP, the Agency considers the Good Neighbor FIP source category-specific non-EGU NO<sub>x</sub> emission limits to be appropriate benchmarks for comparison and evaluation of the proposed Part 217 RACT limits. Further discussion of how these Good Neighbor FIP limits were used in the Agency’s RACT analysis follows in this document for individual source category-specific RACT emission limits.  
9, 10, 11, 13

### **Subpart D: NO<sub>x</sub> General Requirements**

#### **Section 217.150 Applicability**

The moderate NAA SIP elements require that NO<sub>x</sub> RACT apply to sources that emit or have the potential to emit 100 TPY or more of NO<sub>x</sub>. However, Illinois EPA is lowering the applicability threshold to 50 TPY. This is because current monitoring data indicates it is likely that both areas will be reclassified as serious NAAs after the next attainment date of August 3, 2024. Lowering the applicability threshold to 50 TPY in this rulemaking will obviate the need for an additional Board rulemaking in the near future and will result in some early additional emission reductions.

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

Illinois EPA proposes to amend Section 217.152 to specify that on and after May 1, 2025, a demonstration of compliance with emissions limitations and concentrations in Subparts E, F, G, H, I, and M of Part 217 must be demonstrated on a 30-day rolling average basis. The existing rule requires compliance demonstrations on an ozone season and annual basis. USEPA has indicated that this 30-day rolling averaging period is the longest acceptable averaging period. Further, this is consistent with other RACT rules in the region. This updated averaging period may increase the effectiveness of the proposed emission limits in contributing to the prevention of ozone monitoring exceedances throughout the year.

### **Section 217.156 and 217.396 Recordkeeping and Reporting**

Current rules require compliance records for units subject to Subpart E, F, G, H, I, or M of Part 217 for ozone season and annual emissions. Under the proposed amendments, the current approach remains applicable until May 1, 2025. Thereafter, Illinois EPA proposes amending subsection (b) and adding subsection (i-5) to require a 30-day rolling average basis for compliance records for subject units.

For sources with units subject to Section 217.156 or Section 217.396, the Agency is also adding the requirement for the owner or operator of an emission unit subject to any of Subparts E, F, G, H, I, M, and Q to submit an annual compliance certification report that demonstrates compliance with the applicable requirements in these Subparts to the Agency by May 1 of the following year. This report can be submitted along with a source's Annual Compliance Certification or with its Annual Emissions Report. This additional reporting was included in response to recommendation by USEPA.

### **Section 217.158 Emissions Averaging Plans**

An Emissions Averaging Plan ("EAP") provides flexibility for units within a major stationary source to meet RACT requirements. EAPs enable a source to comply by averaging the emissions from units at the source.

In Section 217.158, an EAP can only address emission units that are located at one source, and each unit may only be covered by one EAP. In addition, Illinois EPA is proposing a 30-day rolling average basis, beginning May 1, 2025, for all EAP calculations. Pursuant to 35 IAC 211.6590, a "[t]hirty day rolling average" means any value arithmetically averaged over any consecutive thirty days. In the current regulations, the averaging time for units included in an EAP is for the ozone season (May 1 through September 30) and calendar year (January 1 through December 31).

The existing rules require an owner or operator to submit an EAP consisting of a list of affected units and a sample calculation demonstrating compliance for each ozone season and calendar year. Illinois EPA is proposing to require EAPs to also include the allowable emissions limitation for each unit, as provided in Sections 217.164, 217.184, 217.204, 217.224, 217.244, and 217.344, as applicable. Under the proposed amendments, sample calculations are based on a 30-day rolling average.

Illinois EPA proposes a further amendment to Section 217.158 that is based on Economic Incentive Program Guidelines ("EIP Guidelines") from USEPA's "Improving Air Quality with Economic Incentive Programs", EPA-452/R-01-001, January 2001.<sup>19</sup> These EIP Guidelines require EIPs to provide for a specific emissions cap or a 10 percent environmental benefit on calculated allowable



emissions to generate a benefit to the environment. Upon the recommendation of USEPA, Illinois EPA is updating the EAP compliance calculation methodology in Section 217.158 to incorporate this factor of 10 percent reduction from allowable emissions as required under the EIP Guidelines.

Finally, Section 217.158(h), (i), and (j) have been sunset effective May 1, 2025, in response to USEPA comments regarding the inappropriate exclusion of certain time periods from compliance demonstrations with an EAP when an emission unit or pollution control equipment is shut down.

## **Subpart E: Industrial Boilers**

### **Section 217.164 Emissions Limitations**

The Agency is proposing reducing the unit rated heat input capacity applicability threshold for emissions limitations from 100 to 50 mmBtu/hr. This is in response to the recommendation by USEPA to be consistent with approved RACT rules in other Region 5 states, namely Ohio and Michigan.<sup>3</sup> The specified pre-combustion controls described below are well-established control technologies for units with heat input capacities between 50 and 100 mmBtu/hr, and the cost-effectiveness of those measures demonstrates that they are also economically reasonable for units in that capacity range, especially given the additional flexibility provided by averaging plans.

Based on records and data available to the Agency, the number of boilers in either NAA that are between 50 to 100 mmBtu/hr heat input capacity and emit 15 tons or more of NO<sub>x</sub> per year is limited (four to eight units in both NAAs total). Further, Agency information indicates that newly subject boilers in this capacity range will be able to comply with the standard on a unit basis without additional control or by utilizing an EAP.

The existing Part 217 boiler limits for gas- and distillate oil-fired units are equivalent to those of Ohio and Wisconsin.<sup>3</sup>

Illinois' existing limits for non-solid fuel emissions units represent pre-combustion controls including Low NO<sub>x</sub> Burners ("LNB"), Flue Gas Recirculation ("FGR"), or a combination of the two. The existing limits can also be achieved using Ultra Low NO<sub>x</sub> Burners ("ULNB").<sup>1</sup>

The comparative NO<sub>x</sub> removal efficiencies and cost-effectiveness differences between these pre-combustion controls and post-combustion controls such as Selective Non-Catalytic Reduction ("SNCR") and Selective Catalytic Reduction ("SCR") are such that the existing non-solid fuel boiler limits in Subpart E continue to be RACT.

The USEPA Menu of Control Measures<sup>4</sup> (last updated 9/22/2022) contains cost-effectiveness estimates for LNB and FGR of \$13,800/ton for units with a potential to emit ("PTE") between 50 and 100 TPY, and \$7,400/ton for units with a PTE equal to or greater than 100 tons. The Menu of Control Measures also contains cost effectiveness estimates for ULNB of \$4,600/ton for units with a PTE between 50 and 100 TPY, and \$2,500/ton for units with a PTE equal to or greater than 100 tons. Menu of Control Measures cost estimates for SCR and SNCR are \$11,440/ton and \$11,000/ton, respectively.

Given that all units with heat input capacity equal to or greater than 100 mmBtu/hr and NO<sub>x</sub> emissions equal to or greater than 15 TPY have had to comply with the existing RACT limits previously adopted

by the Board, this level of control has already been established as technically feasible and economically reasonable.

Additionally in Subpart E, the Agency proposes lowering the emission limits for industrial boilers with a rated heat input capacity greater than 50 mmBtu/hr that combust solid fuel. The limits for solid fuel units have been revised to be consistent with USEPA-approved RACT limits in other states in the region, namely Michigan and Ohio (and adopted rules in Wisconsin).<sup>3</sup> However, based on records and data available to the Agency, all subject boilers in both NAAs fire gaseous fuels (some units may have the ability to fire oil as backup), and none combust solid fuels.

## **Subpart F: Process Heaters**

### **Section 217.184 Emissions Limitations**

The Agency is proposing reducing the applicability threshold for unit heat input capacity from 100 to 50 mmBtu/hr. The specified pre-combustion controls described below are also well-established control technologies for units with heat input capacities between 50 and 100 mmBtu/hr, and the cost-effectiveness of those measures demonstrate that they are also economically reasonable for units in that capacity range, especially given the additional flexibility provided by averaging plans. Based on records and data available to the Agency, the number of process heaters in either NAA that are between 50 to 100 mmBtu/hr heat input capacity and emit equal to or greater than 15 tons of NO<sub>x</sub> per year is limited (two to six units in both NAAs total). Further, Agency information indicates that newly subject process heaters in this capacity range will be able to comply with the standard on a unit basis without additional control or by utilizing an EAP.

The Agency is not proposing to change the emission limits in Subpart F. Illinois' existing limits represent pre-combustion controls including LNB or ULNB. The comparative NO<sub>x</sub> removal efficiencies and cost-effectiveness differences between these pre-combustion controls and post-combustion controls such as SCR are such that the existing Subpart F limits continue to be RACT.

Specifically, the Ramboll White Paper: NO<sub>x</sub> Emission Controls for Stationary Sources in the LADCO Region, February 2022, ("Ramboll White Paper")<sup>1</sup>, cites NO<sub>x</sub> control costs of approximately \$4,850/ton of NO<sub>x</sub> controlled for LNB and \$3,090 for UNLB, while SCR control is \$11,080/ton. The approximate control efficiencies of LNB, UNLB, and SCR on this class of unit are 50%, 75%, and 85%, respectively. The cost for SCR is three to four times higher than UNLB while providing less than 20% additional marginal emission reductions. Further, given that all units with heat input equal to or greater than 100 mmBtu/hr and NO<sub>x</sub> emissions equal to or greater than 15 TPY are currently complying with the existing RACT limits, this level of control is technically feasible and economically reasonable.

The existing Part 217 limits for process heaters are more stringent than those in Michigan and Wisconsin for all categories of process heater designs with emission limits under Subpart F.<sup>3</sup>

## **Subpart G: Glass Melting Furnaces**

### **Section 217.204 Emissions Limitations**

The Illinois EPA is proposing changing emission limits for container glass, flat glass, and other glass to better represent RACT in the state. The glass melting furnace limits for both container glass and other

glass are being lowered to the Good Neighbor FIP emissions limit of 4.0 pounds per ton (“lb/ton”) of glass produced. The limit for flat glass is being lowered to 7.0 lb/ton of glass produced to also mirror the emissions limit in the Good Neighbor FIP. These limits reflect technically feasible and economically reasonable standards consistent with LNB for affected units with an average cost-effectiveness estimate of \$939 per ton of NO<sub>x</sub>.<sup>11</sup>

From information available to the Agency, there are only two subject units in the Chicago NAA and none in the Metro East NAA. Both units are complying with existing limits for container glass production. While neither unit is subject to the Good Neighbor FIP discussed above because their emissions are less than the applicability threshold in the FIP, from analysis of Agency information and outreach to a particular affected source, both units in the Chicago NAA are currently complying with existing limits for container glass and will likely be able to comply with the proposed limits without needing additional control. Further, one of the sources subject to the limits in this subpart is also subject to a consent decree that requires significantly lower NO<sub>x</sub> emissions than the proposed limits, and the other subject source is currently in the process of negotiating a consent decree.

## **Subpart H: Cement and Lime Kilns**

### **Section 217.224 Emissions Limitations**

The proposed emission limits for cement and lime kilns have been revised to reflect the limits in the Good Neighbor FIP. However, there are no subject units in either NAA in Illinois. Any new units in this source category would be subject to the requirement to obtain a construction permit. It is unlikely that any new sources in this category would be authorized to construct in either NAA without being subject to standards that would be more stringent than RACT.

## **Subpart I: Iron and Steel and Aluminum Manufacturing**

### **Section 217.244 Emissions Limitations**

Reheat, annealing, and galvanizing furnaces are used in integrated iron and steel plants in which steel is produced by reduction of iron ore in a blast furnace. Slabs, billets, and blooms from a continuous caster are typically reheated to a suitable working temperature in a reheat furnace prior to further shaping. Ingots are typically heated in soaking pits prior to further processing. Reheat furnaces are high temperature, fossil fuel-burning furnaces that are sources of NO<sub>x</sub> emissions.

After steel comes out of a reheat furnace or soaking pit, it can be further processed in annealing and galvanizing furnaces. Flat-rolled steel products such as coils of sheets are sometimes annealed to enhance some physical properties of the product. Annealing consists of subjecting steel to a carefully controlled thermal cycle to relieve stresses induced by hot and cold working. Galvanizing, which consists of coating steel with zinc, aluminum, or other alloys, is done to protect steel from corrosion.

Reheat, annealing, and galvanizing furnaces may use preheated combustion air or ambient combustion air. Furnaces using preheated combustion air are equipped with regenerative or recuperative systems to recover heat from the exhaust gases to improve thermal efficiency. Improved thermal efficiency will generally reduce total NO<sub>x</sub> emissions (but not necessarily emission rates in pound per million Btu (“lb/mmBtu”)) since heat input per unit output is reduced.<sup>20</sup>

Under existing rules for cold air furnaces, reheat furnaces are subject to an emission limit of 0.03 lb/mmBtu, annealing furnaces are subject to an emission limit of 0.07 lb/mmBtu, and galvanizing furnaces are subject to an emission limit of 0.06 lb/mmBtu. Illinois EPA has not proposed changes to these limits in this rulemaking proposal.

The proposed emission limit for reheat furnaces (regenerative and recuperative) is 0.09 lb/mmBtu and is the same as the existing limit for recuperative furnaces that burn natural gas. The existing specific limits for regenerative reheat furnaces and recuperative reheat furnaces combusting a combination of natural gas and coke oven gas are being eliminated, and furnaces that would have been subject to those unit categories will now be subject to the more general limit of 0.09 lb/mmBtu.

Likewise, the proposed limits for annealing and galvanizing furnaces (regenerative and recuperative) is 0.08 lb/mmBtu. The more specific existing limits for these unit categories have been eliminated, and furnaces that would have been subject to those categories will now be subject to the more general limit of 0.08 lb/mmBtu.

The proposed limits reflect control efficiencies achieved by LNB or LNB + FGR<sup>1</sup> and are consistent with other states with approved NO<sub>x</sub> RACT rules in USEPA Region 5, including Ohio, and with adopted rules in Wisconsin.<sup>3</sup> The Menu of Control Measures<sup>4</sup> lists control cost estimates for LNB and LNB + FGR for units with emission limits in Subpart I in a range between \$520 and \$1301 per ton.

Illinois EPA research and outreach indicate that all subject units in this source category are reheat furnaces for which there is no proposed change to the existing emission limit. These subject units will be able to continue to comply with the proposed limits on a unit basis or by utilizing an EAP without implementing additional controls.

## **Subpart M: Electrical Generating Units**

### **Section 217.344 Emissions Limitations**

While the Agency proposes amendments to the source-wide applicability for units in this and other categories in Section 217.150 from 100 TPY to 50 TPY, there are no subject EGU boilers in either NAA in Illinois. The Agency is not proposing amendments to the emission limits currently in place for subject EGUs.

## **Subpart Q: Stationary Reciprocating Internal Combustion Engines and Turbines**

### **Section 217.386 Applicability**

The moderate NAA SIP elements require that NO<sub>x</sub> RACT apply to sources that emit or have the potential to emit 100 TPY or more of NO<sub>x</sub>. However, Illinois EPA is lowering the applicability threshold to 50 TPY. This is because current monitoring data indicates it is likely that both areas will be reclassified as serious NAAs after the next attainment date of August 3, 2024. Lowering the applicability threshold to 50 TPY in this rulemaking will obviate the need for an additional Board rulemaking in the near future and may result in some additional early emission reductions.

## **Section 217.388 Control and Maintenance Requirements**

### Process and Control Technology Description

#### Stationary Reciprocating Internal Combustion Engines (“RICE”)

RICE can be fueled by diesel, gasoline, or natural gas. In a RICE, the fuel is compressed in a small volume and ignited, creating pressure that pushes pistons through its cylinders. There are two types of ignition used for RICE: compression ignition (“CI”) and spark ignition (“SI”).

In CI, air is heated in the cylinder and diesel fuel is pumped into the heated and pressurized cylinder, igniting spontaneously. CI engines are synonymous with diesel engines. In SI, combustion is started through an electric discharge. All reciprocating natural gas-fueled engines use SI.

Reciprocating engines have either four-stroke or two-stroke operating cycles. A typical automotive engine uses a four-stroke cycle of intake, compression, power, and exhaust. Two-stroke engines complete the power cycle in a single engine revolution compared to two revolutions for four-stroke engines. This means that for a two-stroke engine, the intake and compression stages are combined into one stroke, as are the power and exhaust stages.

Two other parameters that impact engine design and emissions profile are the air-to-fuel ratio and the exhaust oxygen content. Rich-burn engines typically operate with an air-to-fuel ratio near stoichiometric and exhaust oxygen concentrations of one percent or less. Lean-burn engines have a higher air-to-fuel ratio and typical exhaust oxygen concentrations of greater than one percent. Ultimately, natural gas-fired RICE can be distinguished between the categories of four-stroke rich-burn (“4SRB”), four-stroke lean-burn (“4SLB”), and two-stroke lean-burn (“2SLB”). Each of these RICE categories require unique pre-combustion control technology to maximize the control of NO<sub>x</sub> emissions.

RICE are significant sources of NO<sub>x</sub> because they burn fuel at high temperatures and pressure, which causes the nitrogen and oxygen in the air that sustains the combustion to unite and form the various oxides of nitrogen that constitute NO<sub>x</sub>. Thermal NO<sub>x</sub> is the predominant mechanism by which NO<sub>x</sub> is formed in RICE. Reducing peak combustion temperatures and pressures are therefore effective in reducing NO<sub>x</sub> emissions from RICE.<sup>21</sup>

#### Stationary Turbines

In a turbine, air flows through compressor blades to the combustor, in which fuel is added to the air stream; the combustion generates a high-temperature gas which enters the turbine and drives the compressor. Energy from the hot expanding exhaust gases is then recovered in the form of shaft horsepower, and the balance of recovered shaft energy is available to drive external load units.

The heat content of gases exiting the turbine can either be discarded without heat recovery (simple cycle); used with a heat exchanger to preheat combustion air entering the combustor (regenerative cycle); used with or without supplementary firing, in a heat recovery steam generator to raise process steam temperature (cogeneration); or used with or without supplementary firing to raise steam temperature for a steam turbine Rankine cycle (combined cycle).

The principal type of NO<sub>x</sub> formed in a turbine firing natural gas or distillate oil is thermal NO<sub>x</sub>. Most thermal NO<sub>x</sub> is formed in high temperature stoichiometric flame pockets downstream of fuel injectors where combustion air has mixed sufficiently with the fuel to produce the peak temperature fuel/air interface. The maximum thermal NO<sub>x</sub> production occurs at a slightly fuel-lean mixture because of excess oxygen available for reaction. The control of stoichiometry is critical in achieving reduction in thermal NO<sub>x</sub>. The thermal NO<sub>x</sub> generation also decreases rapidly as the temperature drops below the adiabatic temperature (for a given stoichiometry). Maximum reduction in thermal NO<sub>x</sub> generation can thus be achieved by control of both the combustion temperature and the stoichiometry.

Oil-fired turbines also produce NO<sub>x</sub> emissions from the nitrogen content of the fuel – during combustion, this nitrogen can react with oxygen to produce NO<sub>x</sub>.<sup>21</sup>

### **Technical Feasibility of Controls**

For RICE and turbines, both combustion controls and post-combustion catalytic reduction technologies can reduce NO<sub>x</sub> emissions. Combustion controls for RICE are referred to as layered combustion.<sup>5</sup> These controls function by modifying the combustion process to influence oxygen availability and peak flame temperature. Ignition timing retard lowers the peak flame temperature by delaying the onset of combustion and can be used to control NO<sub>x</sub> emissions from diesel engines.<sup>5</sup> For turbines, water or steam injection and dry low-NO<sub>x</sub> combustors are combustion control technologies used to reduce NO<sub>x</sub> emissions.<sup>6</sup> The post-combustion control strategies that destroy NO<sub>x</sub> for turbines and RICE are SCR<sup>6</sup> and NSCR<sup>5</sup>.

#### Layered Combustion

Layered combustion encompasses a variety of methods that function to decrease NO<sub>x</sub> emissions from RICE by altering the intake, compression, and/or power strokes of the cylinder power cycle. Layered combustion methods include air/fuel (A/F) ratio control, improved fuel injection control (commonly referred to as Pre-Stratified Charge or “PSC”), installation of turbochargers and inter-cooling, and pre-chamber ignition or high energy ignition. The term Low Emission Combustion (“LEC”) is sometimes used to refer to the combination of turbochargers and inter-cooling with pre-chamber or high-energy ignition. These layered combustion techniques can provide maximum NO<sub>x</sub> control levels of 85-90% compared to uncontrolled emissions.<sup>4</sup>

Due to the careful control of air-to-fuel ratio and fuel injection procedures required in designing and operating CI engines, none of these layered combustion techniques are applicable to controlling NO<sub>x</sub> emissions from diesel engines.

Lowering the air-to-fuel ratio in rich-burn engines limits oxygen availability in the cylinder, thus decreasing NO<sub>x</sub> emissions both by lowering peak flame temperature and by producing a reducing atmosphere. In lean-burn engines, increasing the A/F ratio decreases NO<sub>x</sub> emissions. Extra air dilutes the combustion gases, thus lowering peak flame temperature and reducing thermal NO<sub>x</sub> formation. This combustion method applied alone can reduce emissions of NO<sub>x</sub> up to 40% from uncontrolled levels.<sup>5, 21</sup>

In developing the emission limits that currently apply to RICE in Part 217, Illinois EPA assumed a level of control equivalent to the optimization of layered combustion techniques (including PSC and LEC) for the emission limits in Section 217.388(a)(1)(A) through (C) which apply to 4SRB, 4SLB, and 2SLB RICE categories, respectively. In the proposed revisions, Illinois EPA retains these emission limits and

continues to view optimized layered combustion as the appropriate NO<sub>x</sub> RACT control technology. Additional justification is set forth below.

### Ignition Timing Retard

Ignition timing retard (“ITR”) lowers NO<sub>x</sub> emissions by moving the ignition event to later in the power stroke when the piston has begun to move downward. Because the combustion chamber volume is not at its minimum, the peak flame temperature will be reduced, thus reducing thermal NO<sub>x</sub> formation.

ITR is applicable to all engines. It is implemented in SI engines by changing the timing of the spark, and in CI engines by changing the timing of the fuel injection. ITR is the sole pre-combustion NO<sub>x</sub> control that is applicable to CI engines.

Emissions reductions attainable using ITR are variable, depending upon the engine design and operating conditions, and particularly on the air/fuel ratio. Reductions also are restricted by limitations on the extent to which ignition may be delayed, in that excess retard results in engine misfire. Retard also normally results in decreased fuel efficiency. For CI engines, achievable emissions reductions vary from 20-30 percent.<sup>5, 21</sup> For SI engines, Illinois EPA views ITR as superseded by the layered combustion technologies that are to be RACT.

### Water/Steam Injection

Water/steam injection for turbines lowers peak flame temperatures by providing an inert diluent, limiting thermal NO<sub>x</sub> formation. Water may be injected directly into the turbine combustor or converted to steam using turbine exhaust waste heat (with a heat recovery steam generator), and then injected into the combustor. More steam than water must be used to achieve a comparable NO<sub>x</sub> reduction.

For natural gas-fired turbines, controlled emissions levels of 25-42 ppm are attainable with water or steam injection. For distillate oil, controlled emissions of 42-110 ppm are attained with similar water-to-fuel ratios. The lower values of 25 and 42 ppm for natural gas-fired and oil-fired turbines, respectively, represent the maximum level of NO<sub>x</sub> control from water or steam injection, which corresponds to emissions reductions greater than 90%.

The need to increase water-to-fuel ratios for increased emission reductions limits NO<sub>x</sub> control capabilities. High water-to-fuel ratios result in increased hydrocarbon and greatly increased CO emissions. Further, because heating injected water consumes energy, turbine fuel efficiency may decrease. Wet injection may increase required turbine maintenance because of pressure oscillations or erosion caused by contaminants in the feed water.<sup>6, 21</sup>

### Dry Low-NO<sub>x</sub> Combustors

Dry low-NO<sub>x</sub> (“DLN”) combustors encompass several different technologies. Lean premixed combustion is the commercially available technology that affords the largest NO<sub>x</sub> reductions. It functions by providing a large amount of excess air to the combustion chamber, lowering peak temperatures by dilution. Air and fuel are premixed in lean premixed combustors to avoid the creation of local fuel-rich, and therefore high-temperature, regions.

Lean premixed combustor retrofits face varying difficulties. Because lean premixed combustors reduce thermal NO<sub>x</sub> generation only, they are less effective on oil-fired than on gas-fired turbines. Except in the case of silo combustors, which are external to the turbine body, the retrofits may require some modification of the combustor section of the turbine. Water/steam injection provides comparable reductions on oil-fired turbines without retrofit of DLN combustors.

Controlled emissions levels achievable on gas-fired turbines using DLN combustors range from 9-25 ppm. These figures correspond to maximum NO<sub>x</sub> emissions reductions of greater than 95 percent. Maximum reductions are attained only at high turbine loads. Given reduced feed requirements at low loads, premixing would yield air/fuel mixtures near the lean flammability limit, with resulting flame instability and high carbon monoxide (“CO”) emissions. Thus, lean premixed combustors use diffusion flames at low loads.<sup>6, 21</sup>

### Non-Selective Catalytic Reduction

Non-selective catalytic reduction (“NSCR”) uses a three-way catalyst to promote the reduction of NO<sub>x</sub> to nitrogen and water. Exhaust CO and hydrocarbons (“HC”) are simultaneously oxidized to carbon dioxide and water. NSCR is applicable only to rich-burn engines with exhaust oxygen concentrations below approximately one percent. Lean-burn engine exhaust contains insufficient CO and HC for the reduction of the NO<sub>x</sub> present. Controlled emissions achievable with NSCR are below 1 gram per brake horsepower-hour (“g/bhp-hr”) (approximately equivalent to 70 ppm), corresponding to emissions reductions greater than 90 percent. NSCR controls are not feasible for turbines.

NSCR retrofits, in addition to the catalyst and catalyst housing, require installation of an oxygen sensor and feedback controller to maintain an appropriate A/F ratio under variable load conditions.<sup>5, 21</sup>

### Selective Catalytic Reduction

Selective Catalytic Reduction (“SCR”) is the catalyzed reduction of NO<sub>x</sub> with injected ammonia. SCR is applicable only to lean-burn engines with greater than approximately one percent exhaust oxygen, as oxygen is a reagent in the selective reduction reaction. SCR controls can reduce NO<sub>x</sub> emissions from 4SLB engines by greater than 90%, leading to NO<sub>x</sub> emissions as low as 1.5 g/bhp-hr (approximately equivalent to 105 ppm).

For turbines, achievable NO<sub>x</sub> emissions reductions using SCR exceed 95 percent, which corresponds to controlled emissions below 10 ppm and 25 ppm for gas-fired and oil-fired turbines, respectively. SCR can be combined with pre-combustion controls such as water injection and DLN combustors to achieve emissions as low as 2 ppm. Retrofitting SCR involves installation of the reactor and catalyst, appropriate ductwork, an ammonia storage and distribution system, and a control system for variable load operation.<sup>5, 6, 21</sup>

### **RACT Determination**

As stated previously, Illinois EPA has determined that RACT for natural gas-fired RICE is appropriately represented by the optimization of layered combustion controls. This determination has not changed since the currently applicable Part 217 emission limits for the source category were adopted – as such, Illinois EPA has not changed the emissions limits in Section 217.388(a)(1)(A) and (B) in this rulemaking.



For existing 2SLB engines (synonymous with “existing spark-ignited Worthington engines” as contained in the Section 217.388 rule provisions), Illinois EPA considers the existing limit of 365 ppm (approximately equivalent to 5.0 g/bhp-hr) in Section 217.388(a)(1)(C) to be RACT due to the age of these engines, the cost of additional controls, and the limited marginal NO<sub>x</sub> reduction potential within the two NAAs achievable from improved pre-combustion control technologies on these engines.

Furthermore, existing 2SLB engines that are greater than 1000 bhp power output and employed in pipeline transportation of natural gas will be subject to a lower limit (3.0 g/bhp-hr) under the Good Neighbor FIP during the ozone control season.<sup>10</sup> It is also noted in USEPA’s “NO<sub>x</sub> Emission Control Technology Installation Timing for Non-EGU Sources - Final Report” that there may be considerable delays in installing additional controls for this category of engine due to supply chain and vendor availability issues.<sup>12</sup>

For CI RICE, Illinois EPA is lowering the emissions limit in Section 217.388(a)(1)(D) from 660 to 210 ppm for all diesel engines that are constructed on and after May 1, 2025. This lower limit corresponds to post-combustion controls, as opposed to the prior assumed control technology of ITR.<sup>5, 21</sup> The lower limit for new diesel engines is considered SIP strengthening to achieve additional NO<sub>x</sub> control in future years, while the current limit for the category has been determined by the Agency to be RACT for existing engines. New engines that meet this lower limit are readily commercially available, and cost data for the retrofit of existing units with post-combustion control are not applicable to new units.

Illinois EPA is lowering the emission limits for gas-fired and oil-fired turbines in Section 217.388(a)(1)(E) and (F) from 42 and 96 ppm (existing limits) to 25 and 65 ppm (proposed), respectively. The emission limit in Section 217.388(a)(1)(E), which applies to natural gas-fired turbines, corresponds to an assumed control technology of either installation of DLN combustors, or the installation and/or optimization of water or steam injection. The emission limit in Section 217.388(a)(1)(F), which applies to oil-fired turbines, corresponds to an assumed control technology of the installation and/or optimization of water or steam injection.<sup>6, 21</sup>

## **Affected Sources in Illinois**

### Engines

Illinois EPA estimates that within the Chicago NAA, there are 58 stationary RICE with power output greater than 500 bhp located at sources with a potential to emit equal to or greater than 50 tons of NO<sub>x</sub> per year. Agency analysis shows that 22 of those units are diesel-fired CI RICE, and 36 units are natural gas-fired SI RICE. It is likely that a great majority of these units will not be subject to the limitations in 217.388(a)(1) because they will be operated as low usage units pursuant to 217.388(a)(3)(B)(i).

In the Metro East NAA, no engines with power output equal to or greater than 500 bhp located at sources with a potential to emit equal to or greater than 50 TPY of NO<sub>x</sub> have emitted more than two tons of NO<sub>x</sub> in any of the years 2020, 2021, and 2022. From Agency information about the sources where these units are located, it is likely that no units will be subject to the limits in Section 217.388(a) because units aggregated at these sources will not exceed the 8 mm bhp-hr threshold in Section 217.388(a)(3)(B)(i).

In the Chicago NAA, only 11 potentially affected SI RICE units emitted more than seven tons of NO<sub>x</sub> in any of the years 2020, 2021, and 2022. Nine of those units will be also subject to the Good Neighbor FIP ozone season NO<sub>x</sub> limits for engines employed in the pipeline transportation of natural gas, which are lower than the existing and proposed Part 217 limits for each of the categories of 4SRB, 4SLB, and 2SLB engines.

The proposed and existing Part 217 RACT limits for RICE are equivalent or more stringent than those of Ohio and Wisconsin for all subject categories.<sup>3</sup>

### Turbines

According to information available to the Agency, there are 51 turbines in the Chicago NAA with power output equal to greater than 3.5 MW located at nine sources emitting equal to or greater than 50 tons of NO<sub>x</sub> per year. Of those 51 units, 46 are EGUs at facilities strictly generating electricity with multiple units at each facility. Based on Agency analysis and outreach, it is likely that the units at those facilities will be able to comply with the proposed limits, either on a unit basis without additional control or by using an EAP. The five units that are not at EGU facilities are at three industrial facilities. At these facilities, Agency analysis and outreach indicate that the sources will be able to comply using an EAP or may require additional control.

The proposed emission limits for turbines reflect implementing control technology commensurate with water/steam injection or DLN.<sup>6, 21</sup> The Ramboll White Paper provides control cost estimates of \$970/ton (2020 dollars) for DLN combustors and \$2,781/ton (2020 dollars) for water or steam injection.<sup>1</sup> The USEPA Menu of Control Measures provides estimates of \$434/ton (2018 dollars) for DLN combustors and \$2,588/ton (2018 dollars) for water or steam injection.<sup>4</sup>

The proposed RACT limits for turbines are equivalent or more stringent than those of Michigan and Ohio for all categories of subject turbines.<sup>3</sup>

### Low-Usage Units

Illinois EPA proposes to sunset Section 217.388(a)(3)(A). Section 217.388(a)(3)(A) regards sources with less than 100 TPY NO<sub>x</sub> PTE aggregated from all engines and turbines located at the source that are not otherwise exempt pursuant to Section 217.386(b).

Section 217.388(a)(3) allows sources to operate engines and turbines as “low-usage units”, meaning such units are not subject to the requirements of Subpart Q except for the requirements to inspect and maintain the unit pursuant to Section 217.388(a)(4), test as required by Section 217.394(f), and retain records pursuant to Section 217.396(b) and (d). According to USEPA recommendation, using aggregate source-wide NO<sub>x</sub> PTE from all engines and turbines combined at a source, as in Section 217.388(a)(3)(A), is an inappropriate threshold for determining what constitutes low-usage units. The source-wide applicability of 50 TPY in Section 217.386(a-5) would apply in the event of adoption of the proposed revisions, and the low-usage unit provision in Section 217.388(a)(3)(B) remains as an appropriate threshold for low-usage units aggregated at a source.

### **Section 217.390 Emissions Averaging Plans**

In the current regulations, the averaging time for units included in an EAP is for the ozone season (May 1 through September 30) and calendar year (January 1 through December 31). As with Section 217.158 of Subpart D, Illinois EPA is proposing amendments that establish a 30-day rolling average basis, beginning May 1, 2025, for all existing and new units in EAP calculations under Section 217.390. As previously stated above, pursuant to 35 IAC 211.6590, “[t]hirty day rolling average” means any value arithmetically averaged over any consecutive thirty days.

Also as stated above, the existing rules require an owner or operator to submit an EAP consisting of a list of affected units and a sample calculation demonstrating compliance for each ozone season and calendar year. Illinois EPA is proposing to require EAPs to also include the allowable emissions limitation for each unit, as provided in Section 217.388 of this Part. Under the proposed amendments, sample calculations are based on a 30-day rolling average.

Illinois EPA proposes a further amendment to Section 217.390 based on USEPA’s EIP Guidelines.<sup>19</sup> As stated above, the EIP Guidelines require EIPs, including EAPs, to provide for a specific emissions cap or a 10 percent environmental benefit on calculated allowable emissions to generate a benefit to the environment. Upon the recommendation of USEPA, Illinois EPA is also updating the EAP compliance calculation methodology within Section 217.390 to incorporate this factor of 10 percent reduction from allowable emissions as required under the EIP Guidelines.

### **Section 217.392 Compliance and 30-Day Rolling Average Basis**

Illinois EPA proposes to amend Section 217.392 to specify that on and after May 1, 2025, demonstration of compliance with emissions limitations in Subpart Q of Part 217 must be on a 30-day rolling average basis. The prior rule language required a compliance demonstration on an ozone season and annual basis; the updated averaging period will require compliance with applicable emissions limits in this Subpart on a more short-term basis, thereby preventing long-term periods (i.e., greater than one month) in which average emissions exceed the limits. In preventing such long-term periods of average emissions in excess of the limits, this updated averaging period may increase the effectiveness of the proposed emission limits in contributing to the prevention of ozone monitoring exceedances throughout the year.

Illinois EPA proposes to sunset subsection 217.392(c), which permits the use of emission allowances from NO<sub>x</sub> trading programs to cover for emission compliance shortfalls and to comply with the standards for NO<sub>x</sub> emission control. This subsection defines a NO<sub>x</sub> allowance as “an allowance used to meet the requirements of a NO<sub>x</sub> trading program in which the State of Illinois participates where one allowance is equal to one ton of NO<sub>x</sub> emissions.” According to USEPA comments, use of NO<sub>x</sub> allowances are not an appropriate vehicle for compliance with the NO<sub>x</sub> emissions limitations contained in the NO<sub>x</sub> RACT provisions under Part 217.

### **Section 217.396 Recordkeeping and Reporting**

Pursuant to the definition under 35 Illinois Administrative Code (“IAC”) 211.1920(e), “emergency or standby units” may operate for an additional 50 hours per year in non-emergency situations and still retain their exempt status under Subpart Q. Illinois EPA is proposing to require the owners or operators of the emergency or standby units to maintain records documenting the annual hours of operation of

these units in non-emergency situations. USEPA indicated that supporting documentation for this provision was needed.

**SIP Submittal to USEPA**

Illinois EPA has consulted with USEPA regarding the proposed amendments and, if adopted, will submit the amendments as an element of the moderate attainment demonstrations for each of the ozone NAAs in Illinois, and as a revision to the Illinois SIP.

Section 110(l) of the CAA states:

*Each revision to an implementation plan submitted by a State under this Act shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 171), or any other applicable requirement of this Act.*

The proposed amendments will not lead to an increase in the emissions of any pollutant in Illinois; accordingly, the amendments to Part 217 will not interfere with any applicable requirement concerning attainment and reasonable further progress, or any other applicable requirement of the CAA.

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**Appendix List of Potentially Affected NO<sub>x</sub> Sources****Chicago NAA**

<b>Illinois EPA ID Number</b>	<b>Source Name</b>	<b>City</b>	<b>Facility Reported, 3-year Average (TPY)</b>
197800AAA	Exxon Mobil Oil Corp	Channahon	901
197090AAI	CITGO Petroleum Corp	Lemont	569
197809AAO	Midwest Generation LLC	Joliet	510
063800AAC	Equistar Chemicals LP	Morris	464
031012ABI	Ingredion Inc	Bedford Park	357
043407AAF	Aurora Generation LLC	Aurora	220
063800AAE	Nouryon Surface Chemistry LLC	Morris	191
063800AAJ	Morris Cogeneration LLC	Morris	184
031081AEQ	Northwestern University	Evanston	167
063800AAM	Aux Sable Liquid Products	Morris	166
031600CRS	University of Illinois - Chicago	Chicago	143
197899AAB	University Park Energy LLC	University Park	136
031438ABC	Elgin Energy Center LLC	Elgin	128
111816AAA	ANR Pipeline Co	Woodstock	122
031300AAJ	Koppers Inc	Cicero	119
031069AAI	Ardagh Glass Inc	Dolton	116
097200ABB	Zion Energy Center	Zion	116
031174AAA	Progress Rail Locomotive Inc	McCook	107
097035ABN	PQ LLC	Gurnee	103
197808AAG	Elwood Energy LLC	Elwood	101
197045ABO	PQ LLC	Joliet	90
031258ABR	Cleveland-Cliffs Riverdale LLC	Riverdale	86
197800ABZ	INEOS Joliet LLC	Channahon	73
031600FQP	Chicago - Dept of Aviation	Chicago	71
031600FLT	University of Chicago	Chicago	64
197899AAC	LSP University Park LLC	University Park	62
031045AAJ	Gerresheimer Glass Inc	Chicago Heights	61
097125AAA	AbbVie Inc	North Chicago	57
089425AAC	Rocky Road Power LLC	East Dundee	57
197804AAB	Prairie View Recycling & Disposal Facility	Wilmington	55
097809AAD	Abbott Laboratories	North Chicago	53
031600AAR	Ford Motor Co	Chicago	52
031012AAO	Nalco Production LLC	Chicago	52
197800ABU	Guardian Pipeline Co	Channahon	47



089808AAA	Waste Mgmt-Settlers Hill RDF/Midway Landfill	Batavia	46
043803AAI	Greene Valley Recycling & Disposal	Naperville	44
111095ABI	Charter Manufacturing Co Inc	Woodstock	44
031600CGF	Vantage Oleochemicals Inc	Chicago	42
043065ABY	Nalco Co LLC	Naperville	40
031600FMR	WR Grace	Chicago	40
031300AAL	Stickney Water Reclamation Plant	Stickney	39
111080AAD	Scot Forge Co	Spring Grove	39
043802AAA	Argonne National Laboratory	Lemont	35
043055ABD	Molex LLC	Lisle	34
197800AAD	Loders Croklaan USA	Channahon	33
197090ABF	Matheson Tri-Gas Inc	Romeoville	32
031600AFV	Befesa Zinc US Inc	Chicago	31
031600CUO	Northwestern University Chicago Campus	Chicago	31
031600GUC	A Finkl & Sons Co	Chicago	31
031006AAC	Owens-Corning Corp	Summit	31
093807AAB	Grid at Rte 31	Aurora	30
043065AAG	INEOS US Chemicals Co	Naperville	28
031600CEZ	Mars Wrigley Confectionery US LLC	Chicago	28
031600FMX	Northwestern Memorial Hospital	Chicago	28
097125ABX	Energy Systems Group LLC	North Chicago	27
197800ABV	Midwestern Gas Transmission Co	Channahon	25

**Metro East NAA**

<b>Illinois EPA ID Number</b>	<b>Source Name</b>	<b>City</b>	<b>Facility Reported, 3-year Average (TPY)</b>
119090AAA	WRB Refining LP Wood River Refinery	Roxana	1,913
119813AAI	Granite City Works of United States Steel Corp	Granite City	722
119040ATN	Gateway Energy & Coke Co LLC	Granite City	370
163050AAD	Milam Recycling and Disposal Facility	Fairmont City	100
163121AAP	Veolia ES Technical Solutions LLC	Sauget	57
119010AAE	Alton Steel Inc	Alton	45
119020ABG	Wieland Rolled Products North America	East Alton	35

**Appendix G Sources**

<b>Illinois EPA ID Number</b>	<b>Source Name</b>
093802AAF	ANR Pipeline Company, Sandwich Compressor Station
027807AAC	Natural Gas Pipeline Company of America, Station 310
073816AAA	Natural Gas Pipeline Company of America, Station 110
113817AAA	Nicor Gas – Station #41
167801AAA	PEPL Glenarm Compressor Station
041804AAC	Tuscola (PEPL) Compressor Station
149820AAB	Pleasant Hill (PEPL) Compressor Station
085809AAA	East Dubuque Nitrogen Fertilizers, LLC

**CERTIFICATE OF SERVICE**

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

I have served the attached RULEMAKING PROPOSAL entitled  
“AMENDMENTS TO 35 ILL. ADM. CODE 217, NITROGEN OXIDES EMISSIONS.”  
AND APPEARANCES by e-mail upon the following persons at the e-mail address of  
such persons:

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

Office of Legal Services  
Illinois Department of Natural Resources  
One Natural Resources Way  
Springfield, IL 62702-1271  
[renee.snow@illinois.gov](mailto:renee.snow@illinois.gov)

Division Chief of Environmental Enforcement  
Office of the Attorney General  
115 S. LaSalle St.  
Chicago, IL 60603  
[enviro@ilag.gov](mailto:enviro@ilag.gov)

My e-mail address is [gina.roccaforte@illinois.gov](mailto:gina.roccaforte@illinois.gov).

The number of pages in the e-mail transmission is 163.

The e-mail transmission took place before 4:30 p.m. on July 8, 2024.

ILLINOIS ENVIRONMENTAL  
PROTECTION AGENCY,

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

Dated: July 8, 2024

1021 North Grand Avenue East  
Springfield, Illinois 62794-9276  
(217) 782-5544