ILLINOIS POLLUTION CONTROL BOARD
March 20, 2025

IN THE MATTER OF:	)	
	)	
AMENDMENTS TO 35 ILL. ADM. CODE	)	R 25-17
217, NITROGEN OXIDES EMISSIONS	)	(Rulemaking – Air)

Proposed Rule. Second Notice.

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

On July 8, 2024, the Illinois Environmental Protection Agency (IEPA or Illinois EPA or Agency) proposed that the Board revise Part 217 of its air pollution rules, which addresses emission of nitrogen oxides (NO_x) from various source categories in the Chicago and Metro East nonattainment areas (NAAs) for the 2015 8-hour ozone National Ambient Air Quality Standard (NAAQS). Within those source categories, affected emission units include industrial boilers, process heaters, glass melting furnaces, cement kilns, lime kilns, furnaces used in steel making and aluminum making, fossil fuel-fired stationary boilers, stationary reciprocating internal combustion engines, and turbines.

On July 11, 2024, the Board accepted IEPA's proposal for hearing, granted IEPA's motion for expedited review, and submitted the proposal to first-notice publication without commenting on its substantive merits. *See* 48 Ill. Reg. 11469 (Aug. 9, 2024). The Board has now conducted two hearings and received public comment on the proposal. For the reasons below, the Board today submits proposed revisions to Part 217 to second-notice review by the Joint Committee on Administrative Rules (JCAR).

GUIDE TO TODAY'S OPINION AND ORDER

The Board first provides the procedural history of this rulemaking and the background and development of the original proposal submitted by IEPA.

Next, the Board discusses the main disputed issue in this rulemaking and provides its findings. The Board then provides a section-by-section summary of the proposal. These summaries decide any additional issues disputed by participants.

Finally, the Board addresses the technical feasibility and economic reasonableness of its second-notice proposal. After concluding to amend Part 217 of its air pollution rules, the Board directs its Clerk to submit the proposal to JCAR for second-notice review. Following this order, the Board includes its proposed rules.

PROCEDURAL HISTORY

On July 8, 2024, IEPA filed its rulemaking proposal, which included its Statement of Reasons (SR) and Technical Support Document (TSD), its proposed revisions to Part 217 (Prop.

217), a motion for waiver of specified requirements, and a motion for expedited review.

On July 11, 2024, the Board accepted the proposal for hearing and granted the motion for waiver of specified requirements. The Board also granted the motion for expedited review and submitted the proposal to first-notice publication in the *Illinois Register* without commenting on its substantive merits. *See* 48 Ill. Reg. 11469 (Aug. 9, 2024).

Also on July 11, 2024, the Board requested that the Department of Commerce and Economic Opportunity (DCEO) conduct an economic impact study of the proposal by August 26, 2024. *See* 415 ILCS 5/27(b) (2022). In a letter dated August 28, 2024, DCEO respectfully declined the request to perform a study.

On July 30, 2024, the Board's hearing officer issued an order scheduling two hearings, the first on Thursday, September 26, 2024, by videoconference between Edwardsville and Springfield and the second on Thursday, November 21, 2024, by videoconference between Chicago and Springfield.

On August 21, 2024, IEPA pre-filed the testimony of Rory Davis for the first hearing (IEPA Test.).

On September 19, 2024, the Illinois Attorney General's Office (AG) pre-filed questions for the first hearing (AG Questions). Also on September 19, 2024, the Illinois Environmental Regulatory Group (IERG) pre-filed questions (IERG Questions). Also on September 19, 2024, the Board's hearing officer filed an order, attached to which were questions for the Agency, including proposed non-substantive revisions to the first-notice proposal (Board Questions).

On September 26, 2024, the Board held its first hearing by videoconference between Edwardsville and Springfield and received the first hearing transcript (Tr. 1) on October 3, 2024.

On October 18, 2024, IEPA filed its first post-hearing comments, including proposed revisions. PC 1. On October 31, 2024, IEPA filed its second post-hearing comments, including proposed revisions. PC 2.

On November 14, 2024, IERG pre-filed questions for the second hearing (IERG Questions 2). On November 20, 2024, IEPA filed responses to IERG's pre-filed questions (IEPA Resp.), as well as its third post-hearing comments that included proposed revisions (PC 3). On December 16, 2024, IEPA filed a corrected version of the attachment to PC 3. PC 7.

On November 21, 2024, the Board held its second hearing by videoconference between Chicago and Springfield and received the second hearing transcript (Tr. 2) on December 2, 2024.

On December 12, 2024, Ross Hubbard, Senior Environmental Engineer for LyondellBasell (LYB), filed a post-hearing comment regarding Equistar Chemicals, LP (Equistar), in Morris. PC 4.

On December 16, 2024, the Board received post-hearing comments from: Phillips 66

Company (Phillips 66) (PC 5); IERG (PC 6); IEPA (including proposed revisions) (PC 7); and the AG (PC 8). On December 19, 2024, IEPA filed a response to comments from Equistar, Phillips 66, and IERG and proposed additional revisions. PC 9. On December 20, 2024, IERG filed a response to IEPA's December 16 comments. PC 10.

BACKGROUND OF IEPA PROPOSAL

CAA Requirements

Under the Clean Air Act (CAA), the United States Environmental Protection Agency (USEPA) identifies air pollutants that endanger the public health and welfare and formulates NAAQS specifying the maximum permissible concentrations of these pollutants in the ambient air. SR at 3-4, citing 42 USC §§ 7408-7409. Once USEPA establishes NAAQS, individual states submit for USEPA approval State Implementation Plans (SIPs) "that provide for the attainment and maintenance of such standards through control programs directed to sources of the pollutants involved." SR at 3, 6, citing 42 USC § 7410. States with NAAs submit SIPs that include adopting reasonably available control measures (RACM) for stationary sources in all NAAs as expeditiously as possible. SR at 3, 7, citing 42 USC § 7502(c)(1).

One element of RACM is requirements for reasonably available control technology (RACT), which 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." SR at 3, 7, citing 44 Fed. Reg. 53762 (Sept. 17, 1979); TSD at 2.

IERG noted this definition and asked IEPA how it defines "a particular source" as the term is used in the definition. IERG Questions at 1. IEPA stated it is not aware that it has ever attempted to define a "particular source," and that USEPA "could have been referring to individual emission units or an emission source with multiple emission units." Tr. 1 at 15. IERG then asked whether IEPA believes USEPA intended for "particular source" to mean individual emission units or an emission source with multiple emission units. IERG Questions 2 at 1. Referring to previous testimony at the first hearing (Tr. 1 at 15), IEPA believes a "particular source" is a particular "stationary source," such as an individual source with specific emission units, or is a group of sources such as the source categories under Part 217. IEPA Resp. at 1-2.

IERG further asked IEPA how its interpretation of RACT would change if USEPA intended for "particular source" to apply to individual emission units or individual sources. IERG Questions 2 at 1. IEPA stated it does not believe the interpretation would necessarily differ because "while there may be emission rates that are considered RACT for specific types of emission units, generally there has always been flexibility in how a stationary source can comply with RACT rules, given that determination of RACT involves technological feasibility and economic reasonableness." IEPA Resp. at 2.

For areas designated nonattainment for ozone and classified as Moderate or above, states must adopt RACT rules for sources of volatile organic compounds (VOCs). SR at 7-8, citing 42 USC § 7511a(b)(2). A state in which all or part of a Moderate NAA is located must also adopt

RACT for major sources of NO_x. SR at 8, citing 42 USC § 7511a(f); *see* TSD at 1.

"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." TSD at 2. Except as provided otherwise, the CAA defines a "major stationary source" as a "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." SR at 8-9, citing 42 USC § 7602(j). For Serious ozone NAAs, a "major source" or "major stationary source" is "a source that emits, or has the potential to emit, at least 50 tons per year of VOCs [or NO_x]." SR at 9, citing 42 USC § 7511a(c); *see* SR at 13; TSD at 2.

IEPA confirmed that, under Sections 182(b)(2) and (f) of the CAA, SIP RACT provisions "shall apply to major stationary sources of oxides of nitrogen located specifically in a State's nonattainment areas." IERG Questions at 1; Tr. 1 at 15.

IERG asked what specific analysis IEPA performed for major stationary sources of NO_x in the Chicago and Metro East NAAs to conclude that its proposed emission limits are achievable through control techniques that are technically feasible and economically reasonable for "particular sources" in the NAAs." IERG Questions at 1. IEPA referred to the TSD included with the rulemaking proposal, stating it describes the Agency's analyses and reasoning for specific standards and limits. Tr. 1 at 16. IEPA also reached out to potentially affected sources and communicated with sources that indicated a possible need for additional flexibility to comply. *Id.*

IERG asked whether IEPA considered requesting source-specific information before drafting its proposal "to better understand the technical and financial impacts the proposed revisions may have on the potentially affected sources in the Chicago and Metro East NAAs." IERG Questions at 2. IEPA stated it conducted "a thorough analysis of the information available to it about potentially affected sources prior to and during the drafting process for the proposed revisions." Tr. 1 at 17. IEPA also reached out to potentially affected sources and individual sources and continued to discuss potential revisions with them. *Id.*

IERG asked what types of information IEPA used "to understand the technical and financial impacts of the proposed revisions on potentially affected sources in the Chicago and Metro East NAAs." IERG Questions at 2. IEPA stated it used a wide array of available information about these potentially affected sources, including "unit types, historical emissions, historical unit utilizations, unit capacities, [and] emission rates," as well as the references documented in the TSD. Tr. 1 at 17-18.

IEPA stated that its proposal satisfies Illinois' obligation to submit a SIP addressing requirements for major stationary sources of NO_x in NAAs with respect to the 2015 8-hour ozone standard. SR at 11, citing 40 CFR § 51.1312. IEPA added that the proposal also addresses USEPA's Finding of Failure to Submit SIP Revisions, which began deadlines for imposing sanctions. SR at 11, citing 42 USC §§ 7590(a, b), 7410(c). Finally, IEPA stated that its proposal "will proactively address Illinois' obligation to adopt NO_x RACT regulations for major stationary sources of NO_x in ozone nonattainment areas classified as Serious." SR at 11-

12; *see* TSD at 2; IEPA Test. at 2.

8-Hour Ozone NAAQS

In 2015, USEPA revised the primary and secondary NAAQS for ozone to 0.070 part per million. SR at 4, citing 80 Fed. Reg. 65292 (Oct. 26, 2015); TSD at 1. USEPA designated the Chicago and Metro East areas as Marginal nonattainment for the 2015 ozone NAAQS with an attainment date of August 3, 2021. SR at 4, citing 83 Fed. Reg. 25776 (June 4, 2018); TSD at 1.

On October 7, 2022, USEPA determined that these two areas failed to attain the standard by the attainment date. The two areas were reclassified as Moderate nonattainment for the 2015 ozone NAAQS by operation of law. SIP revisions associated with the reclassifications were due to USEPA by January 1, 2023, and the deadline to implement RACT was also January 1, 2023.[1] "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." SR at 4, citing 87 Fed. Reg. 60897 (Oct. 7, 2022); TSD at 1.

IEPA confirmed that the redesignations of the Chicago and Metro East NAAs to Moderate non-attainment for the 2015 ozone standards were based on air monitoring data from the 2018 to 2020 calendar years. IERG Questions at 7; Tr. 1 at 53.

On October 18, 2023, USEPA found that states including Illinois had failed to submit required SIP revisions required by January 1, 2023, for areas that were moderate nonattainment for the 2015 ozone NAAQS. SR at 5, citing 88 Fed. Reg. 71757 (Oct. 18, 2023), effective November 17, 2023. This action triggers deadlines to impose 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 a SIP revision addressing the outstanding requirements. SR at 5.

If USEPA does not affirmatively determine that the state has submitted the complete required SIP for an area within 18 months after the effective date of the finding, then the offset sanction in CAA Section 179(b)(2) applies in the affected NAAs. SR at 5, citing 88 Fed. Reg, 71757 (Oct. 18, 2023). In this case, the effective date of the finding is November 17, 2023, and the Section 179(b)(2) sanctions would apply after May 17, 2025.[2] If USEPA does not affirmatively determine that the state has submitted the complete required SIP within six months after it imposes the offset sanction, then the highway funding sanction under Section 179(b)(1) of the CAA will apply in the affected NAAs. *Id*.

These sanctions will not take effect if, by May 17, 2025, "USEPA affirmatively

[1] The SR and first-notice Board order indicate the deadline was May 1, 2023. However, 87 Fed. Reg. 60897 and 88 Fed. Reg 71757, indicate the deadline was January 1, 2023. As such, this Opinion and Order uses the January date.

[2] The SR indicates the sanctions apply after May 19, 2025, but the request for expedited review states May 17. The Board notes that 18 months from November 17, 2023, is May 17, 2025.

determines that the State has made a complete SIP submittal addressing the deficiency for which the finding was made." *Id*. at 5-6. If Illinois submits the required SIP and USEPA approves it within two years after the effective date of the finding – in this case, by November 17, 2025, "USEPA is not required to promulgate a FIP for the affected nonattainment areas." SR at 6.

IEPA stated that it has reviewed available ozone monitoring data. SR at 6. Based on this review, it 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." SR at 6; *see* IEPA Test. at 2. This reclassification imposes additional obligations, including lowering the major source threshold from 100 tons per year (tpy) to 50 tpy. SR at 6. Because the applicability threshold in the definition of "major source" changes from 100 tpy of NO_x to 50 tons tpy, sources located in the nonattainment area that have "potential to emit" between 50 tpy and 100 tpy will become major sources once reclassification becomes effective." *Id*. IEPA proposed to lower the major source threshold for the Chicago and Metro East NAAs from 100 tpy of NO_x to 50 tpy of NO_x. *Id*.; *see id*. at 13; TSD at 3.

On December 17, 2024, USEPA found that Illinois had failed to attain the 2015 ozone NAAQS, based on 2021-2023 design values, and reclassified the Chicago and Metro East NAAs to Serious nonattainment. PC 9 at 1, citing 89 Fed. Reg. 101901 (Dec. 17, 2024), effective January 16, 2025. These areas are required to attain the 2015 ozone NAAQs as expeditiously as possible but no later than August 3, 2027. *Id*. at 2.

Board NO_x Rules

NO_x and VOCs are ozone precursors, as ground-level ozone forms when NO_x and VOCs react in the atmosphere in the presence of sunlight. SR at 4.

In 2007, 2009, and 2011, the Board amended Part 217 to satisfy the requirement to adopt NO_x RACT under Sections 172 and 182 of the Clean Air Act (CAA). *Id*. at 1, citing Nitrogen Oxides (NO_x) Emissions, Amendments to 35 Ill. Adm. Code 217, R 11-24, 11-26 (consol.); Nitrogen Oxides (NO_x) Emissions From Various Source Categories, Amendments to 35 Ill. Adm. Code Parts 211 and 217, R 08-19; Section 27 Proposed Rules for Nitrogen Oxide (NO_x) Emissions From Stationary Reciprocating Internal Combustion Engines and Turbines: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R 07-19; Fast-Track Rules Under Nitrogen Oxide (NO_x) SIP Call Phase II: Amendments to 35 Ill. Adm. Code Section 201.146, Parts 211 and 217, R 07-18; *see* TSD at 1.

In R 07-18, IEPA filed its proposed Subpart Q of Part 217 under the "fast-track" rulemaking procedures of Section 28.5 of the Act (415 ILCS 5/28.5 (2022)). SR at 2, n.1. The Board determined that IEPA's entire proposal was not "required to be adopted by the State" under the CAA as required by Section 28.5. *Id*., citing Fast-Track Rules Under Nitrogen Oxide (NO_x) SIP Call Phase II: Amendments to 35 Ill. Adm. Code Section 201.146, Parts 211 and 217, R 07-18 (May 17, 2007). The Board bifurcated the proposal and considered under "fast-track" procedures only the proposal applicable to 28 internal combustion engines affected by the NO_x SIP Call Phase II. SR at 2, n.1. The Board adopted rules in R 07-18 on September 20, 2007.

In a new docket R 07-19, the Board considered the remainder of IEPA's proposal under the general rulemaking procedures of the Act and adopted rules in 2009. Section 27 Proposed Rules for Nitrogen Oxide (NO_x) Emissions From Stationary Reciprocating Internal Combustion Engines and Turbines: Amendments to 35 Ill. Adm. Code Parts 211 and 217, R 07-19 (July 23, 2009).

In 2009, USEPA approved the rules adopted in R 07-18 as Subpart Q to incorporate into the Illinois SIP. SR at 2, n.1, citing 74 Fed. Reg. 30466 (June 26, 2009); *see* TSD at 1, 3.

Also in 2009, the Board adopted Subparts D, E, F, G, H, I, and M. SR at 2, n.1, citing Nitrogen Oxides (NO_x) Emissions From Various Source Categories, Amendments to 35 Ill. Adm. Code Parts 211 and 217, R 08-19. The Board amended those Subparts in 2011. SR at 2, n.1, citing Nitrogen Oxides (NO_x) Emissions, Amendments to 35 Ill. Adm. Code 217, R 11-24, 11-26 (consol.).

"On September 1 and 2, 2009, and supplemented on October 8, 2009, the Illinois EPA submitted the amendment to Subpart Q docketed as R 07-19 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_x RACT requirements under the CAA." SR at 2, n.1. In 2011, IEPA withdrew its submission after USEPA identified certain deficiencies. SR at 2, n.1. (citation omitted); *see* TSD at 1, 3.

IEPA confirmed it became aware of the NO_x RACT SIP submittal deficiencies as early as 2011 and then withdrew the submittals. IERG Questions at 7; Tr. 1 at 53. IEPA does not know if other states such as Ohio or Wisconsin have received similar deficiency letters. Tr. 1 at 60-61.

IEPA stated that its current proposal "corrects those deficiencies as well as others identified by USEPA and adds additional new provisions." SR at 2, n.1. IEPA added that the proposal intends "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_x in areas designated as nonattainment with respect to a NAAQS." SR at 2-3, citing 42 USC §§ 7502, 7511a; *see* IEPA Test. at 2.

Deficiencies in Current NO_x RACT Rules Identified by USEPA

IEPA stated that USEPA identified deficiencies in 35 Ill. Adm. Code 217. SR at 2, n.1, 9; *see* TSD at 3. USEPA indicated that an emissions averaging plan (EAP) is a type of Economic Incentive Program (EIP) addressed by USEPA guidance on emission trading programs. SR at 9, citing Improving Air Quality with Economic Incentive Programs, EPA-452/R-01-001 (Jan. 2001) (EIP Guidance).[3] First, USEPA noted that "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." SR at 9; *see* IEPA Test. at 2. USEPA also noted that "EIPs for VOC or NO_x sources controlled for purposes of attaining the ozone standard cannot allow averaging times longer than 30 days." SR at 9; *see* TSD at 3; IEPA Test. at 2.

[3] Publicly available at https://www.epa.gov/sites/default/files/2015-07/documents/eipfin.pdf.

USEPA also identified changes to 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_x allowances." SR at 9; *see* SR at 13; TSD at 3. These changes included "the prohibition on the use of NO_x allowances to offset excess emissions within a NAA where such allowances were generated outside of a NAA." *Id*. at 9-10. IEPA stated that its proposal "has attempted to remedy these issues." SR at 10; *see* TSD at 1, 3.

IEPA added that USEPA reviewed its draft proposal and recommended "changes to some of the applicability thresholds and emission limitations and concentrations for various emission units based on other states' RACT assessments." SR at 10, citing TSD; *see* IEPA Test. at 2.

The AG noted IEPA's statements in the TSD that its proposal intends to satisfy Illinois' SIP obligations and modify SIP submissions that were not approvable. AG Questions at 1, citing TSD at 1, 3. The AG questioned whether the proposed changes to Part 217 "satisfy SIP obligations in other ways that are not specified in the TSD," and how those provisions would operate. AG Questions at 1. IEPA referred to USEPA's previous comments on EIPs and recordkeeping and reporting requirements. Tr. 1 at 8-10.

Good Neighbor Federal Implementation Plan

In 2023, USEPA promulgated the federal "Good Neighbor Plan" for the 2015 Ozone NAAQS, effective August 4, 2023. TSD at 5, citing 88 Fed. Reg. 36654 (June 5, 2023). IEPA stated that the FIP "requires emissions reductions, including NO_x, 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 those source categories to other 'downwind' states." TSD at 5. IEPA reported that the FIP also includes "NO_x emission limits for non-EGU categories of emission units with a specific design rating or NO_x 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." *Id*. For these source categories that are included in its proposal, IEPA "considered the source category-specific non-EGU NO_x limits in the Good Neighbor FIP in the development and justification of the proposed Part 217 RACT limits." *Id*.; *see* SR at 10.

IEPA cited the Good Neighbor FIP and asserted that, for most non-EGU industries, USEPA "is not mandating a specific control technology and is instead establishing numeric emission limits that are uniform across the region and that allow sources to choose how to comply." TSD at 5, citing 88 Fed. Reg. 36654 (June 5, 2023). IEPA argued that USEPA's analysis, "including review of RACT determinations, consent decrees, and permitting actions, shows that these emission limits and control technologies are achievable by existing units in the non-EGU industries covered by this final rule." TSD at 5, citing 88 Fed. Reg. 36683 (June 5, 2023). IEPA also cited USEPA to assert that

> the types and sizes of the EGU and non-EGU sources that the EPA incudes 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 on NO_x in downwind Moderate nonattainment areas and some upwind areas, which many states have already implemented in their SIPs. TSD at 5, citing 88 Fed. Reg. 36756 (June 5, 2023).

For reasons cited by USEPA, IEPA considers the "Good Neighbor FIP source category-specific non-EGU NO_x emission limits to be appropriate benchmarks for comparison and evaluation of the proposed Part 217 RACT limits." TSD at 5.

IEPA noted that the U.S. Supreme Court recently granted a stay of the Good Neighbor FIP requested by several of the entities that had challenged it in the D.C. Circuit Court of Appeals. SR at 10, n.2. The stay halts "enforcement of the FIP against the applicants for a stay pending the disposition of the applicants' petition for review in the D.C. Circuit." *Id*., citing Ohio v. EPA, 2024 U.S. Lexis 2846 (2024).

The AG asked IEPA whether anything in the U.S. Supreme Court's decision, any other court ruling concerning the Good Neighbor Plan, or any USEPA Good Neighbor regulation does anything to reduce the Board's authority to adopt air pollution regulations in Illinois that are more stringent than the minimum requirements set by USEPA. AG Questions at 2-3. IEPA stated "[n]ot to the Agency's knowledge." Tr. 1 at 14.

IEPA stated that "the State of Illinois is not a party to the underlying litigation and did not seek or receive a stay." SR at 10, n.2. IEPA further argued that USEPA's technical analysis of control technologies in the FIP "remains sound." *Id*.

The AG noted IEPA's statement that Illinois "is not a party" and asked whether this statement reflects "that the Illinois Attorney General's Office is representing the State of Illinois before the U.S. Court of Appeals for the D.C. Circuit, the Supreme Court of the United States, other federal courts, and in regulatory proceedings related to the Good Neighbor Federal Implementation Plan." AG Questions at 2. IEPA conceded the statement was ambiguous and should have indicated simply that the State did not seek or receive a stay. Tr. 1 at 13.

The AG also noted that on August 5, 2024, USEPA "issued a memorandum outlining how it intends to comply with the U.S. Supreme Court's order staying the Good Neighbor Plan pending completion of judicial review." AG Questions at 2 (citation omitted). The AG asked whether anything in this memorandum affects IEPA's rulemaking proposal in this docket. *Id*. IEPA asserted that nothing in the memorandum impacts the Agency's proposed regulations. Tr. 1 at 13. IEPA "only considered some limits that were included in the Good Neighbor Plan to assess what may be considered RACT for some categories of units." *Id*.

Projected Environmental Impact of Proposal

IEPA stated that its proposal intends to meet the federal requirement for NO_x RACT to be submitted as an element of a Moderate NAA attainment demonstration. TSD at 3. While IEPA expects NO_x emissions reductions to result from its proposal, it has not quantified the expected reductions. It argued that this "would require additional data and source-specific information

regarding compliance options" and that the analysis is not now necessary. *Id*.

The Board asked whether it would be possible for IEPA to nevertheless provide an estimate of emissions reduction that would be achieved by implementing the proposed amendments compared to existing requirements. Board Questions at 8. IEPA stated it may be able to evaluate what potential compliance options are available or likely at a given source, but "an attempt to aggregate estimates of actual emission reductions from all of the potential subject sources would involve a high degree of uncertainty" because "the proposed rules contain a number of compliance flexibilities and options for sources to limit source-wide and unit-specific emissions below those applicability thresholds." Tr. 1 at 74.

The Board also asked whether an attainment demonstration or another part of the SIP will require modeling that will include reductions. Tr. 1 at 74-75. IEPA stated that quantification of the emission reductions will not be necessary in any modeling. *Id*. at 75.

IEPA expects that the potential emission reductions will occur primarily from four changes. First, the proposal will increase the number of sources with units that will be subject to emission limits in Subparts D through Q by lowering the source applicability threshold from 100 tpy to 50 tpy. TSD at 3. IEPA asserted that it is difficult to project the number of sources that would become subject to these limits because sources "may opt to limit their emissions below that threshold in the future and thus avoid applicability of the Part 217 limits." *Id*. at 4. IEPA also asserted that it is similarly difficult to quantify emissions reductions at newly subject sources because those sources may limit emissions or the use of specific units to avoid the applicability of Part 217. *Id*. IEPA also acknowledged that "many units at newly subject sources may already be meeting the Part 217 limits." *Id*. IEPA concluded that, "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." *Id*. (emphasis in original).

Second, the proposal will reduce "the applicability threshold for the heat input capacity of boiler and process heater units in Subparts E and F." TSD at 3. IEPA asserted that "actual and allowable emission reductions are likely, but difficult to quantify." *Id*. at 4. "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." *Id*.

Third, the proposal will reduce emission limits for turbine units under Subpart Q. TSD at 3. IEPA argued that it is difficult to quantify emissions reductions that may result from this proposed change. IEPA expects that "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." *Id*. at 4.

Fourth, the proposal adds a "10 percent environmental benefit in the emissions averaging calculation procedures in Subparts D and Q." TSD at 3. IEPA asserted that, for sources complying through an averaging plan, it expects reductions in allowable emissions and also possible reductions in actual emissions at those sources. *Id*. at 4. From sources IEPA has

identified as using an averaging plan, annual allowable NO_x emissions are approximately 2,300 tpy, and actual emissions are approximately 1,700 tpy. *Id*. IEPA added that, "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." *Id*.

The AG asked IEPA what environmental justice (EJ) considerations it accounted for when designing the new regulations. AG Questions at 2. IEPA acknowledged that the areas affected by the proposed rules overlap with areas of potential EJ concern, as confirmed by data retrieved from its EJ Start mapping tool. PC 1 at 3. IEPA conducted outreach before filing the proposed rules and with the participation of EJ organization. *Id*. IEPA further asserted that it strongly supports the concept of EJ and has implemented an Environmental Justice Policy to address issues. *Id*. at 2-3.

The AG noted that both NAAs contain EJ areas, as well as areas "significantly overburdened with pollution caused by NO_x emissions." PC 8 at 2. As examples, the AG cited: the high rates of inpatient hospitalization for asthma in Chicago and southern Cook County; the fact that St. Clair and McHenry Counties have the highest asthma rates in Illinois; and the disproportionate impact of asthma on Black Illinoisians. *Id*. The AG believes adopting the proposed rules is important for both compliance with USEPA's attainment goals and quality of life for residents in EJ areas. *Id*.

The Board asked how plant-wide applicability limitations (PAL) in the Part 203 Nonattainment New Source Review rules may affect an existing source's compliance with the proposed NO_x RACT rules. Tr. 2 at 32-33; *see also* Amendments to 35 Ill. Adm. Code Part 203: Major Stationary Sources Construction and Modification, 35 Ill. Adm. Code Part 204: Prevention of Significant Deterioration, And Part 232: Toxic Air Contaminants, R22-17. IEPA stated that the limits in federally enforceable permits could be used to demonstrate that source-wide emissions are under 50 tpy, unless the source is in the "once-in always-in" section of NO_x RACT applicability. Tr. 2 at 33; *see also infra* at 22. Alternatively, IEPA believes a federally enforceable permit could demonstrate that a specific limit in Part 217 does not apply to a specific unit because the source has taken a limit under an applicability threshold. *Id*. at 33-34. IEPA would need to assess the interactions between NO_x RACT requirements and PAL provisions if an existing source requested PAL. PC 7 at 6.

IEPA also addressed the environmental impact of its proposed revisions. PC 3 at 11-15. IEPA stated it did not anticipate significant NO_x emission impacts by allowing industrial boilers to use alternative fuel during testing and curtailment. *Id*. at 11. As to the daily emissions cap for maintenance turnaround (TA) periods, IEPA asserted that TAs are infrequent, source-wide emissions during TAs are lower, and sources are limited to 45 days of complying with the cap. *Id*. at 14. As to the compliance date extensions in APPENDIX I, Section 217.158(m), and Section 217.152(f), IEPA expects significant emissions reductions after the Part 217 amendments are fully implemented. Specifically, IEPA anticipates at least the following annual NO_x reductions: 200 tpy from Phillips 66; 40 tpy from CITGO; 90 tpy from ExxonMobil, 9 tpy from Abbott Laboratories, and 14 tpy from Abbvie. *Id*. at 11-15. These reductions will come primarily from the 10% reduction for sources using EAPs, plus from newly subject sources and units. *Id*.

IEPA's Communication with Interested Entities

IEPA reported that in February 2024 it shared draft proposed rules with potentially affected sources, environmental groups, industry organizations, environmental justice organizations, and persons who have requested notice of these issues. SR at 15. Also in February 2024, IEPA posted the draft proposal on its website. *Id*. IEPA held discussions "at the request of groups and companies affected by the proposal." SR at 15; *see* IEPA Test. at 2.

IEPA received extensive comments on its proposal. SR at 15. IEPA reported that these comments generally addressed "applicability, applicability thresholds, compliance date, compliance averaging times, emission averaging plans, exemptions, testing and monitoring, and emissions limitations and concentrations." *Id*. The proposal submitted to the Board "incorporates many of the concerns and suggestions put forth in these comments." *Id*.

IERG asked IEPA what factors led it to propose the NO_x RACT revisions in 2024 and not earlier. IERG Questions at 7. IEPA stated that it had been working on a proposal for several years, but it was delayed because of factors including "staff attrition, available resources, and other state implementation planning requirements in recent years." Tr. 1 at 53. Additionally, during certain periods, "the Agency had NO_x RACT waivers that temporarily eliminated the requirement to submit NO_x RACT provisions." *Id*.

IERG also asked IEPA whether it can guide and assure regulated entities about timely considering and proposing future federally required rules. IERG Questions at 7. IEPA asserted that it is committed to timely outreach and cooperation with all stakeholders, including the regulated community, for federally required rulemakings. Tr. 1 at 54. IEPA further noted that the current proposal "lowers the applicability threshold to help ensure future Clean Air Act requirements for serious nonattainment areas are met in a timely manner." *Id*.

IERG asked IEPA whether, before filing its rulemaking proposal, it reviewed "information regarding potentially affected sources that contradicts the Agency's determination that the proposed emission limits are achievable by control techniques that are technically feasible and economically reasonable for 'particular source[s]' in the Chicago and Metro East NAAs." IERG Questions at 2. IEPA stated it was communicating with individual sources that have indicated the proposed revisions could pose compliance challenges. Tr. 1 at 18-19. IEPA further asserted it amended the proposed revisions in response to information received during its outreach. *Id*. at 19.

IERG also asked IEPA whether, since filing the rulemaking proposal, it reviewed any similar information. IERG Questions at 2. IEPA stated it was communicating with sources and would continue to consider additional potential revisions. Tr. 1 at 19.

IERG asked IEPA how it determined RACT for "particular sources" in the Chicago and Metro East NAAs. IERG Questions at 2. IEPA asserted that it has not changed its position on what constitutes RACT for particular sources, namely "the definition of RACT" and what is "[r]easonably achievable." Tr. 1 at 19-20.

IERG asked IEPA what "number of sources or what percentage or what quantity of sources would the Agency need to analyze in order to determine that the NO_x requirements are too stringent," or that the NO_x RACT is not actually RACT for major stationary sources in the Chicago and Metro East NAAs. Tr. 1 at 58-59. IEPA stated that there was not a proportion or number of sources where the Agency would reconsider what it believes to be RACT. *Id*. at 59. Additionally, the Agency does not want to revise the proposed general compliance date because USEPA will not be able to review the SIP submittal until the rulemaking proposal is passed. *Id*.

IERG also asked IEPA whether it had reached out to potentially affected sources "with the potential to emit 15 tons per year but historically have had actual emissions less than 10 tons per year." Tr. 1 at 66. IEPA conceded that it likely has not reached out to these sources on a source-specific basis. *Id*.

SIP Submission

If the Board adopts its proposal, IEPA "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." TSD at 18. IEPA reported that it has frequently communicated with USEPA staff "to ensure that adopted revisions will be approved when submitted as a SIP revision." IEPA Test. at 2; *see* TSD at 18.

IEPA cited Section 110(l) of the CAA, which provides in part that the USEPA Administrator "shall not approve a revision of a plan if the revision would interfere with any applicable requirements concerning attainment and reasonable further progress . . . or any other applicable requirement of this Act." TSD at 18. IEPA concluded that its proposed amendments to Part 217 "will not lead to an increase in the emissions of any pollutant in Illinois." *Id*. It argued that the proposal "will not interfere with any applicable requirements concerning attainment and reasonable further progress, or any other applicable requirement of the CAA." *Id*.

DISPUTES OVER EMISSIONS AVERAGING PLAN PROVISIONS

Under Part 217, affected sources are required to comply with applicable emissions limitations, but they may elect to meet those limitations using an EAP. PC 7 at 2. As described above, USEPA views an EAP as a type of EIP and thus subject to its 2001 EIP Guidance. SR at 9. An EIP is a program that may include State established measures directed toward stationary, area, and/or mobile sources, to achieve emissions reductions milestones, to attain and maintain ambient air quality standards, and/or to provide more flexible, lower-cost approaches to meeting environmental goals. PC 7 at 2-3, citing EIP Guidance at 164. Per USEPA Guidance, all EIPs must demonstrate environmental benefit. PC 7 at 3, citing EIP Guidance at 51.

Based on conversations with USEPA, IEPA believes the EIP Guidance requires a 10% extra reduction in emissions when the NAA does not have an approvable attainment demonstration. IEPA Resp. at 5; PC 7 at 3. Because EAPs are elective, sources displeased with the 10% reduction requirement may instead comply with the emissions limitations on a unit-by-unit basis without using an EAP. PC 7 at 3.

The 10% write-off – also referred to as a benefit, an emissions reduction, an environmental factor, or some variation of these terms – generated significant discussion between IERG and IEPA during these proceedings. To ensure clarity throughout this Opinion and Order, the Board refers to this term as a 10% reduction. Below, the Board summarizes the arguments for and against the reduction and provides its findings.

As an initial matter, IERG asked IEPA why the Illinois EAP is classified as an EIP instead of a NO_x SIP averaging plan authorized under USEPA ozone implementation requirements. Tr. 2 at 15. IERG cited the preamble to 83 FR 62988 (Dec. 6, 2018), which states in part: "This policy recognizes that states may demonstrate as part of their NO_x RACT SIP submission that the weighted average NO_x emission rate of all sources in the nonattainment area subject to RACT meets NO_x RACT requirements. Thus, states are not required to demonstrate RACT level controls on a source-by-source basis." *Id*. at 17. IEPA believes the Illinois EAP is an EIP because it is not part of an area-wide NO_x RACT plan and applies to units that have specific emission limits. *Id*. at 18. Additionally, the weighted average demonstration is permissive, not mandatory, but the EIP Guidance would still apply and require the 10% reduction. PC 7 at 4-5.

IEPA is submitting its EAP as a discretionary EIP for SIP revision and USEPA approval, rather than a pre-existing EIP built into the Illinois NO_x RACT regulation. IERG Questions 2 at 3; IEPA Resp. at 5.

USEPA Guidance on EIPs

USEPA's 1994 Economic Incentive Programs Rule (EIP Rule) at 40 CFR 51, Subpart U, addresses "statutory economic incentive programs," meaning EIPs submitted to comply with CAA Sections 182(g)(3), 182(g)(5), 187(d)(3), or 187(d). 40 CFR 51.490(a). The rule also serves as USEPA's policy guidance on discretionary EIPs submitted as SIP revisions for any purpose other than the statutory requirements. 40 CFR 51.490(b). IEPA confirmed that its NO_x RACT SIP (which includes EAP provisions) is not being submitted as a statutory program under 40 CFR 51.490(a). IEPA Resp. at 7-8.

In 2001, USEPA released the EIP Guidance, which indicates that it supersedes the guidance for developing discretionary EIPs in the 1994 EIP Rule. IEPA Resp. at 8. Section 1.5 of the EIP Guidance states that USEPA will remove the discretionary EIP provision in 40 CFR 51.490(b) when the final version of the guidance is published. *Id*. To date, the guidance and federal rules have not been finalized. *Id*. Additionally, the EIP Guidance indicates that it does not represent USEPA's final action on discretionary EIPs, and that the guidance is non-binding policy for discretionary EIPs. IEPA Resp. at 8.

To the Agency's best knowledge, the EIP Guidance was never published in the Federal Register. IERG Questions 2 at 3; IEPA Resp. at 6. The AG asked whether the EIP Guidance is a "general statement of policy" to which Federal Register publication and other notice requirements do not apply, as described in the Administrative Procedure Act. Tr. 2 at 26-27. IEPA believes this is partly correct and notes it has been previously advised by other guidance documents that USEPA did not finalize. *Id*. at 27.

IERG argues the 1994 EIP Rule should apply, rather than the EIP Guidance, because the two are inconsistent with each other. PC 10 at 4.

10% Reduction Requirements

IEPA confirmed that USEPA indicated it will not approve the Agency's NO_x RACT SIP submittal without the 10% reduction for EAPs. IEPA Resp. at 4; PC 7 at 4. IEPA further cited the 2001 EIP Guidance, as well as USEPA's 2011 feedback letter for the 2009 NO_x RACT SIP submittal, wherein USEPA stated EAP requirements must meet certain EIP requirements. IEPA Resp. at 4; SR at 2. USEPA noted the following shortfalls:

> (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 volatile organic compounds or NO_x sources controlled for purposes of attaining the ozone standard cannot allow averaging times longer than 30 days. IEPA Resp. at 4.

In response to IERG's question, IEPA stated it did not evaluate how the results of the Presidential election and a potential change in the USEPA administration could impact USEPA's position on including a 10% reduction. IEPA Resp. at 11.

IERG also asked IEPA whether the 10% reduction applies to intra-site averaging, inter-site averaging, or both. IERG Questions at 5. IEPA asserted that, according to draft USEPA guidance with which IEPA agrees, the 10% reduction is required for both types of averaging plans. Tr. 1 at 42.

IERG questioned why IEPA did not propose the 10% benefit in the 2009 NO_x RACT rulemaking, if the EIP Guidance was clear about requiring it. Tr. 2 at 20-21. IEPA is not certain why the benefit was not included. *Id*. at 21.

IERG also questioned whether the 1994 EIP Rule requires or suggests a 10% reduction outside of trading with non-RACT sources. IERG Questions 2 at 5. IEPA stated that the EIP Rule does not specifically refer to a 10% reduction, but the Agency is adhering to the EIP Guidance and USEPA's advice on SIP approvability. IEPA Resp. at 11.

IERG asked which CAA provisions or implementing guidelines require the 10% reduction. IERG Questions 2 at 3. IEPA stated the reduction is not explicitly required, but similarly Part 217 contains many provisions that are considered RACT but not explicitly required by the CAA, such as compliance on a 30-day rolling average basis. IEPA Resp. at 6. The CAA requires each SIP to include enforceable emission limitations and other control measures, means, or techniques, including economic incentives. *Id*., citing 42 USC § 7410(a)(2)(A).

IERG asked where the authority for the 10% reduction is found, other than non-binding USEPA guidance. IERG Questions 2 at 3. IEPA asserted the authority does not come from any

guidance; rather, the Agency "is required to and has the authority to propose RACT regulations to meet CAA requirements for SIPs, as stated above, and has authority to include in its proposal provisions that may provide environmental benefit." IEPA Resp. at 7. The Board in turn has the authority to adopt the Agency's proposal. *Id*. IEPA further asserted that including the 10% reduction will help ensure the SIP submittal is approved by USEPA and will provide environmental benefit to NAAs. *Id*.

The AG noted the following language in the EIP Guidance: "On page 86 of that guidance USEPA states that 'all EIPs must provide an environmental benefit.' On page 12 of its guidance USEPA states that by using the term 'must,' it indicates that SIP submittals containing those elements are approvable because the SIP provision does not interfere with any applicable requirement concerning attainment, reasonable further progress, or any other applicable requirement as stated by Section 110L of the Clean Air Act." Tr. 2 at 25. The AG asked whether these statements are consistent with USEPA's approach when discussing the Illinois EIP provisions for this rulemaking. *Id*. IEPA believes this is correct, and that USEPA expects lower total emissions or an environmental benefit for offering an EIP, if the averaging plan includes a source or number of sources. *Id*. at 26.

Ultimately, IERG argues there is no authority for the 10% reduction as proposed by IEPA. PC 10 at 4. For example, the EIP Rule addresses only RACT/non-RACT trading, while the proposed Part 217 allows only RACT/RACT averaging. *Id*. IERG believes USEPA is not entitled to deference on this matter, has not been consistently applying its own guidance, and is attempting to enforce the guidance as an adopted rule. *Id*. at 5.

Alternatives to the 10% Reduction

IERG asked IEPA to detail what alternatives, other than a 10% reduction, it evaluated to satisfy the need for the NO_x RACT SIP to include an environmental benefit. IERG Questions 2 at 5. IEPA offered that one alternative is for all units at a source to comply with emission limits rather than an EAP. IEPA Resp. at 10. The EIP Guidance includes other options for states to consider, but "generally all those options require that total emissions at a source be less than what would be expected if a source was to be able to simply average all emissions from a group of emission units." *Id*.

IEPA also discussed an emissions cap alternative with affected sources, but the sources were not amenable to that approach as set forth in the EIP Guidance. *Id*. IERG asked whether sources did not accept the cap because of the required 10% reduction. Tr. 2 at 10. IEPA stated the proposed emissions cap was not in line with the EIP Guidance and may have been even more restrictive than adding the 10% reduction to the current EAP requirements. *Id*. at 10-11. IEPA later received proposed revisions for emission caps during maintenance TA periods and included certain revisions with its Second Post-Hearing Comments. IEPA Resp. at 11; PC 2.

IEPA emphasized it will not consider NO_x RACT averaging without the 10% reduction, based on USEPA's pre-rulemaking feedback and ongoing requirements. IERG Questions at 5; IEPA Resp. at 10.

Other States' SIPs

IERG asked which NO_x RACT rules and EAPs of other states IEPA reviewed when preparing its rulemaking proposal, and which states include the 10% reduction in their EAPs. IERG Questions at 5. IEPA stated it reviewed NO_x RACT rules from Ohio and Wisconsin, plus the averaging plan provisions from Ohio, Wisconsin, Michigan, and others, but possibly not Pennsylvania. Tr. 1 at 43; Tr. 2 at 19. IEPA did not consult other states about the technical feasibility and economic reasonableness of requiring the 10% reduction. IEPA Resp. at 6.

As to Ohio, IEPA stated that although Ohio's regulations do not currently include the 10% reduction, Ohio requires EAPs to receive SIP approval, which in turn gives USEPA authority to ensure Ohio's EAPs comport with the EIP. IEPA Resp. at 5. Additionally, "USEPA Region 5 has indicated that it will not be approving emissions averaging plans from Ohio that don't include a 10% environmental benefit." Tr. 1 at 43. USEPA informed IEPA that it was acceptable to adopt Ohio's approach of submitting EAPs to USEPA for approval into the SIP, but that it would be more transparent to include the 10% reduction in the rule itself. IEPA Resp. at 5. In the context of applying non-binding guidance, the AG asked whether USEPA's approval of Ohio's averaging plans is a binding final action. Tr. 2 at 27-28. IEPA stated that approvals would be considered a final USEPA action when they are published in the Federal Register. *Id*. at 28.

Wisconsin includes a 10% reduction for inter-source (or multi-facility) averaging plans but not single-source averaging plans. Tr. 1 at 43. USEPA Region 5 informed IEPA that Wisconsin's NO_x RACT rules must include that reduction to comport with the EIP and be approved for the 2015 ozone standard. Tr. 1 at 43; IEPA Resp. at 5. IEPA believes Wisconsin is subject to the same timing as Illinois for its SIP deficiencies, but the Agency is not aware of any related rulemakings initiated there. Tr. 2 at 12.

IERG also asked whether any Region 5 states have received NO_x RACT SIP approvals that IEPA has reviewed. *Id*. at 20. IEPA stated Indiana and Wisconsin have not received approval, and that USEPA advised IEPA of certain deficiencies in Wisconsin's submittal, as noted above. *Id*. Finally, IERG asked whether IEPA believes the 10% reduction has been applied consistently in SIPs approved since the EIP Guidance was issued in 2001. IERG Questions at 5. IEPA believes it may not have been in the past, but it will be going forward. Tr. 1 at 44.

IEPA noted that USEPA approved source-specific, case-by-case RACT determinations or alternative NO_x limits for 23 major sources within Pennsylvania. PC 7 at 5. However, each state's environmental protection department controls what to propose for SIP inclusion, and IEPA declined to include case-by-case RACT determinations. *Id*. IERG in turn noted that Pennsylvania's SIP did not include a 10% reduction. PC 10 at 3.

Technical Demonstrations

IERG asked IEPA to explain the necessity of the 10% reduction to demonstrate attainment. IERG Questions 2 at 4. IEPA stated it did not specifically evaluate the reduction in

this manner. IEPA Resp. at 9. Rather, USEPA was expected to reclassify both NAAs to Serious, and IEPA's analysis indicated that "any reductions resulting from the proposed rules including the environmental benefit factor, along with significant additional reductions from other measures, will be necessary to bring the NAAs into attainment." *Id*.

IERG is concerned that industries will bear the burden of a 10% reduction because IEPA did not file a timely attainment demonstration, and thus the EIP requires the reduction. Tr. 2 at 12-13. IEPA asserted this is not accurate because the 10% reduction would have always been part of the SIP submission to meet NO_x RACT requirements, even if the Moderate attainment demonstration had been timely submitted. Tr. 2 at 13-14; PC 7 at 4.

IERG asked whether IEPA performed modeling that included the 10% reduction to show it was necessary for attainment. Tr. 2 at 6. IEPA stated it did not perform this type of modeling. *Id*. at 7. The most recent modeling was completed around 2021 or 2022 (when the affected areas were still classified as Moderate nonattainment) and used 2023 as the projected year. *Id*. at 7-8. Thus, it did not include the emission reductions expected from this rulemaking. *Id*. at 8. IEPA emphasized that the relevant question is not whether the 10% reduction is required for attainment, but whether it is required as RACT – which IEPA and USEPA believe it is. *Id*. at 9. IEPA is currently creating a modeling platform to prepare for the Serious attainment demonstrations. *Id*. at 9-10. IERG also asked IEPA to explain how the Agency and USEPA believe the 10% reduction is required as RACT without any modeling or technical analysis. *Id*. at 14. IEPA stated this is "the interpretation of USEPA as to what constitutes adequate RACT rules," similar to specific limits or averaging periods. *Id*. at 14-15. IEPA also referred to the 2001 EIP Guidance. *Id*.

IERG then asked IEPA to reconcile the two statements made above: that the 10% reduction was not the result of lacking an approvable attainment demonstration, versus the 10% reduction being required by an EIP because the NAA does not have an approvable attainment demonstration. *Id*. at 21-22. IEPA stated that the attainment demonstration it will be submitting will likely not be acted upon because the NAAs did not attain the standard. *Id*. at 22-23. IEPA reiterated that USEPA is expecting the 10% reduction to be in EAPs, and that the Agency believes USEPA views the reduction as RACT for EAPs. *Id*. at 23. IEPA confirmed that it may have a different interpretation from USEPA of what constitutes RACT. *Id*. at 24.

IERG noted the lack of emission inventory analysis and attainment modeling and emphasized the need for public participation on the Agency's technical analysis and justifications, especially since the proposed rules are based on a Serious nonattainment reclassification. PC 6 at 3-4. In response, IEPA noted that the Moderate nonattainment modeling has been available for some time and was publicly noticed in November 2024 with the Agency's attainment demonstrations. PC 9 at 3.

IEPA ultimately acknowledges that the current Part 217 regulations, along with other regulatory measures, were not sufficient to attain the NAAQS while the NAAs were classified as Moderate. *Id*. at 4. As such, additional emissions reductions will be required. *Id*. However, IEPA asserts that the purpose of this rulemaking is to adopt technology-based RACT standards, not make an attainment demonstration. *Id*. The Agency drafted standards to meet RACT

requirements for Moderate nonattainment with applicability thresholds for Serious nonattainment, and sought to ensure the proposed standards would be technically and economically feasible. *Id*. at 5.

IERG argues that what the Agency is proposing is not simply a technology-based emission standard or specified control requirement. PC 10 at 8. Rather, IEPA is proposing an emission standard plus an extra 10% reduction without technical or economic justification. *Id*.

Board's Findings and Conclusions

The Board agrees with IERG that the EIP Guidance is nonbinding, and it indicates that USEPA will still use notice-and-comment rulemaking to review EIPs that do not incorporate the suggested elements. EIP Guidance at 12-13. However, guidance still helps IEPA, the Board, and other entities determine what factors to include to achieve pollution reduction goals. In this case, the Board is not persuaded it should disregard the EIP Guidance in developing RACT rules, when the Board has previously relied on USEPA guidance documents in developing numerous air pollution control regulations. In this matter, the Board is not merely adopting the 10% reduction as a requirement because it is in the guidance. Rather, the Board has noticed the 10% reduction provisions, received testimony and comments, and now finds that the record supports adopting the 10% reduction.

IEPA has asserted throughout this rulemaking that USEPA will not approve the NO_x RACT SIP without the 10% reduction. IEPA has further emphasized that if USEPA does not approve the SIP submittal, the highway funding sanction will apply in the affected NAAs, and USEPA will be required to promulgate a FIP in those areas. As IEPA noted, there is no utility in the Board adopting rules that will not receive SIP approval.

The Board is also mindful of direction from the Illinois legislature to consider EJ implications. Both NAAs contain EJ communities that will benefit from the proposed emission reductions – even more so with the 10% reduction. This reduction is especially crucial now that both areas have been reclassified as Serious nonattainment.

IERG has not argued that the additional 10% reduction is in fact technically infeasible or economically unreasonable. Rather, IERG argues that IEPA has not met its burden because of the lack of modeling. However, IEPA intends to include the emission impacts from the proposed RACT standards in future attainment modeling (PC 9 at 5), and thus the Board is satisfied on this point.

While the Board understands IERG's concerns about the need for public participation, the Board finds that there was adequate opportunity to engage with IEPA during this rulemaking. As IEPA stated multiple times during the hearings and in its post-hearing comments, the Agency was open to receiving suggested language from affected sources. Indeed, IEPA incorporated many of these suggestions into its proposed revisions – most of them without objection from IERG and affected sources. Proposed EAP revisions include delayed compliance dates, maintenance TA provisions, alternative emissions calculations, and updated applicability thresholds. Furthermore, EAPs are not mandatory; affected sources are still free to comply with

the emission limitations on a unit-by-unit basis.

Finally, affected sources needing further compliance flexibility for the 10% reduction may request an adjusted standard or a variance under the Board's rules. *See* 35 Ill. Adm. Part 104.

The Board concludes that the second-notice proposal will retain the 10% reduction for EAPs in Sections 217.158 and 217.390.

SECTION-BY-SECTION SUMMARY OF PROPOSED AMENDMENTS TO PART 217

Through a hearing officer order on September 19, 2024, the Board asked the Agency to comment on multiple proposed changes to simplify and clarify the proposal. Those included striking the phrases "of this Section" or "of this Part" from cross-references and changing the phrase "in accordance with" to "in compliance with." The Board intended these proposed changes to be non-substantive in nature.

IEPA confirmed that it found the Board's proposed changes acceptable. Tr. 1 at 70, 72. The Board does not specifically address these changes in this opinion.

IEPA in turn proposed revisions based on comments from and continuing discussions with IERG and affected sources during this rulemaking. These revisions are summarized below. The participants generally supported the revisions, with exceptions and findings from the Board as detailed below.

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Based on public comments, IEPA proposed to amend its rulemaking proposal to include a new Part 217.APPENDIX I entitled "Compliance Dates for Certain Emission Units at Petroleum Refineries and Petrochemical Facilities." PC 2 at 4; PC 9 at 6.

Subpart A: General Provisions

Section 217.101: Measurement Methods

Section 217.101 in subsection (a) through (e) lists five methods that must be used to measure NO_x. 35 Ill. Adm. Code 217.101. IEPA proposed to update references to the sources of these methods. SR at 17; *see* Prop. 217 at 6.

Section 217.102: Abbreviations and Units

Section 217.102 lists abbreviations of names and terms used in Part 217. 35 Ill. Adm. Code 217.102. IEPA proposed to add the "PEMS" as the abbreviation of "predictive emissions monitoring system." SR at 17; *see* Prop. 217 at 7.

Section 217.104: Incorporations by Reference

Section 217.104 lists materials incorporated by reference in Part 217. 35 Ill. Adm. Code 217.104. IEPA proposed to remove references to outdated materials, update various references, and add a reference to a federal regulation governing combustion tuning requirements. SR at 17; *see* Prop. 217 at 7-9, citing 40 CFR 63.7540 (2024).

Subpart D: NO_x General Requirements

Section 217.150: Applicability

Section 217.150 addresses the applicability of Subparts D, E, F, G, H, I, and M of Part 217. SR at 17; *see* Prop. 217 at 9-11. The SIP for a Moderate NAA must require NO_x RACT for sources that emit or have the potential to emit 100 tpy or more of NO_x. TSD at 5. Subparts D, E, F, G, H, I, and M currently apply to sources that emit or have the potential to emit 100 tpy or more of NO_x emissions that are located in the specified NAAs. SR at 12; *see* 35 Ill. Adm. Code 217.150(a)(1)(A). Subparts D, E, F, G, H, I, and M also apply to emission units that are located at subject sources and that emit NO_x in an amount equal to or greater than 15 tpy and equal to or greater than 5 tons per ozone season. SR at 12, citing 35 Ill. Adm. Code 217.150(a)(1)(B).

Subsection (a)

IEPA proposed to amend subsection (a)(1) to establish that current applicability criteria apply before May 1, 2025. SR at 17; *see* Prop. 217 at 9.

IEPA proposed to add a subsection (a)(2) to establish applicability criteria applicable on and after May 1, 2025. SR at 17-18; *see* Prop. 217 at 10. Under these criteria, Subparts D, E, F, G, H, I, and M 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_x in an amount equal to or greater than 50 tons per year.

(i) The area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County.

(ii) The area composed of the Metro East area counties of Madison, Monroe, and St. Clair.

(B) The emission unit emits 15 tons or more of NO_x to the atmosphere per calendar year. Prop. 217 at 10; *see* SR at 18; TSD at 5.

IEPA proposed to lower the applicability threshold because monitoring data indicated that both NAAs "will be reclassified as serious NAAs after the next attainment date of August 3, 2024." TSD at 5. IEPA asserted that "[l]owering 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." *Id*.

IERG asked whether "the Agency cannot produce estimates for how many newly subject sources there will be nor estimates for the impact to NO_x emission reductions that these newly subject sources will have." IERG Questions at 3. IEPA stated that the TSD's Appendix includes sources that are potentially newly subject. Tr. 1 at 24. However, estimates of actual emission reductions, compared to potential or allowable emission reductions, are difficult to provide because "the proposed rules contain a number of compliance flexibilities and options for sources to limit source-wide and unit-specific emissions below applicability thresholds." *Id*. at 24-25. IERG further asked if the sources listed in the TSD's Appendix was an exhaustive or comprehensive list of sources the Agency believes would be subject to the proposed revisions. *Id*. at 25. IEPA stated that based on the Agency's methodology for analyzing emissions, the list in the Appendix is conservative if not exhaustive, and it would be "very unlikely" for sources not included to be subject. *Id*. at 25-26.

IERG asked how IEPA weighed "the interest of preemptively lowering the applicability threshold against unknown compliance capabilities by May 1, 2025, for an unknown number of potentially affected sources." IERG Questions at 3. IEPA stated that it proposed lowering the applicability threshold to avoid additional rulemakings because it believed both NAAs could be reclassified from moderate to serious as early as November 2024. Tr. 1 at 28. IEPA does not believe there were unknown compliance capabilities, since it conducted "a fairly thorough analysis of which sources we thought . . . would possibly be newly subject and made an effort to assess their compliance abilities. . . I think we did make efforts to communicate with those sources that we thought may be caught in between." *Id*. at 28-29.

IERG asked whether a source could "move in and out of being subject" to Section 217.150's applicability threshold of 15 tpy. Tr. 1 at 55. IEPA stated that Section 217.150(a)(2)(B) "does seem to be a once-in-always-in provision," where a source that emitted more than 15 tpy and was subject to the rule would continue to be subject to it. *Id*. IERG then asked whether the subsection specifically states this, or whether a source could be subject one year and then below the threshold the next year. *Id*. IEPA stated that, per the Agency's interpretation, if a source ceases to fulfill the emissions criteria of Section 217.150(a), the emission limits in Subparts E, F, G, H, I, and M "would continue to apply to any emission unit that was ever subject to the provisions of any of those individual emission limit subparts." *Id*. at 55-56.

IERG asked whether emission limits for units below the 15 tpy threshold would need to be specified in a federally enforceable permit for those units not to be subject. *Id*. at 56. IEPA stated that, per its interpretation, a source that met the source-wide 50 tpy applicability threshold would not need a federally enforceable limit of 15 tpy for a specific unit, if that unit historically emitted less than 15 tons and would continue to be under that threshold. *Id*. at 57.

IERG also asked whether the 50 tpy threshold would apply to newly subject sources starting May 1, 2025, and whether IEPA is considering changes at this time. *Id*. at 60. IEPA stated the compliance date is May 1, 2025, and that the Agency was considering "potentially alternative compliance dates for specific units" based on communication with newly subject sources. *Id*.

IERG asked IEPA when a source would first be required to comply with unit-specific emission standards, if historical actual emissions are less than 15 tpy but more than 15 tpy in the future. *Id*. at 66-68. IEPA stated that a previously non-subject existing unit at an affected source that begins to emit 15 tons or more in a given year would be subject to Part 217 in the next calendar year. PC 1 at 5.

Subsection (c)

Subsection (c) provides that "[t]he provisions of this Subpart do not apply to afterburners, flares, and incinerators." 35 Ill. Adm. Code 217.150(c). IEPA proposed to amend it by adding that "Subparts E, F, G, H, I, and M" also do not apply to afterburners, flares, and incinerators. Prop. 217 at 11; *see* SR at 18.

Subsection (d)

Subsection (d) provides that,

> [w]here a construction permit, for which the application was submitted to the Agency prior to the adoption of this Subpart, is issued that relies on decreases in emissions of NO_x from existing emission units for purposes of netting or emission offsets, such NO_x decreases remain creditable notwithstanding any requirements that may apply to the existing emission units pursuant to this Subpart and Subpart E, F, G, H, I, or M of this Part. 35 Ill. Adm. Code 217.150(d).

IEPA stated subsection (d) refers to an application submitted to the Agency before the August 31, 2009, date on which the Board adopted Subpart D. IEPA proposed to delete the entire subsection because it "currently has no practical effect." SR at 18; *see* Prop. 217 at 11.

IEPA re-designated as subsection (d) the current subsection (e), which provides in its entirety that "[t]he owner or operator of an emission unit that is subject to this Subpart and Subpart E, F, G, H, I, or M of this Part must operate such unit in a manner consistent with good air pollution control practice to minimize NO_x emissions." 35 Ill. Adm. Code 217.150(e).

The Board asked IEPA to explain what the phrase "good air pollution practice" means in the context of Part 217, Subparts E, F, G, H, I, or M. Board Questions at 2. IEPA explained:

> [i]n general, this means that, at all times, the owners or operators must, to the extent practicable, maintain and operate any affected unit, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Such practices or procedures may

> include but are not limited to monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. Tr. 1 at 70-71.

The Board also asked IEPA whether this subsection "should apply to emission units covered under other subparts such as Subparts Q and T." Board Questions at 2. IEPA stated:

> [t]he Agency does not object to the Board amending Subpart Q to include a similar provision under Section 217.386 by adding a new subsection 9(f) because Subpart Q is included in satisfying NO_x RACT requirements under Section 172 and 182 of the Clean Air Act.
>
> However, the Agency does not support amending Subpart T. Subpart T was adopted by the Board to satisfy the NO_x SIP Call finding of significant contribution and rulemaking for certain states in the Ozone Transport Assessment Group regions for purposes of reducing regional transport of ozone. Tr. 1 at 71.

Section 217.152: Compliance Date

IEPA proposed to amend the heading of this section to "Compliance Date and 30-Day Rolling Average Basis." Prop. 217 at 11; *see* SR at 18.

Subsection (a)

Subsection (a) provides that "[c]ompliance 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." 35 Ill. Adm. Code 217.152(a). IEPA proposed to strike subsection (a) and replace it with language providing that,

> [o]n 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. Prop. 217 at 11; *see* SR at 18-19; TSD at 6.

While current rules require compliance demonstrations on an ozone season and an annual basis, "USEPA has indicated that this 30-day rolling averaging period is the longest acceptable averaging period." TSD at 6. IEPA added that "this is consistent with other RACT rules in the region." *Id*. IEPA argues that "[t]his updated averaging period may increase the effectiveness of the proposed emission limits in contributing to the prevention of ozone monitoring exceedances throughout the year." *Id*.

The Board asked IEPA to provide any examples of using emissions data from existing

sources to show how the change in averaging period improves the effectiveness of the proposed emissions limits. Board Questions at 9. IEPA asserted that shorter averaging periods will minimize large fluctuations in emissions. Tr. 1 at 79. With longer periods, days or weeks of large quantities of emissions could impact ozone concentrations on a short-term basis without triggering compliance concerns. *Id*.

IEPA confirmed that in choosing the May 1, 2025, compliance date, it communicated with potentially affected sources that conveyed they would need additional time for capital planning, expenditures, permitting, and installing additional emission controls or testing devices. IERG Questions at 3; Tr. 1 at 30. IEPA also confirmed that any potentially affected sources requesting a later compliance deadline "will need to sufficiently demonstrate that necessity," such as "explaining what a capital project would look like, what that would result in, emission reductions that would result from those, the amount of time that may take, and also possible revisions to the proposed language that we have before the Board now." Tr. 1 at 30-31.

IERG also questioned whether IEPA has "any other alternative compliance options for potentially affected sources who will need additional time from the May 1, 2025, compliance date." IERG Questions at 3. IEPA stated it is willing to consider other options on a case-by-case basis. Tr. 1 at 32.

IERG noted the Agency's Second Post-Hearing Comments reference USEPA's conclusion that "three years is generally an adequate amount of time for the non-EGU sources covered by the Good Neighbor Plan to install the controls." IERG Questions 2 at 1. IERG asked IEPA to explain its statement that "[s]uch timeframes appear similarly analogous in the context of this proposed rulemaking." *Id*. IEPA responded that based on discussions with affected sources about the timeframe needed for major capital projects, which includes engineering, funding, permitting, installation, and certification, USEPA's three-year timeframe estimate is similar to what these sources would generally need to install additional air pollution equipment or upgrade to newer units. IEPA Resp. at 2.

Based on public comments and continued discussions with affected sources, IEPA ultimately proposed to add subsections (e), (f), and (g), which provide compliance date extensions for units listed under APPENDIX I because these sources had successfully demonstrated sufficient need. IEPA Resp. at 2-3; PC 2 at 1-2, 4-5; PC 3 at 5, 10.

Subsection (a)(1)

IEPA proposed to add a subsection (a)(1) providing 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." Prop. 217 at 11; *see* SR at 19.

Subsection (a)(2)

IEPA proposed to add a subsection (a)(2) providing that "[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." Prop. 217 at 11; *see* SR at 19.

Subsection (a-5)[4]

IEPA also proposed to add a subsection (a-5) providing that "[t]he 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." Prop. 217 at 12; *see* SR at 19.

Section 217.154: Performance Testing

IEPA proposed to amend the heading of this section to "Initial Performance Testing." Prop. 217 at 12; *see* SR at 19.

IEPA proposed to amend subsection (a) by adding a reference to PEMS and combustion tuning to be consistent with subsection (b). Prop, 217 at 12-13; *see* SR at 19. In subsections (a) and (b), IEPA proposed changes including modifying dates, striking dependent clauses, and changing terms to their defined acronyms. SR at 19; *see* Prop. 217 at 12-13.

Based on public comments and discussions with affected sources, IEPA proposed to further amend subsection (a) by adding the following language: "If performance testing was already conducted by an owner or operator under this subsection within five years before May 1, 2025, the owner or operator is not required to conduct an additional performance test." PC 3 at 5.

Section 217.155: Initial Compliance Certification

Subsection (a)

IEPA proposed to amend subsection (a) by proposing that it applies before May 1, 2025. Prop. 217 at 13-14; *see* SR at 19-20.

Subsection (b)

IEPA proposed to add a subsection (b)(1) providing that, "[o]n and after May 1, 2025, [b]y 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." Prop. 217 at 14; *see* SR at 19-20.

In subsection (b)(1)(A), IEPA proposed that, "[f]or 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

[4] For first-notice publication, this subsection was designated (b) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11484-85 (Aug. 9, 2024).

E, F, G, H, I, or M as applicable, of this Part." Prop. 217 at 14; *see* SR at 20.

In subsection (b)(1)(B), IEPA proposed that, "[f]or 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." Prop. 217 at 14; *see* SR at 20.

In subsection (b)(2), IEPA proposed adding "similar certification requirements for the owner or operator of emission units constructed or modified on or after May 1, 2025." SR at 20, *see* Prop. 217 at 14-15.

Section 217.156: Recordkeeping and Reporting

Subsection (b)

Subsection (b) requires that owners or operators of emission units subject to Subparts E, F, G, H, I, or M must maintain records demonstrating compliance with the applicable Subpart, including specified information. 35 Ill. Adm. Code 217.156(b)(1-11).

Subsection (b)(3) requires maintaining records of "[m]onthly, seasonal, and annual operating hours." 35 Ill. Adm. Code 217.156(b)(3). IEPA proposed to revise it to require "[b]efore May 1, 2025, monthly, seasonal, and annual operating records. On and after May 1, 2025, daily operating hours." Prop. 217 at 15; *see* SR at 20.

Subsection (b)(4) requires maintaining records of "[t]ype and quantity of each fuel used monthly, seasonally, and annually." 35 Ill. Adm. Code 217.156(b)(4). IEPA proposed to revise it to require "[b]efore May 1, 2025, 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." Prop. 217 at 16; *see* SR at 20.

IEPA proposed to add a subsection (b)(5) to require, "[o]n and after May 1, 2025, total mass emissions on a daily basis and on a 30-day rolling average basis." Prop. 217 at 16; *see* SR at 20; TSD at 6.

Subsection (b)(11) requires, "[i]f 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." 35 Ill. Adm. Code 217.156(b)(11). After re-designating it as subsection (b)(12) to reflect the proposed addition of subsection (b)(5), IEPA proposed to revise it by making it applicable "[b]efore May 1, 2025." Prop. 217 at 16; *see* SR. at 20.

Based on public comments and ongoing discussions with affected sources, IEPA proposed to further amend subsection (b) by adding subsection (b)(13):

On and after May 1, 2025, if, under Section 217.152(f), an industrial boiler is

using backup distillate fuel oil in lieu of natural gas during periods of natural gas curtailment or gas supply interruption, or during periods of periodic testing and maintenance of backup fuels or operator training, not exceeding 48 hours in a calendar year, records documenting the total hours per calendar year of the industrial boiler during these periods. PC 1 at 7-8.

Subsection (g)

Subsection (g) provides that

[t]he 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. 35 Ill. Adm. Code 217.156(g).

IEPA first proposed to amend this subsection by making it applicable until May 1, 2025. SR. at 21; *see* Prop. 217 at 17. IEPA also proposed to amend it by adding language providing that,

[o]n 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. Prop. 217 at 21; *see* SR at 21.

Subsection (i)

Subsection (i) establishes requirements for owners or operators demonstrating compliance through an emissions averaging plan. 35 Ill. Adm. Code 217.156(i). IEPA proposed to amend it by applying it until May 1, 2025. Prop. 217 at 18; *see* SR at 21.

Subsection (i-5)[5]

IEPA also proposed to add a subsection (i-5) providing that,

[o]n 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:

[5] For first-notice publication, this subsection was designated (j) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11492-93 (Aug. 9, 2024).

1) For all units that are part of the emissions averaging plan, the total mass of allowable NO_x emissions on a 30-day rolling average basis.

2) The total mass of actual NO_x emissions on a 30-day rolling average basis for each unit included in the averaging plan.

3) The calculations that demonstrate that the total mass of actual NO_x emissions is less than the total mass of allowable NO_x emissions using equations in Section 217.158(f-5).

4) The daily information required to determine the total mass of actual NO_x emissions on a 30-day rolling average basis. Prop. 217 at 18; *see* SR at 21; TSD at 6.

IEPA explained that its proposed subsection (i-5) would require that "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." SR at 21.

Based on public comments, IEPA proposed to amend this subsection by changing the report submission deadline from March 1 to May 1 following the previous calendar year. PC 7 at 7-8.

Subsection (k)

Subsection (k) provides that "[t]he 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." 35 Ill. Adm. Code 217.156(k). IEPA first proposed to amend it by making it applicable until May 1, 2025. Prop. 217 at 19; *see* SR at 21-22.

IEPA also proposed to add to subsection (k) that, "[o]n 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." Prop. 217 at 19; *see* SR at 22; TSD at 6. IEPA explained that "Part 96 is the NO_x Budget Trading Program and Clean Air Interstate Rule (CAIR) NO_x and SO_2 Trading Program for SIPs." SR at 22. Because the Cross-State Air Pollution Rules replaced the CAIR beginning in 2015, its proposed revision refers to Part 75, Continuous Emissions Monitoring. *Id*.

Subsection (l)

IEPA proposed to add a subsection (l) requiring 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 report." SR at 22; *see* Prop. 217 at 19; TSD at 6. IEPA included this additional reporting in its proposal in response to USEPA's recommendation. TSD at 6.

Subsection (l)(1) through (l)(6) list the required elements of the report. Prop. 217 at 19-20. The report must demonstrate compliance with the applicable requirements for the preceding year by May 1 of the following year. SR at 22; *see* Prop. 217 at 19; TSD at 6. The owner or operator may submit the report to the Agency 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). *Id*.

Section 217.157: Testing and Monitoring

Subsection (a)

IEPA proposed to add a subsection (a)(3-5)[6] providing that

> [o]n 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. Prop. 217 at 21; *see* SR at 22.

IERG asked whether IEPA was willing to revise Section 217.157 "to include that representative pair testing is allowed where a source has identical emissions units during the normal 5-year testing interval." IERG Questions at 4. IEPA stated it was open to suggested language and later discussed the concept with subject sources; however, it was not aware of receiving any proposed revisions that would be adequate to meet generally accepted testing requirements. Tr. 1 at 33; IEPA Resp. at 3.

IERG also asked whether IEPA was willing "to revise and clarify Section 217.157(a)(4) to state that owners or operators with emission units subject to the proposed rule have two options, to either install a CEMS following 40 CFR 60 subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures or conduct a performance test." IERG Questions at 4. IEPA believes "these options are available to affected sources as currently proposed in Section 217.157(a)(4) and 217.157(a)(6)." Tr. 1 at 34. IERG further asked if IEPA was willing to include in Section 217.157(a)(4) "the alternative option of performing or conducting a performance test that's found in (a)(6) and (a)(4)." *Id*. IEPA stated it intended this to be a possibility and would consider language to clarify that intent. *Id*. at 34-35.

IEPA also proposed to revise subsection (a)(5) to provide that an owner or operator can use CEMS to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis until May 1, 2025, and on a 30-day rolling average on and after May 1, 2025. SR at 23; *see* Prop. 217 at 22.

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[6] For first-notice publication, this subsection was designated (4) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11495-97 (Aug. 9, 2024).

IEPA proposed to add a subsection (a)(7) establishing requirements for performance tests. Prop. 217 at 21; *see* SR at 22-23. IEPA also proposed to revise subsection (a)(4) and (a)(6) to reflect adding subsection (a)(7) and update cross references. Prop. 217 at 21, 23; SR at 23. IEPA also proposed to strike performance test requirements in subsections (a)(4)(A) and (a)(4)(B). *Id.*

IEPA further proposed in subsection (a)(7) that performance tests required by subsection (a) "must be conducted at the owner or operator's expense and must meet the requirements of subsection (a)(7)(A)." SR at 23; *see* Prop. 217 at 23. "Subsection (a)(7)(A) sets forth performance test parameters." *Id.* After an initial performance test, all performance tests required by subsection (a) "must also meet the requirements of subsection (a)(7)(B)." *Id.* "Subsection (a)(7)(B) provides that a performance test must be performed at least once every five years." *Id.*

IERG asked whether IEPA will "require sources to specify in testing protocols and subsequent testing reports whether testing was performed at 'maximum operator capacity' or 'normal maximum load,'" in accordance with Sections 217.157(a)(7)(A) and (B). IERG Questions at 4. IEPA stated that it intended for testing protocols to remain unchanged from existing Part 217 rules. Tr. 1 at 33.

IERG also asked IEPA whether it was willing

> to revise the performance test operating level under Section 217.157(a)(7)(A) of the proposed rule to be consistent with the operating level requirement for CEMS relative accuracy test audits (RATAs) which, under 40 CFR 60 Appendix B, Performance Specification 2, § 8.4.1 requires operators of emission units equipped with CEMS to conduct a RATA annually at a level greater than 50% of normal load." IERG Questions at 4.

IEPA responded that it "does not agree that the requirements for a RATA are equivalent to requirements to perform emissions testing at maximum operating capacity load or normal maximum load." Tr. 1 at 36. In general, emissions testing is always performed at or near maximum capacity to measure potential worst-cast emission scenarios. *Id.* A RATA ensures that the CEMS is accurately monitoring NO_x emissions at various capacity factors "and has no connection to the load threshold requirement for emissions testing." *Id.* Emissions test requirements under Section 217.157(a)(7)(A) are for units not monitored by CEMS.[7] *Id.*

Finally, IERG also asked whether IEPA was willing to add a new subsection providing "owner or operators with emission units subject to the proposed rule the opportunity to submit alternate monitoring plans[,] where installing monitoring or testing facilities for individual emission units is not possible and those units further demonstrate unique monitoring or performance testing situations." IERG Questions at 4. Based on continuing discussions with

[7] The transcript for the first hearing indicates Davis cited Section 217.157(a)(8)(A), which was originally Section 217.157(a)(7)(A) before redesignation for first notice. The Board refers to redesignated subsections by their original designations where possible.

affected sources, IEPA proposed a revision to subsection (a)(7)(A) and a new subsection (a)(7)(C), requiring in part that the alternative method must include the use of mass balance for units emitting through the common stack, and the alternative method must first receive written approval from IEPA and USEPA. IEPA Resp. at 3; PC 3 at 2-3, 5-6; Tr. 1 at 35.

Subsection (b)

IEPA first proposed to clarify subsection (b)(3)(A) by replacing a reference to the various types of emission units subject to Subparts G, H, or I with a reference to "[a]ll such units, including those that are part of an emissions averaging plan." Prop. 217 at 24; *see* SR at 23. IEPA also proposed to amend subsection (b)(3)(A) by requiring the owner or operator to conduct subsequent performance tests at least once every five years. *Id*.

IEPA proposed to revise subsection (b)(4) by updating citations to test methods. SR at 23; Prop. 217 at 25.

IEPA also proposed to revise subsection (b)(5) to provide that an owner or operator can use CEMS to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis until May 1, 2025, and on a 30-day rolling average on and after May 1, 2025. SR at 23; *see* Prop. 217 at 25-36.

Subsection (c)

Subsection (c) provides that "[t]he owner or operator of a fossil fuel-fired stationary boiler subject to Subpart M of this Part must install, calibrate, maintain, and operate a continuous emissions monitoring system on such emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 96, subpart H." 35 Ill. Adm. Code 217.157(c). IEPA proposed to make this requirement applicable until May 1, 2025. Prop. 217 at 26; *see* SR at 23-24.

IEPA also proposed to add the requirement that, "[o]n 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_x emissions discharged into the atmosphere in accordance with 40 CFR 75." Prop. 217 at 26; *see* SR at 24. IEPA explains that "Part 96 is the NO_x Budget Trading Program and Clean Air Interstate Rule (CAIR) NO_x and SO_2 Trading Program for SIPs." SR at 24. Because the Cross-State Air Pollution Rules replaced the CAIR beginning in 2015, its proposed revision refers to Part 75, Continuous Emissions Monitoring. *Id*.

Subsection (d)

IERG asked IEPA whether it was willing to revise Section 217.157(d) to provide "flexibility for multiple heaters venting to a common stack relying on a performance test." IERG Questions at 4. IERG asked IEPA whether it would consider the following revision:

> 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 conducting a performance test, the owner or operator may, with written approval from the Agency, utilize a single performance test for the combination of emission units subject to Subpart E, F, G, H, I, M, or Q of this Part that share the common stack, provided such emission units are subject to an emission averaging plan under this Part. IERG Questions at 4.

Based on continuing discussions with affected sources, IEPA proposed revisions to subsection (d) requiring CEMS and/or performance testing for each unit served by the common stack, monitoring of heat input from all emission units served by the stack, and allowing sources to exclude common stack units from EAPs if certain conditions are met. IEPA Resp. at 3; PC 3 at 3-4, 6.

Subsection (f)

IEPA proposed to amend subsection (f) by providing 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." SR at 24; *see* Prop. 217 at 26-27.

IERG asked whether IEPA was willing to revise Section 217.157 to reduce the reporting burden "where a facility with emission units that are individually compliant with the emission limits but are using a common stack and thus subject to subsection (d)[,] which implies the requirement of using an emissions averaging plan and the reporting requirements for an emissions averaging plan." IERG Questions at 4. IERG also asked whether IEPA can "otherwise explain how a facility can reduce its reporting burden for common stack scenarios when all emission units are complaint so there is no need for an averaging plan." IERG Questions at 5. As described above, IEPA proposed revisions for common stacks under Section 217.157(d).

Finally, IERG asked IEPA to clarify the compliance and reporting requirements "for units that may take months or even years to produce 30 operating days to calculate actual emission units where these units are not emergency or standby units." *Id*. at 38-39. IEPA believes that a boiler or process heater that operated less than 30 days within a year would likely not emit more than 15 tons a year. *Id*. at 39. IEPA also noted that rules for emergency and standby units involve engines and turbines. PC 1 at 3. As such, IEPA proposed revising Section 217.392, rather than Section 217.157, to allow the units in question to comply on an annual basis for a given calendar year until 30 operating days are accumulated. *Id*.

Section 217.158: Emissions Averaging Plans

IEPA asserted that an 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." TSD at 6.

IERG asked IEPA how many entities comply with Part 217 through the EAP provisions. IERG Questions at 5. IERG also asked IEPA how many entities currently conduct emission averaging amongst emissions units within a single facility (intra-site) and amongst emission units at multiple facilities (inter-site). *Id*. IEPA is aware of four sources that currently comply using emissions averaging, with all four averaging intra-site. Tr. 1 at 40.

Subsection (a)

IEPA proposed to revise subsection (a) by adding a reference to geographic areas in proposed Section 217.150(a)(2)(A)(i) or (ii) to language establishing emission units that may demonstrate compliance through an emissions averaging plan. Prop. 217 at 27; *see* SR at 24.

Subsection (a) lists units that may be included in an emissions averaging plan. 35 Ill. Adm. Code 217.158. Subsection (a)(1)(B) lists "[u]nits 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." 35 Ill. Adm. Code 217.158(a)(1)(B). IEPA proposed to add language making these units eligible "[b]efore May 1, 2025." Prop. 217 at 24; *see* SR at 24.

IEPA proposed to add a new subsection (a)(1)(B-5)[8] providing that an emissions averaging plan may include,

> [o]n 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. Prop. 217 at 27; *see* SR at 24-25.

Subsection (a)(2) lists units that may not be included in an emissions averaging plan. 35 Ill. Adm. Code 217.158(a)(2). Subsection (a)(2)(B) lists "[u]nits 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." 35 Ill. Adm. Code 217.158(a)(2)(B). IEPA proposed to add language applying this subsection "[b]efore May 1, 2025." Prop. 217 at 28; *see* SR at 25.

Based on public comments and ongoing discussions with affected sources, IEPA proposed further revisions to subsection (a). PC 1 at 6, 8-9. First, in subsections (a)(1)(A) and (D) and (a)(2)(A), IEPA proposed to modify the start date for emission units that may be included in an EAP from before January 1, 2002, to before January 1, 2017. *Id*. In subsection (a)(1)(C), IEPA proposed to allow EAPs to also include units that are not otherwise subject to Subpart Q under Section 217.386(b)(2)(A) or (B). *Id*. Finally, in new subsection (a)(1)(E), IEPA proposed to also allow emission units that are not otherwise subject to Subpart E, F, G, H,

[8] For first-notice publication, this subsection was designated (C) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11501-02 (Aug. 9, 2024).

I, or M under Section 217.150(a)(2)(B), but that share a common stack with a unit that is subject to Subpart E, F, G, H, I, or M to be included in an averaging plan. *Id.*

Subsection (b)

Subsection (b) requires an owner or operator to submit an averaging plan to the Agency, and IEPA proposed to limit its applicability to "[b]efore May 1, 2025." Prop. at 28; *see* SR at 25; TSD at 6.

Subsection (b-5)[9]

IEPA proposed to add a subsection (b-5) providing that,

> [o]n 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. Prop. 217 at 28-29; *see* SR at 25; TSD at 6.

IEPA explained that, if an owner or operator intends to use an emissions averaging plan on May 1, 2025, the owner or operator must submit the plan to IEPA at least 30 days before May 1, 2025. SR at 25; *see* Prop. 217 at 28-29.

Subsection (c)

Subsection (c) provides that

> [a]n 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

[9] For first-notice publication, this subsection was designated (c) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11503-11 (Aug. 9, 2024).

> the Agency by January 1 of the applicable calendar year, the previous year's plan will be the applicable emissions averaging plan. 35 Ill. Adm. Code 217.158(c).

IEPA proposed to strike the second and third sentences addressing the submission of emission averaging plans to IEPA. Prop. 217 at 29; *see* SR at 25.

Subsection (d)

Subsection (d)(2) provides that,

> [i]f 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. 35 Ill. Adm. Code 217.158(d)(2).

IEPA proposed to limit its applicability to before May 1, 2025. Prop. 217 at 29; *see* SR at 25.

IEPA proposed to add a subsection (d)(3) providing that,

> [o]n 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. Prop. 217 at 29; *see* SR at 25.

Subsection (e)

Subsection (e)(1) provides that an owner or operator must

> 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. 35 Ill. Adm. Code 217.158(e)(1).

IEPA proposed to limit its applicability to "[u]ntil May 1, 2025." Prop. 217 at 30; *see* SR at 26.

IEPA proposed to add a subsection (e)(2) providing that an owner or operator must,

> [o]n 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. Prop. 217 at 30; *see* SR at 26.

The current subsection (e)(2) provides that an owner or operator must "[s]ubmit to the Agency, by March 1 following each calendar year, a compliance report containing the information required by Section 217.156(i)." 35 Ill. Adm. Code 217.158(e)(2). After re-designating it as subsection (e)(3) to reflect the addition of a new subsection (e)(2), IEPA proposed to limit its applicability to "[u]ntil May 1, 2025." Prop. 217 at 30; *see* SR at 26. IEPA then proposed to add language providing that, "[o]n 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)." Prop. 217 at 30; *see* SR at 26. Based on public comments, IEPA proposed to further revise the reporting deadline from March 1 to May 1 following each calendar year. PC 7 at 7, 10.

Subsection (f)

Subsection (f) limits NO_x emissions and provides an equation to determine compliance. 35 Ill. Adm. Code 217.158(f). The averaging time for units in an EAP is both the ozone season of May 1 through September 30 and the calendar years. TSD at 6. IEPA proposed to revise it by limiting its applicability to "[u]ntil May 1, 2025." Prop. 217 at 30; *see* SR at 26.

Subsection (f-5)[10]

IEPA also proposed a new subsection (f-5) providing that, "on and after May 1, 2025, the total mass of actual NO_x emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO_x for those units on a 30-day rolling average basis." SR at 26; Prop. 217 at 32; *see* TSD at 6. IEPA added that the proposed new subsection "also includes the equations addressing the 10 percent environmental write-off on calculated allowable emissions to generate an environmental benefit and to determine compliance." SR at 26; *see* Prop. 217 at 32-35; TSD at 6-7.

The Board asked IEPA "whether this proposed change would require any affected sources to significantly modify their EAPs or require them to implement addition control strategies to demonstrate compliance." Board Questions at 9. IEPA believes it is possible that a shorter averaging period will result in sources with averaging plans using different or additional control strategies. Tr. 1 at 80.

Based on continuing discussions with affected sources and USEPA, IEPA proposed to revise subsection (f-5)(1) by adding an alternative emission rate calculation "for units equipped with CEMS that monitor stack flow in accordance with 40 CFR 60 or 75, or alternate methodology that has been approved by the Agency or USEPA and included in a federally enforceable permit." PC 7 at 11. IEPA also proposed to revise subsection (f-5)(2) by keeping

[10] For first-notice publication, this subsection was designated (h) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11507-11 (Aug. 9, 2024).

only the first sentence in the definition of E_{all} and removing all references to affected industrial boilers and other units. *Id*. at 12.

Subsection (g)

IEPA proposed to revise subsection (g) by adding a reference to geographic areas listed in proposed Section 217.150(a)(2)(A)(i) or (ii) to language requiring an owner or operator of specified emission units to comply with various requirements. Prop. 217 at 35; *see* SR at 26.

Subsections (h), (i), (j)

Subsections (h), (i), and (j) allow owners and operators of specified emissions units demonstrating compliance with an emissions averaging plan to exclude specified time periods from the calculation demonstrating compliance. 35 Ill. Adm. Code 217.158(h), (i), (j). IEPA proposed to limit the applicability of these three subsections to "[u]ntil May 1, 2025." Prop, 217 at 35-36; *see* SR at 26. IEPA stated that these revisions respond 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." TSD at 7.

IERG asked IEPA to explain the need and justification for the petroleum refinery maintenance TA exclusions in subsections (h) and (j) when they were first adopted. IERG Questions at 6; Tr. 1 at 45-46. IEPA stated that some units with lower emission rates compared to unit-specific RACT emission limits in an averaging plan could be out of operation during TA periods, and thus compliance calculations for the averaging plan would yield higher emission rates on a pound per million Btu basis. Tr. 1 at 46. IEPA confirmed that these TA provisions have been used by petroleum refineries since they were adopted. *Id*. IERG further asked why IEPA removed these provisions despite IERG's request to keep them. IERG Questions at 6. IEPA stated it removed the TA provisions because "[t]hese provisions allowed for periods during which no emission limits apply. Illinois EPA proposed and the Board has recently adopted revisions to remove these types of start up, shut down, malfunction [(SSM)] exceptions. Illinois EPA proposed to remove these per USEPA direction." Tr. 1 at 45.

IERG also asked IEPA whether the SSM SIP Call for NO_x referred to the TA provision language as a deficiency or something that needed to be removed for SIP approval. *Id*. at 61. IEPA stated that the deficiencies noted by USEPA's letter predated the SSM SIP Call, so the TA language would not have been in that letter. *Id*. Additionally, USEPA confirmed to IEPA that the emission limits always apply, and that retaining TA exemptions is unacceptable. PC 1 at 4, 33 (Oct. 9, 2024, email from USEPA to IEPA).

IEPA confirmed that the maintenance TA provision in Part 217 was not addressed in the SSM SIP Call. Tr. 1 at 68. IERG then asked whether IEPA would consider an entire TA event as an SSM. *Id*. at 68-69. IEPA asserted that a TA event is a shutdown and then a startup, "an event in which there are exception to limits that apply at all times." *Id*. at 69. IEPA further confirmed that the most recent D.C. court opinion addressing SSM events had no bearing on removing the maintenance TA provisions. *Id*.

IERG noted the email communication between IEPA and USEPA regarding the required sunset of the TA provisions (PC 1 at 33) and the later revisions proposed to Section 217.158(h)(1) through (h)(5) (redesignated as subsection (j)) allowing a daily emissions cap for TA periods (PC 2 at 5-6). IERG Questions 2 at 5. IERG asked IEPA how these proposed revisions would impact subject sources. *Id*. IEPA stated that although it had originally proposed sunsetting the TA provisions, affected sources requested that the provisions remain. IEPA Resp. at 11. IEPA discussed the issue with USEPA and the affected sources to draft TA language that would not provide an exemption: "Subject sources will be subject to a turnaround daily emissions cap during periods of maintenance turnaround, provided that the proposed requirements are met. Those include advanced written notification, limited time frame, continued operation of pollution control equipment, and reporting requirements subsequent to the turnaround." *Id*. at 11-12.

Based on continuing discussions with affected sources, IEPA proposed revisions to subsections (h) and (j) (later redesignated as subsections (j) and (l)). PC 2 at 3-7. The revisions remove the May 1, 2025, cutoff date and provide a daily emissions cap for refineries demonstrating compliance through an EAP during TA periods, provided that certain requirements are met. *Id*.

Subsection (m)

IEPA also proposed a new subsection (m), allowing the owner or operator of a petroleum refinery in Channahon or Wood River to delay compliance with the 10% reduction until January 1, 2028. PC 2 at 3-4, 7; PC 3 at 4, 8. Phillips 66 owns a refinery in Wood River and opposes the 10% reduction. PC 5 at 6-7. If the Board adopts the 10% reduction, Phillips 66 requests that the Board include subsection (m). *Id*. As discussed above, the Board finds the 10% reduction is economically reasonable and technically feasible; as such, the Board will include subsection (m) in its Second Notice proposal.

IERG asked whether IEPA was willing "to include an alternative emission rate or plan for sources with varying emissions rates between normal operations and unit downtime operations during routine control device maintenance." IERG Questions at 5. IEPA stated it was open to "alternatives that would constitute RACT, are sufficiently tailored, and would be approvable as a SIP provision," adding that sources could suggest language for specific alternatives. Tr. 1 at 44-45.

IERG asked IEPA for details on any compliance margin built into the existing or proposed NO_x RACT emission rate limits. IERG Questions 2 at 4. IEPA stated it is unaware of any compliance margin. IEPA Resp. at 9.

IERG asked IEPA whether two or more boilers and/or process heaters that vent to a common stack are required by Section 217.157(d) to comply using an EAP, and how many Illinois sources have common stacks covered by an EAP. IERG Questions 2 at 4. IERG asked IEPA to justify requiring a 10% reduction for this situation. *Id*. IERG further asked how many new sources with boilers and/or process heaters venting to a common stack will be required by Section 217.157(d) to comply using an EAP, due to the lower 50 mmBtu/hr applicability for

boilers and process heaters. *Id*. at 5. IEPA confirmed that boilers and heaters venting to a common stack must comply using an EAP, but that the Agency also proposed revisions to Section 217.157(d). IEPA Resp. at 9; PC 3. IEPA is aware of at least two sources with common stack units covered by an EAP, and it believes "[t]here should be no newly subject sources under this scenario if the Agency's proposed revisions set forth in its Third Post-Hearing Comments are adopted by the Board." *Id*. at 9-10.

At the second hearing, Energy Transfer – the parent company of Panhandle Eastern Pipeline (Panhandle) – stated that Panhandle owns and operates several natural gas compressor stations in Illinois. Tr. 2 at 29. The stations are not located in the NAAs but are subject to Subpart Q because they have engines listed in Part 217 Appendix G. *Id*. Energy Transfer currently demonstrates compliance using an EAP and stated that the proposed rules will require significant changes to its plan, particularly the 30-rolling average based on operating days and the reduction in total allowable NO_x emissions. *Id*. Energy Transfer asked IEPA to clarify the due date for submitting a new EAP in compliance with the proposed Section 217.390(b)(5). *Id*. at 30. IEPA stated that on and after May 1, 2025, an owner or operator must submit the EAP at least 30 days before using that plan to demonstrate compliance. PC 7 at 7. For example, "if an owner or operator plans to begin using an emissions averaging plan on May 1, 2025, to demonstrate compliance, the owner or operator must submit such plan to the Agency by April 1, 2025." *Id*.

Energy Transfer noted the two annual reports required by the proposed rules – the emissions report for EAPs due on January 31 under Section 217.396(c)(4-5), and the compliance certification due May 1 under Section 217.396(c)(5). *Id*. at 31. Because the proposed rules allow the compliance certification to be submitted with the EAP report, Energy Transfer asked if the Agency could consider changing the deadline for both to May 1. *Id*. As noted above, IEPA agreed and applied the request to both Subpart D and Subpart Q, with the proposed revisions described above under subsection (e).

Subpart E: Industrial Boilers

Section 217.160: Applicability

IEPA proposed to amend the heading of this section to "Applicability Exemptions." Prop. 217 at 36; *see* SR at 27.

Subsection (a)

Subsection (a) provides that "[t]he 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." 35 Ill. Adm. Code 217.160(a). IEPA proposed to strike this subsection. Prop 217 at 36; *see* SR at 27.

Subsection (c)

IEPA proposed to add a subsection (c) providing that, "[b]efore May 1, 2025, the

provisions of this Subpart do not apply to an industrial boiler operating under a federally enforceable limit of NO_x emissions from such boiler to less than 15 tons per year and less than five tons per ozone season." Prop. 217 at 37; *see* SR at 27.

Subsection (d)

IEPA confirmed that IERG had encouraged IEPA to keep "essential back-up fuel exemptions," and that it was considering suggested language provided by a potentially affected source. IERG Questions at 6; Tr. 1 at 46-47.

Based on continuing discussions with affected sources, IEPA proposed to further amend this section by adding a new subsection (d):

> On and after May 1, 2025, the provisions of this Subpart, except for recordkeeping and reporting requirements, do not apply to an industrial boiler when (1) backup distillate fuel oil is used in lieu of natural gas during periods of natural gas curtailment or gas supply interruption; or (2) during periods of periodic testing and maintenance of backup fuels or operator training, not exceeding 48 hours in a calendar year. PC 1 at 5, 9.

IEPA stated this provision is similar to provisions under the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. *Id*. at 5. "Periods of natural gas curtailment or gas supply interruption" are periods during which the supply of gaseous fuel to an industrial boiler is restricted or halted for reasons beyond the control of the source. *Id*.

Section 217.162: Exemptions

Section 217.162 provides that, "[n]otwithstanding Section 217.160 of this Subpart, the provisions of this Subpart do not apply to an industrial boiler operating under a federally enforceable limit of NO_x emissions from such boiler to less than 15 tons per year and less than five tons per ozone season." 35 Ill. Adm. Code 217.162. IEPA proposed to repeal this section "because its provisions are now set forth in Section 217.160." SR at 27; *see* Prop. 217 at 37.

Section 217.164: Emissions Limitations

Section 217.164(a) first provides that, "[e]xcept as provided for under Section 217.152, on and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any industrial boiler to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis." 35 Ill. Adm. Code 217.164(a). IEPA first proposed to amend this subsection by providing that the requirement to demonstrate compliance applies until May 1, 2025. SR at 27; *see* Prop. 217 at 37.

IEPA also proposed to amend subsection (a) by adding that, "[o]n and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis." Prop. 217 at 37; *see* SR at 27.

In addition, IEPA proposed that, beginning May 1, 2025, the threshold for an industrial boiler subject to an emissions limitation is lowered from greater than 100 mmBtu/hr to greater than 50 mmBtu/hr. Prop. 217 at 38-39; *see* SR at 13, 27; TSD at 7. This proposed revision responds to USEPA's recommendation to be consistent with approved RACT rules in the other Region 5 states of Ohio and Michigan. TSD at 7, citing Mich. Adm. Code R 336.181 *et seq*. OAC Ann. 3745-110-01 *et seq*. IEPA reported that there are four to eight boilers in the two NAAs that are between 50 to 100 mmBtu/hr heat input capacity and emit 15 tons or more of NO_x per year. TSD at 7. IEPA added that its 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." *Id*.

The Board asked IEPA why there was a wide range in the number of affected boilers. Board Questions at 9. IEPA asserted this range reflects relatively few boilers in the NAAs, rather than a wide range. Tr. 1 at 80. It also reflects "the extent to which certain sources or units may or may not be subject to the Part 217 limits if a source were to limit emissions below an applicability threshold." *Id*. at 80-81.

The Board also asked IEPA whether all affected boilers use non-solid fuel. Board Questions at 10. IEPA stated that based on available information, no subject boilers in the NAAs combust solid fuels. Tr. 1 at 81.

The Board asked IEPA how many affected boilers currently have pre-combustion controls such as Low NO_x Burners (LNB), Flue Gas Recirculation (FGR), or a combination of the two. Board Questions at 10. IEPA stated it does not have this data, as permits generally do not require those specific measures. Tr. 1 at 81-82.

IEPA also proposed, beginning May 1, 2025, the following NO_x emissions limitations for industrial boilers:

> [f]or 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. Prop. 217 at 38-39; *see* SR at 13, 27-28.

IEPA stated that current limits for non-solid fuels are based on pre-combustion controls such as LNB, FGR, or a combination of them. IEPA further asserted that current limits can also be met with Ultra Low NO_x Burners (ULNB). TSD at 7. IEPA argued that these controls are well-established 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." *Id*.

IEPA also proposed to lower emission limits for industrial boilers with a rated heat input capacity greater than 50 mmBtu/hr that combust solid fuel. TSD at 8. IEPA reported that the proposed limits are consistent with USEPA-approved RACT limits in the region. *Id*., citing Mich. Adm. Code R 336.181 *et seq*. OAC Ann. 3745-110-01 *et seq*. Based on information available to it, IEPA stated that "all subject boilers in both NAAs fire gaseous fuels (some units may have the ability to fire oil as a backup), and none combust solid fuels." TSD at 8.

IEPA proposed that "industrial boilers less than or equal to 50 mmBtu/hr are subject to combustion tuning requirements." SR at 27; *see* Prop. 217 at 38-39.

Section 217.166: Methods and Procedures for Combustion Tuning

Section 217.166 provides that

> [t]he 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. 35 Ill. Adm. Code 217.166.

It also requires that the owner maintain records specified in subsections (a) through (e) and make them available to IEPA. *Id*. IEPA first proposed to amend this section by limiting its applicability to "[u]ntil May 1, 2025." Prop. 217 at 40; *see* SR at 28.

IEPA also proposed to add a subsection (b) providing that,

> [o]n 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. Prop. 217 at 40; *see* SR at 13, 28.

Subpart F: Process Heaters

Section 217.180: Applicability

IEPA proposed to amend the heading of this section to "Applicability Exemptions." Prop. 217 at 40; *see* SR at 28.

Section 217.180 provides that "[t]he 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." 35 Ill. Adm. Code 217.180. IEPA proposed to strike this language and replace it with the provision that, "[b]efore May 1, 2025, the provisions of this Subpart do not apply to a process heater operating under a federally enforceable limit of NO_x emissions from such heater to less than 15 tons per year and less than five tons per ozone season." Prop 217 at 40; *see* SR at 28.

Section 217.182: Exemptions

Section 217.182 provides that, '[n]otwithstanding Section 217.180, the provisions of this Subpart do not apply to a process heater operating under a federally enforceable limit of NO_x emissions from such heater to less than 15 tons per year and less than five tons per ozone season." 35 Ill. Adm. Code 217.182. IEPA proposed to repeal this section "because its provisions are now set forth in Section 217.180." SR at 28; *see* Prop. 217 at 41.

Section 217.184: Emissions Limitations

Section 217.184 first provides that, "[e]xcept as provided for under Section 217.152, on or after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any process heater to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis." 35 Ill. Adm. Code 217.184. IEPA first proposed to amend this subsection by providing that the requirement to demonstrate compliance applies until May 1, 2025. SR at 28-29; *see* Prop. 217 at 41.

IEPA also proposed to amend this subsection by providing that, "[o]n and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis." Prop. 217 at 41; *see* SR at 29.

In addition, IEPA proposed that, beginning May 1, 2025, the threshold for a process heater subject to an emissions limitation is lowered from greater than 100 mmBtu/hr to greater than 50 mmBtu/hr. Prop. 217 at 42; *see* SR at 29; TSD at 8. IEPA reported that there are two to six process heaters in the two NAAs that are between 50 to 100 mmBtu/hr heat input capacity and emit 15 tons or more of NO_x per year. TSD at 8. IEPA added that its 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." *Id*.

The Board asked IEPA why there is a wide range in the number of heaters. Board Questions at 10. IEPA asserted this range reflects relatively few units in the NAAs, rather than a wide range, for the same reasons as the range for boilers. Tr. 1 at 82. The Board also asked IEPA to detail the type of controls, if any, that the affected heaters currently have. Board Questions at 10. IEPA stated it does not have this data. Tr. 1 at 83. The Board further asked IEPA whether affected heaters without controls will rely on EAPs to comply with the applicable limitations. Board Questions at 10. IEPA stated at least two of the affected units are at a source that currently uses an EAP. Tr. 1 at 83.

IEPA also proposed, beginning May 1, 2025, the following NO_x emissions limitations for process heaters:

> [f]or 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. Prop. 217 at 42; *see* SR at 29.

Noting IEPA's statement that "[t]he 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" (TSD at 9), the Board asked IEPA to explain how the Part 217 process heater limits compare with those in Ohio. Board Questions at 10. IEPA stated that Ohio does not appear to have RACT limits for process heaters as a defined category. Tr. 1 at 83-84.

IEPA emphasized that it "is not proposing to change the emission limitations in Subpart F." TSD at 8. It stated that the current limits represent pre-combustion controls including LNB or ULNB. *Id*. IEPA asserted that these are "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." *Id*. IEPA argued that, since "all units with heat input equal to or greater than 100 mmBtu/hr and NO_x 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." *Id*.

IEPA also proposed that "process heaters less than or equal to 50 mmBtu/hr are subject to combustion tuning requirements." SR at 29; *see* Prop. 217 at 42.

Section 217.186: Methods and Procedures for Combustion Tuning

Section 217.186 provides that

> [t]he 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. 35 Ill. Adm. Code 217.186.

It also requires that the owner maintain records specified in subsections (a) through (e) and make them available to IEPA. *Id*. IEPA first proposed to amend this section by limiting its applicability to "[u]ntil May 1, 2025." Prop. 217 at 43; *see* SR at 29.

IEPA also proposed to add a subsection (b) providing that,

> [o]n 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. Prop. 217 at 43; *see* SR at 29.

Subpart G: Glass Melting Furnaces

Section 217.200: Applicability

IEPA proposed to amend the heading of this section to "Applicability Exemptions." Prop. 217 at 43; *see* SR at 30.

Section 217.200 provides that "[t]he 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. IEPA proposed to strike this language and replace it with the provision that, "[b]efore May 1, 2025, the provisions of this Subpart do not apply to a glass melting furnace operating under a federally enforceable limit of NO_x emissions from such furnace to less than 15 tons per year and less than five tons per ozone season." Prop. 217 at 43-44; *see* SR at 30.

Section 217.202: Exemptions

Section 217.202 provides that, "[n]otwithstanding Section 217.200, the provisions of this Subpart do not apply to a glass melting furnace operating under a federally enforceable limit of NO_x emissions from such furnace to less than 15 tons per year and less than five tons per ozone season." 35 Ill. Adm. Code 217.202. IEPA proposed to repeal this section "because its provisions are now set forth in Section 217.200." SR at 30; *see* Prop. 217 at 44.

Section 217.204: Emissions Limitations

Subsection (a)

Section 217.204(a) provides that, "[o] and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any glass melting furnace to exceed the following limitations. Compliance must be demonstrated with the emissions limitation on an ozone season and annual basis." 35 Ill. Adm. Code 217.2014(a). IEPA first proposed to amend this subsection by providing that the requirement to demonstrate compliance applies until May 1, 2025. SR at 30; *see* Prop. 217 at 44.

IEPA also proposed to add language providing that, "[o]n and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis." Prop. 217 at 44; *see* SR at 30.

IEPA also proposed to add revised NO_x emissions limitations applicable on and after May 1, 2025 for glass melting furnaces: "[f]or 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." Prop. 217 at 44-45; *see* SR at 30.

IEPA stated that it proposed to lower these limits to those in the Good Neighbor FIP and "to better represent RACT in the state." TSD at 8-9. IEPA argued that "[t]hese limits reflect technically feasible and economically reasonable standard consistent with LNB for affected units

with an average cost-effectiveness estimate of $939 per ton of NO_x." *Id*. at 9 (citation omitted). IEPA emphasized that there are only two subject units in the state, both in the Chicago NAA. Although neither unit is subject to the Good Neighbor FIP because they do not meet its applicability threshold, they "will likely be able to comply with the proposed limits without needing additional control." *Id*. at 9.

IEPA added that one of the sources is also subject to a consent decree that requires significantly lower NO_x emissions than the proposed limits. TSD at 9; Tr. 1 at 84-85, citing U.S. and Commonwealth of Mass. v. Saint-Gobain Containers, Inc., 10-121z (W.D. Wash.) (May 7, 2010). The limit is a 30-day rolling average of 1.3 pounds of NO_x per ton of glass produced, as measured using a NO_x CEMS where available. Tr. 1 at 84. As to the second subject source, IEPA stated a consent decree was entered on September 18, 2024, in People v. Gerresheimer Glass, Inc., 24-CH-384 (Cook County). IEPA confirmed it did not recommend new NO_x limits because the consent decree requires compliance with existing NO_x limits in the source's permit. Board Questions at 10; Tr. 1 at 85.

The Board asked IEPA whether the Subpart G NO_x limits should be lowered to be consistent with the source operating under the consent decree. Board Questions at 10. IEPA stated it does not recommend this change, as the Subpart G NO_x limits represent RACT. Tr. 1 at 85. The Agency is proposing to lower the current emission limit for container glass from 5.0 to 4.0 pounds per ton of glass produced, as set forth in the Good Neighbor Plan for the 2015 ozone NAAQS. *Id*. at 85-86.

Subsection (b)

Subsection (b) addresses emissions during glass melting furnace startup and furnace idling. *See* 35 Ill. Adm. Code 217.204(b). IEPA proposed to amend it by limiting its applicability to "[b]efore May 1, 2025." Prop. 217 at 45; *see* SR at 30.

Subpart H: Cement and Lime Kilns

Section 217.220: Applicability

IEPA proposed to amend the heading of this section to "Applicability Exemptions." Prop. 217 at 45; *see* SR at 30.

IEPA also proposed to strike the existing applicability provisions and replacing them with language providing that, "[b]efore May 1, 2025, the provisions of this Subpart do not apply to a cement kiln or lime kiln operating under a federally enforceable limit of NO_x emissions from such kiln to less than 15 tons per year and less than five tons per ozone season." Prop. 217 at 45; *see* SR at 30-31.

Section 217.222: Exemptions

Section 217.222 provides that, "[n]otwithstanding Section 217.220, the provisions of this Subpart do not apply to a cement kiln or lime kiln operating under a federally enforceable limit

of NO_x emissions from such kiln to less than 15 tons per year and less than five tons per ozone season." 35 Ill. Adm. Code 217.222. IEPA proposed to repeal this section "because its provisions are now set forth in Section 217.220." SR at 31; *see* Prop. 217 at 45-46.

Section 217.224: Emissions Limitations

Subsection (a)

Subsection (a) provides that, "[o]n and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any cement kiln to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis." 35 Ill. Adm. Code 217.224(a). IEPA first proposed to amend this subsection by providing that the requirement to demonstrate compliance applies "[u]ntil May 1, 2025." Prop. 217 at 46; *see* SR at 31.

IEPA also proposed that, "[o]n and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis." Prop. 217 at 46; *see* SR at 31.

IEPA also proposed to add revised NO_x emissions limitations applicable on and after May 1, 2025 for cement kilns: "[f]or 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." Prop. 217 at 46; *see* SR at 31

Although IEPA proposes revised emission limits reflecting the Good Neighbor FIP, it stated that "there are no subject units in either NAA in Illinois." TSD at 9. IEPA added that "[a]ny new units in this source category would be subject to the requirements 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." *Id.*

Subsection (b)

Subsection (b) provides that, "[o]n and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any lime kiln to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis." 35 Ill. Adm. Code 217.224(b). IEPA first proposed to amend this subsection by providing that the requirement to demonstrate compliance applies "[u]ntil May 1, 2025." Prop. 217 at 46; *see* SR at 31.

IEPA also proposed that, "[o]n and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis." Prop. 217 at 46; *see* SR at 31.

Subpart I: Iron and Steel and Aluminum Manufacturing

Reheat, annealing, and galvanizing furnaces are used by integrated iron and steel plants. "Slabs, billets, and blooms from a continuous caster are typically reheated to a suitable working temperature in a reheat furnace" before additional shaping. TSD at 9. "Reheat furnaces are high temperature, fossil fuel-burning furnaces that are sources of NO_x emissions." *Id*. "Ingots are typically heated in soaking pits" before additional processing. *Id*.

After steel comes out of a reheat furnace or soaking pit, it can undergo additional processing in an annealing or galvanizing furnace. TSD at 9. "Annealing consists of subjecting steel to a carefully controlled thermal cycle to relieve stresses induced by hot and cold working." *Id*. Steel products are sometimes annealed "to enhance some physical properties of the product." *Id*. Galvanizing coats steel with zinc, aluminum, or other alloys and protects steel from corrosion. *Id*.

"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 exhaust gases to improve thermal efficiency." TSD at 9. This improved efficiency generally reduces total NO_x emissions because heat input per unit output is reduced. *Id*. (citation omitted).

Section 217.240: Applicability

IEPA proposed to amend the heading of this section to "Applicability Exemptions." Prop. 217 at 47; *see* SR at 31.

IEPA also proposed to strike the existing applicability provisions under subsections (a) and (b) and replacing them with language providing that, "[b]efore May 1, 2025, the provisions of this Subpart do not apply to an iron and steel reheat furnace, annealing furnace, or galvanizing furnace, or aluminum reverberatory furnace or crucible furnace operating under a federally enforceable limit of NO_x emissions from such furnace to less than 15 tons per year and less than five tons per ozone season." Prop. 217 at 47; *see* SR at 31-32.

Section 217.242: Exemptions

Section 217.242 provides that, "[n]otwithstanding Section 217.240, the provisions of this Subpart do not apply to an iron and steel reheat furnace, annealing furnace, or galvanizing furnace, or aluminum reverberatory furnace or crucible furnace operating under a federally enforceable limit of NO_x emissions from such furnace to less than 15 tons per year and less than five tons per ozone season." 35 Ill. Adm. Code 212.242. IEPA proposed to repeal this section "because its provisions are now set forth in Section 217.240." SR at 32; *see* Prop. 217 at 47.

Section 217.244: Emissions Limitations

Subsection (a)

Subsection (a) provides that, "[o] and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any reheat furnace, annealing furnace, or galvanizing furnace used in iron and steel making to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis." 35 Ill. Adm. Code 217.244(a). IEPA first proposed to amend this subsection by providing that the requirement to demonstrate compliance applies "[u]ntil May 1, 2025." Prop. 217 at 48; *see* SR at 32.

IEPA also proposed that, "[o]n and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis." Prop. 217 at 48; *see* SR at 32.

IEPA also proposed to add revised NO_x emissions limitations applicable on and after May 1, 2025 for iron and steel reheat furnaces, annealing furnaces, and galvanizing furnaces as follows: "[f]or 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." SR at 32; *see* Prop. 217 at 48-49; SR at 13.

IEPA did not propose to change existing limits for cold air furnaces. TSD at 10; *see* 35 Ill. Adm. Code 217.244(a); Prop. 217 at 48-49.

IEPA proposed an emission limit of 0.09 lb/mmBtu for reheat furnaces (regenerative and recuperative), which is the existing limit for recuperative furnaces that burn natural gas. *Id.* IEPA proposed to eliminate the existing specific limits of 0.18 lb/mmBtu for regenerative reheat furnaces and 0.142 lb/mmBtu for recuperative reheat furnaces combusting a combination of natural gas and coke oven gas. *Id.* "[F]urnaces that would have been subject to those unit categories will now be subject to the more general limit of 0.09 lb/mmBtu." TSD at 10.

The existing limit for regenerative annealing furnaces is 0.38 lb/mmBtu and for recuperative annealing furnaces is 0.16 lb/mmBtu. The existing limit for regenerative galvanizing furnaces is 0.46 lb/mmBtu and for recuperative galvanizing furnaces is 0.16 lb/mmBtu. 35 Ill. Adm. Code 217.244(a). IEPA proposed a limit of 0.08 lb/mmBtu for both regenerative and recuperative annealing and galvanizing furnaces. TSD at 10; *see* Prop. 217 at 49. "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." TSD at 10.

IEPA asserted that its proposed limits reflect control efficiencies achieved with LNB or LNB and FGR. TSD at 10. IEPA also asserted that these limits are consistent with other Region 5 states that have adopted rules or that have approved NO_x RACT rules. *Id.*, citing OAC Ann.

3745-110-01 *et seq*., Wis. Adm. Code NR 428.20 *et seq*. For units subject to Subpart I and using LNB or LNB and FGR, IEPA estimated control costs between $520 and $1301 per ton. TSD at 10 (Citation omitted).

Based on its research and outreach, IEPA indicated that "all subject units in this source category are reheat furnaces for which there is no proposed change to the existing emission limit." TSD at 10. IEPA asserted that these units can continue complying without implementing additional controls or by using an EAP. *Id*.

The Board noted IEPA's statement that "[a]ny new units in this source category would be subject to the requirement to obtain a construction permit. It is unlikely that any new sources would be authorized to construct in either NAA without being subject to standard that would be more stringent than RACT." Board Questions at 10, citing TSD at 9. The Board asked IEPA to explain the rationale. Board Questions at 11. IEPA asserted that a new source applying for a permit to construct a cement or lime kiln in NAAs would be subject to nonattainment New Source Review. Tr. 1 at 86. This involves the source meeting the lowest available emission rate (LAER), which is generally the most stringent emission limit for a particular category. *Id*.

Subsection (b)

Subsection (b) provides that, "[o]n and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any reverberatory furnace or crucible furnace used in aluminum melting to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis." 35 Ill. Adm. Code 217.244(b). IEPA first proposed to amend this subsection by providing that the requirement to demonstrate compliance applies "[u]ntil May 1, 2025." Prop. 217 at 49; *see* SR at 32.

IEPA also proposed that, "[o]n and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis." Prop. 217 at 49; *see* SR at 32.

Subpart M: Electrical Generating Units

Section 217.340: Applicability

IEPA proposed to amend the heading of this section to "Applicability and Exemptions." Prop. 217 at 49; *see* SR at 32.

Section 217.340 provides that,

> [n]otwithstanding 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. 35 Ill. Adm. Code 217.340.

IEPA first proposed to strike the reference to Subpart W, "NO_x Trading Program for Electrical Generating Units." Prop. 217 at 49.

IEPA also proposed to add a subsection (b) providing that, "[b]efore May 1, 2025, the provisions of this Subpart do not apply to a fossil fuel-fired stationary boiler operating under a federally enforceable limit of NO_x emissions from such boiler to less than 15 tons per year and less than five tons per ozone season." Prop. 217 at 49; *see* SR at 32.

Section 217.342: Exemptions

Section 217.342 in subsection (a) through (c) establishes exemptions from the requirements of Subpart M. 35 Ill. Adm. Code 217.342. IEPA proposed to repeal this section "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." SR at 33; *see* Prop. 217 at 50.

Section 217.344: Emissions Limitations

Section 217.344 provides that, "[o]n and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any fossil fuel-fired stationary boiler to exceed the following limitations. Compliance must be demonstrated with the applicable emissions limitation on an ozone season and annual basis." 35 Ill. Adm. Code 217.344. IEPA first proposed to amend this subsection by providing that the requirement to demonstrate compliance on an ozone season and annual basis applies "[u]ntil May 1, 2025." Prop. 217 at 50; *see* SR at 33.

IEPA also proposed that, "[o]n and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis." Prop. 217 at 50; *see* SR at 33.

Although IEPA proposed to amend Section 217.150 by revising the source-wide applicability threshold from 100 tpy to 50 tpy for units in this and other categories, it reported that "there are no subject EGU boilers in either NAA in Illinois." TSD at 10. IEPA added that it has not proposed to amend existing emissions limits. TSD at 10; *see* Prop. 217 at 50.

Subpart Q: Stationary Reciprocating Internal Combustion Engines and Turbines

RICE

Process. A reciprocating internal combustion engine (RICE) can be diesel-, gasoline-, or natural gas-fueled. TSD at 11. "In a RICE, the fuel is compressed in a small volume and ignited, creating pressure that pushes pistons through its cylinders." *Id*. "RICE are significant

sources of NO_x because they burn fuel at high temperature and pressure, which cause the nitrogen and oxygen in the air that sustains the combustion to unite and form the various oxides of nitrogen that constitute NO_x." *Id*. Because thermal NO_x is the main mechanism through which RICE form NO_x, "[r]educing peak combustion temperatures and pressures are therefore effective in reducing NO_x emissions from RICE." *Id*., citing Fast-Track Rules Under Nitrogen Oxide (NO_x) SIP Call Phase II: Amendments to 35 Ill. Adm. Code Section 201.146, Parts 211 and 217, R07-18 (Apr. 6, 2007 (IEPA TSD).

RICE use one of two types of ignition: compression ignition (CI) or spark ignition (SI). TSD at 11. Diesel-fueled engine use CI. "In CI, air is heated in the cylinder and diesel fuel is pumped into the heated and pressurized cylinder, igniting spontaneously." *Id*. SI ignition starts with an electric discharge. "All reciprocating natural gas-fueled engines use SI." *Id*.

A reciprocating engine has either a four-stroke or two-stroke operating cycle. "A typical automotive engine uses a four-stroke cycle of intake, compression, power, and exhaust." TSD at 11. Two-stroke engines combine intake and compression into a single stroke and power and exhaust into a second. *Id*.

Two other parameters that affect emissions are the air-to-fuel ratio and exhaust oxygen content. TSD at 11. "Lean-burn engines have a higher air-to-fuel ratio and typical exhaust oxygen concentrations of greater than one percent." *Id*. Rich-burn engines generally operate with air-to-fuel ratio near stoichiometric and exhaust oxygen concentrations of one percent or less. *Id*. Natural gas-fueled RICE can be categorized as four-stroke rich-burn (4SRB), four-stroke lean-burn (4SLB), and two-stroke lean-burn (2SLB). *Id*. To control NO_x emissions, each of these categories requires separate pre-combustion control technology. *Id*.

Control Technology. For RICE, "both combustion controls and post-combustion catalytic reduction technologies can reduce NO_x emissions." TSD at 12. Combustion controls are referred to as layered combustion, which "function by modifying the combustion process to influence oxygen availability and peak flame temperature." *Id*. Layered combustion includes various methods that "decrease NO_x emissions from RICE by altering the intake, compression, and/or power strokes of the cylinder power cycle." TSD at 12. These 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." *Id*. The combination of turbochargers and inter-cooling with pre-chamber or high-energy ignition may be referred to as Low Emission Combustion (LEC). *Id*. IEPA asserts that these methods "can provide maximum NO_x control of 85-90% compared to uncontrolled emissions." *Id*., citing USEPA Point and Non-Point NO_x Menu of Control Measures - Updated September 22, 2022 (https://www.epa.gov/sites/default/files/2016-02/documents/menuofcontrolmeasures.pdf).

In rich-burn engines, lowering the air-to-fuel ratio limits the availability of oxygen in the cylinder, which decrease NO_x emissions by lowering peak flame temperature and producing a reducing atmosphere. TSD at 12. "In lean-burn engines, increasing the A/F ratio decreases NO_x emissions. Extra air dilutes the combustion gases, thus lowering peak flame temperature and reducing thermal NO_x formation." *Id*. IEPA asserts that applying this method alone "can reduce

emission of NO_x up to 40% from uncontrolled levels." *Id*., citing Alternative Control Techniques Document – NO_x Emission from Stationary Reciprocating Internal Combustion Engines, EPA-453/R-93-032 (July 1993); Fast-Track Rules Under Nitrogen Oxide (NO_x) SIP Call Phase II: Amendments to 35 Ill. Adm. Code Section 201.146, Parts 211 and 217, R07-18 (Apr. 6, 2007 (IEPA TSD).

IEPA asserted that, when it developed the current RICE limits, it "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." TSD at 12. IEPA stated that it "retains these emission limits and continues to view optimized layered combustion as the appropriate NO_x RACT control technology." *Id*. at 12-13.

For diesel engines, layered combustion techniques cannot be applied to controlling NO_x because of "the careful control of air-to-fuel ration and fuel injection required in designing and operating CI engines." TSD at 12. Diesel engines can use ignition timing retard (ITR) to control NO_x emissions. *Id*. at 12, 13. ITR moves the ignition event "to later in the power stroke when the piston has begun to move downward" and the combustion chamber volume is not at its minimum. *Id*. at 13. This reduces peak flame temperature by delaying the onset of combustion and reduces the formation of thermal NO_x. *Id*. at 12, citing Alternative Control Techniques Document – NO_x Emission from Stationary Reciprocating Internal Combustion Engines, EPA-453/R-93-032 (July 1993).

IEPA stated that ITR can be applied to all engines. TSD at 13. In SI engines, it changes the timing of the spark, and in CI engines it changes the timing of the fuel injection. *Id*. IEPA added that "ITR is the sole pre-combustion NO_x control that is applicable to CI engines."

Emission reductions from ITR vary, "depending upon the engine design and operating conditions, and particularly on the air/fuel ratio." TSD at 13. IEPA added that limitations on the extent to which ignition may be delayed also affect reductions, because retarding excessively results in engine misfire. *Id*. ITR also normally reduces fuel efficiency. *Id*. "For CI engines, achievable emissions reductions vary from 20-30 percent." *Id*., citing Alternative Control Techniques Document – NO_x Emission from Stationary Reciprocating Internal Combustion Engines, EPA-453/R-93-032 (July 1993); Fast-Track Rules Under Nitrogen Oxide (NO_x) SIP Call Phase II: Amendments to 35 Ill. Adm. Code Section 201.146, Parts 211 and 217, R07-18 (Apr. 6, 2007 (IEPA TSD). For SI engines, IEPA considers ITR as "superseded by the layered combustion technologies that are to be RACT." TSD at 13.

Post-combustion control strategies for RICE are selective catalytic reduction (SCR) and non-selective catalytic reduction (NSCR). TSD at 12. SCR is the catalyzed reduction of NO_x with injected ammonia." *Id*. at 14. IEPA stated that SCR applies "only to lean-burn engines with greater than approximately one percent exhaust oxygen, as oxygen is a reagent in the selective reduction reaction." *Id*. IEPA asserted that SCR "can reduce NO_x emissions from 4SLB engines by greater than 90%, leading to NO_x emissions as low as 1.5 g/bhp-hr (approximately equal to 105 ppm)." *Id*.

NSCR "uses a three-way catalyst to promote the reduction of NO_x to nitrogen and water. Exhaust CO and hydrocarbons (HC) are simultaneously oxidized to carbon dioxide and water." TSD at 14. NCSR can be applied 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_x present." NCSR can control emissions below 1 g/bhp-hr, which is approximately equivalent to 70 ppm and corresponds to emissions reductions greater than 90 percent. *Id*. IEPA added that "NSCR retrofits, in addition to the catalyst and catalyst housing, require installation of an oxygen sensor and feedback controlled to maintain appropriate A/F ratio under variable load conditions." *Id*., citing Alternative Control Techniques Document – NO_x Emission from Stationary Reciprocating Internal Combustion Engines, EPA-453/R-93-032 (July 1993); Fast-Track Rules Under Nitrogen Oxide (NO_x) SIP Call Phase II: Amendments to 35 Ill. Adm. Code Section 201.146, Parts 211 and 217, R07-18 (Apr. 6, 2007) (IEPA TSD).

RACT Determination. IEPA asserted that RACT for natural gas-fired RICE is optimizing layered combustion controls. TSD at 14. It added that this determination has not changed since the Board adopted Part 217 emissions limits applicable to the source category. *Id*. IEPA added that it has not proposed to changed emission limits in 35 Ill. Adm. Code 217.388(a)(1)(B). *Id*.

For existing 2SLB engines, which under 35 Ill. Adm. Code 217.388 are synonymous with "existing spark-ignited Worthington engines," IEPA considers the current limit of 365 ppm in 35 Ill. Adm. Code 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_x reduction potential within the two NAAs achievable from improved pre-combustion control technologies on these engines." TSD at 15.

"[E]xisting 2SLB engines that are greater than 1000 bhp power output and employed in pipeline transmission 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." TSD at 15, citing 88 Fed. Reg. 36654 (June 5, 2023). IEPA noted that "there may be considerable delay in installing additional controls for this category of engine due to supply chain and vendor availability issues." *Id*. (citation omitted).

IEPA proposed to lower the emissions limit for CI RICE at 35 Ill. Adm. Code 217.388 (a)(1)(D) "from 660 to 210 ppm for diesel engines that are constructed on and after May 1, 2025." TSD at 15. IEPA asserted that the lower limit "corresponds to post-combustion controls, as opposed to the prior assumed control technology of ITR." *Id*. (citations omitted). Although IEPA determined the current limit for this category to be RACT for existing engines, it asserted that "[n]ew engines that meet this lower limit are commercially available." IEPA added that data on retrofitting existing units does not apply to new units. *Id*.

The Board noted the proposal to lower the emission limit for diesel engines constructed on and after May 1, 2025. Board Questions at 11, citing TSD at 15. The Board also noted that "the current limit for the category has been determined by the Agency to be RACT for existing engines." *Id*. The Board observed that "the changes proposed to Section 217.388(a)(1)(D) do not reflect this proposed intent for existing engines." Board Questions at 11. The Board asked IEPA to clarify this proposed subsection and, if necessary, propose rule language clearly

reflecting that existing diesel engines are subject to a limit of 660 ppmv after May 1, 2025. *Id.* IEPA intends that existing units will be subject to a limit of 600 ppmv before and after May 1, 2025, and new engines will be subject to a limit of 210 ppmv on and after May 1, 2025. Tr. 1 at 87.

Potentially Affected Sources. IEPA indicated that the Chicago NAA includes has "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_x per year." TSD at 15. IEPA added that "22 of those units are diesel-fired CI RICE, and 36 units are natural gas-fired SI RICE." IEPA projects that "a great majority of these units will not be subject to the limitations in [35 Ill. Adm. Code] 217.388(a)(1) because they will be operated as low usage units pursuant to [35 Ill. Adm. Code] 217.388(a)(3)(B)(i)." *Id.*

IEPA added that only 11 potentially affected SI RICE units in the Chicago NAA "emitted more than seven tons on NO_x in any of the years 2020, 2021, and 2022." TSD at 16. IEPA added that "[n]ine of those units will also be subject to the Good Neighbor FIP ozone season NO_x 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." *Id.*

In the Metro East NAA, IEPA stated "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_x have emitted more than two tons of NO_x in any of the years 2020, 2021, and 2022." TSD at 15. IEPA's review of these sources indicated that "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)." *Id.*

Stationary Turbines

Process. In turbines, "air flows through compressor blades to the combustor, in which fuel is added to the air stream." TSD at 11. "[C]ombustion generates a high-temperature gas which enters the turbines and drives the compressor. Energy from the hot expanding gases is then recovered in the form of shaft horsepower, and the balance of recovered shaft energy is available to drive external load units." *Id.*

> The heat content of gases exiting the turbine can either be discarded without 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). *Id.*

In turbines firing natural gas or distillate oil, thermal NO_x is the principal type of NO_x formed. TSD at 12. Thermal NO_x most often forms "in high temperature stoichiometric flame pockets downstream of fuel injectors where combustion air has mixed sufficiently with the fuel to produce the peak fuel/air interface." *Id.* Maximum thermal NO_x production occurs "at a

slightly fuel-lean mixture because of excess oxygen available for reaction." *Id.* Controlling stoichiometry is crucial to reducing thermal NO_x. Thermal NO_x generation "also decreases rapidly as the temperature drops below the adiabatic temperature (for a given stoichiometry)." *Id.* Reducing the generation of thermal NO_x can be achieved by controlling both the combustion temperature and stoichiometry. *Id.*

Oil-fueled turbines "also produce NO_x from the nitrogen content of the fuel." TSD at 12. During combustion, "nitrogen can react with oxygen to produce NO_x." *Id.*, citing Fast-Track Rules Under Nitrogen Oxide (NO_x) SIP Call Phase II: Amendments to 35 Ill. Adm. Code Section 201.146, Parts 211 and 217, R07-18 (Apr. 6, 2007 (IEPA TSD).

Control Technology. For turbines, "both combustion controls and post-combustion catalytic reduction technologies can reduce NO_x emissions." TSD at 12. "For turbines, water or steam injection and dry low-NO_x combustors are combustion control technologies used to reduce NO_x emissions." *Id.* Post-combustion control strategies for turbines are SCR and NSCR. *Id.*

For turbines, water/steam injection "lowers peak flame temperature by providing an inert diluent, limiting thermal NO_x formation." TSD at 13. It may inject water directly into the turbine combustor or convert it to steam using turbine exhaust waste heat and then inject it into the combustor. *Id.* Increasing water-to-fuel ratios to reduce emissions limits NO_x control capabilities. "High water-to-fuel ratios result in increased hydrocarbon and greatly increase CO emissions." *Id.* Also, heating injected water consumes energy, which may decrease turbine fuel efficiency. *Id.* IEPA added that "[w]et injection may increase required turbine maintenance because of pressure oscillations or erosion caused by contaminants in the feed water." *Id.* (citations omitted).

For natural gas-fired turbines, IEPA reported that "controlled emissions levels of 25-42 ppm are attainable with water or steam injection." TSD at 13. For distillate oil-fired turbines, it reports that "controlled emissions of 42-110 are attained with similar water-to-fuel ratios." *Id.* IEPA argues that the lower values in these ranges represent the maximum level of NO_x control for this technology, corresponding to emission reductions greater than 90 percent. *Id.*

IEPA stated that, although dry low-NO_x (DLN) combustors include different technologies, "[l]ean premixed combustion is the commercially available technology that affords the largest NO_x reductions." TSD at 13. It provides air to the combustion chamber, which lowers peak temperature. *Id.* Retrofitting turbines for lean premixed combustion presents difficulties. Because these combustors reduce only the generation of thermal NO_x, "they are less effective on oil-fired than on gas-fired turbines." *Id.* at 14. The retrofits may require modifying the combustor, except in the case of silo combustors external to the body of the turbine. *Id.* For oil-fired turbines, water/steam injection achieves comparable reductions without retrofitting combustors. *Id.*

In gas-fired turbines using DLN combustors, controlled emission levels range from 9-25 ppm, which corresponds to NO_x emissions reductions of greater than 95 percent. TSD at 14. IEPA stated that only high turbine loads attain maximum reductions. With low loads and reduced feed requirements, IEPA stated that "premixing would yield air/fuel mixtures near the

lean flammability limit, with resulting flame instability" and high CO emissions. *Id*.

For post-combustion controls, IEPA asserted that NSCR is "not feasible for turbines." TSD at 14. For turbines using SCR, achievable NO_x emissions exceed 95 percent, "which corresponds to controlled emissions below 10 ppm and 25 ppm for gas-fired and oil-fired turbines, respectively." *Id*. IEPA asserted that combining SCR with pre-combustion controls can achieve emissions as low as 2 ppm. *Id*. IEPA stated that retrofitting turbines with SCR involves installing the reactor and catalyst, a system for ammonia storage and distribution, and a control system for variable load operation. *Id*. (citations omitted).

RACT Determination. In 35 Ill. Adm. Code 217.388(a)(1)(E) and (F), IEPA proposed to lower emissions limits for gas-fired and oil-fired turbines to 25 and 65 ppm, respectively. TSD at 15. IEPA argues that its proposed revision for 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." *Id*. It further argues that its proposed revision for oil-fired turbines "corresponds to an assumed control technology of the installation and/or optimization of water or steam injection." *Id*. (citations omitted).

Potentially Affected Sources. IEPA indicated that the Chicago NAA includes 51 turbines "with power output equal to or greater than 3.5 MW located at nine sources emitting equal to or greater than 50 tons of NO_x per year." TSD at 16. Forty-six of those "are EGUs at facilities strictly generating electricity with multiple units at each facility." *Id*. Based on its review and outreach, IEPA asserted that those units can likely comply with the proposed limits, "either on a unit basis without additional control or by using an EAP." *Id*. IEPA added that the five units not at EGUs are at three industrial facilities. IEPA asserted that these sources "will be able to comply using an EAP or may require additional control." *Id*.

Section 217.386: Applicability

Subsection (a)

Subsection (a) establishes applicability criteria for this Subpart. 35 Ill. Adm. Code 217.386(a). 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, which are not located in the NAAs. SR at 12.

IEPA proposed to amend this subsection by providing that these criteria apply "[b]efore May 1, 2025." Prop. 217 at 51; *see* SR at 33.

Subsection (a-5)[11]

IEPA proposed a new subsection (a-5) providing that,

[11] For first-notice publication, this subsection was designated (b) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11527-28 (Aug. 9, 2024).

[o]n 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_x in an amount equal to or greater than 50 tons per year and is in either the area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County, or in the area composed of the Metro-East counties of Madison, Monroe, and St. Clair, where:

A) The engine at nameplate capacity is rated at equal to or greater than 500 bhp output; or

B) The turbine is rated at equal to or greater than 3.5 MW (4,694 bhp) output at 14.7 psia, 59 °F and 60 percent relative humidity. Prop. 217 at 51-52; *see* SR at 33-34.

Although the elements of a SIP for a moderate NAA must apply to sources that emit or have the potential to emit 100 tons or more of NO_x, IEPA proposed to lower the applicability threshold to 50 tpy. TSD at 10. IEPA reported that monitoring data indicated that both NAAs will be reclassified as serious after the attainment date of August 3, 2024. *Id*. IEPA asserted that lowering the threshold in this rulemaking "will obviate the need for an additional Board rulemaking in the near future." *Id*.

IERG asked whether IEPA would consider adding a new Subsection 217.386(a-5)(2)(C), identical to the applicability language in Subsection 217.150(a)(2)(B) for Subparts E, F, G, H, I, and M, "for the applicability of stationary RICE and turbines providing that an emission unit emits 15 tons or more of NO_x to the atmosphere per calendar year." Tr. 1 at 48. IEPA does not believe a 15-ton unit-level applicability threshold for engines and turbines is appropriate because many sources have multiple units that are identical or similar. PC 1 at 4. For example, a source that operates 12 turbines could potentially emit almost 180 tons of NO_x in a year and not be subject to Subpart Q limits. *Id*.

IERG further asked whether IEPA was amenable to proposed revisions to this section that would provide a 15-ton applicability threshold for engines and turbines on a "per source" basis rather than a "per unit" basis. *Id*. IEPA stated it was not currently amenable to the suggested revision at this time, and that no source had contacted the Agency indicating the revision was needed or helpful. IEPA Resp. at 12.

Subsection (b)

In its introduction, subsection (b) provides that, notwithstanding subsection (a)(2), an affected unit is not subject to the requirements of Subpart Q if the engine or turbine is or has been used in one of the ways described in subsections (1) through (5). 35 Ill. Adm. Code 217.386(b). IEPA first proposed to revise it by adding a reference to proposed new subsection (a-5)(2). Prop. 217 at 52; *see* SR at 34. IEPA also proposed to strike the phrase "or has been" so that a unit is not subject to the requirements of this Subpart if it "is" used in certain capacities. *Id*.

Subsection (b)(1) provides that, notwithstanding subsection (a)(2), an affected unit is not subject to the requirements of Subpart Q if it is "[u]sed as an emergency or standby unit as defined by 35 Ill. Adm. Code 211.1920." 35 Ill. Adm. Code 217.386(b)(1). IEPA proposed to amend it to provide that, "[h]owever, the owner or operator of such unit must comply with the recordkeeping requirement under Section 217.396(a)(12)." Prop. 217 at 52; *see* SR at 34. This provision "requires that if an 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." SR at 34.

Subsection (c)

Subsection (c) provides that, "[i]f an exempt unit ceases to fulfill the criteria specified in subsection (b) of this Section, 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." 35 Ill. Adm. Code 217.386(c). IEPA proposed to add language clarifying that, if a unit is no longer used for an exempt purpose, it is subject to the requirements of Subpart Q. SR at 34; *see* Prop. 217 at 52.

Subsection (d)

Subsection (d) provides that "[t]he 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) of this Section or becomes eligible for an exemption pursuant to subsection (b) of this Section." 35 Ill. Adm. Code 217.386(d). IEPA proposed to amend it to refer to the applicability criteria of proposed new subsection (a-5) in addition to subsection (a). SR at 34; *see* Prop. 217 at 52.

Subsection (e)

Subsection (e) provides that,

> [w]here a construction permit, for which the application was submitted to the Agency prior to the adoption of this Subpart, is issued that relies on decreases in emissions of NO_x from existing emission units for purposes of netting or emissions offsets, such NO_x decreases shall remain creditable notwithstanding

> any requirements that may apply to the existing emissions units pursuant to this Subpart. 35 Ill. Adm. Code 217.386(e).

IEPA proposed to delete this subsection because it "refers to an application for a construction permit submitted to the Agency prior to the adoption of Subpart D and that date was August 11, 2009. This subsection has no practical effect and is therefore being removed." SR at 24; *see* Prop. 217 at 52-53.

Subsection (f)

Following the hearings, IEPA proposed a new subsection (f) providing that on and after May 1, 2025, Subpart Q requirements will still apply to any engine or turbine that has even been subject to Section 217.388, "except for a combustion turbine that serves a generator that has a nameplate capacity greater than 25 Mwe and produces electricity for sale that does not meet the applicability criteria under Subpart Q." PC 2 at 4, 7. IEPA asserted that under the Climate and Equitable Jobs Act (CEJA), 415 ILCS 5/9.15, these turbines are required to permanently reduce all carbon dioxide equivalent and co-pollutant emissions to zero according to a statutory schedule, based upon the NO_x and sulfur dioxide emissions of the unit and the unit's geographic location. *Id*. The units will be excluded from Subpart Q's "once-in-always-in" provision because the CEJA limits are below the applicability threshold in the proposed rule. *Id.* IEPA will permit the units appropriately. *Id*.

Section 217.388: Control and Maintenance Requirements

Subsection (a)

Subsection (a) provides that,

> [o]n 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. 35 Ill. Adm. Code 217.388(a).

Subsection (a)(1)

Under subsection (a)(1), the owner or operator must "[l]imit the discharge from an affected unit into the atmosphere of any gases that contain NO_x" to limits specified in subsections (A) through (F). *Id*.

IEPA asserted that the existing and proposed RACT limits for RICE are equivalent to or more stringent "than those in Ohio and Wisconsin for all subject categories." TSD at 16, citing OAC Ann. 3745-110-01 *et seq*., Wis. Adm. Code NR 428.20 *et seq*. IEPA added that the proposed RACT limits for turbines are equivalent to or more stringent "than those of Michigan

and Ohio for all categories of subject turbines." TSD at 16, citing Mich. Adm. Code R 336.1801 *et seq*, OAC Ann. 3745-110-01 *et seq*.

Subsection (a)(1)(D) limits the discharge "to no more than 660 ppmv (corrected to 15 percent O_2 on a dry basis) for diesel engines." 35 Ill. Adm. Code 217.388(a)(1)(D). IEPA proposed to revise this language by providing that it applies "[b]efore May 1, 2025." Prop. 217 at 53; *see* SR at 35. IEPA also proposed to add language providing a revised limit of, "[o]n and after May 1, 2025, 210 ppmv (corrected to 15 percent O_2 on a dry basis) for diesel engines that are constructed on and after May 1, 2025." Prop. 217 at 53; *see* SR at 35.

Subsection (a)(1)(E) limits the discharge to "42 ppmv (corrected to 15 percent O_2 on a dry basis) for gaseous fuel-fired turbines." 35 Ill. Adm. Code 217.388(a)(1)(E). IEPA proposed to revise this language by providing that it applies "[b]efore May 1, 2025." Prop. 217 at 53; *see* SR at 35. IEPA also proposed to add language providing a revised limit of, "[o]n and after May 1, 2025, 25 ppmv (corrected to 15 percent O_2 on a dry basis) for gaseous fuel-fired turbines." Prop. 217 at 53; *see* SR at 35.

Subsection (a)(1)(F) limits the discharge to "96 ppmv (corrected to 15 percent O_2 on a dry basis) for liquid fuel-fired turbines." 35 Ill. Adm. Code 217.388(a)(1)(F). IEPA proposed to revise this language by providing that it applies "[b]efore May 1, 2025." Prop. 217 at 54; *see* SR at 35. IEPA also proposed to add language providing a revised limit of, "[o]n and after May 1, 2025, 65 ppmv (corrected to 15 percent O_2 on a dry basis) for liquid fuel-fired turbines." Prop. 217 at 54; *see* SR at 35.

IEPA asserted that "[t]he proposed emission limits for turbines reflect implementing control technology commensurate with water/steam injection or DLN." TSD at 16, citing Fast-Track Rules Under Nitrogen Oxide (NO_x) SIP Call Phase II: Amendments to 35 Ill. Adm. Code Section 201.146, Parts 211 and 217, R07-18 (Apr. 6, 2007 (IEPA TSD)), Alternative Control Techniques Document – NO_x Emissions from Stationary Gas Turbines, EPA-453/R-93-007 (Jan. 1993).

Subsection (a)(3)

Subsection (a)(3) establishes limitations for operating a unit as a low usage unit. 35 Adm. Code 217.388(a)(3). These 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)." *Id.*

Subsection (a)(3)(A) provides the first of two limitations under which a unit may qualify as a low usage unit:

> [t]he potential to emit (PTE) is no more than 100 TPY NO_x aggregated from all engines and turbines located at the source that are not otherwise exempt 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_x PTE limit is contained in a federally enforceable permit. 35 Ill. Adm. Code 217.388(a)(3)(A).

IEPA proposed to amend it to provide that it is applicable "[b]efore May 1, 2025." Prop. 217 at 54; *see* SR at 35; TSD at 16.

IEPA stated that USEPA has recommended that "using aggregate source-wide NO_x PTE from all engines and turbines combined at a source . . . is an inappropriate threshold for determining what constitutes low-usage units." TSD at 16. If the Board adopts its proposed revisions, IEPA stated that the source-wide applicability of 50 tpy in Section 217.386(a-5) would apply. *Id*. IEPA argues that the existing threshold in 35 Ill. Adm. Cod 217.388(a)(3)(B) "remains as an appropriate threshold for low-usage units aggregated at a source." *Id*.

The Board cited these statements from the TSD and asked IEPA "whether Section 217.388(a)(3)(A) should include language similar to proposed Section 217.390(a)(1)(A)(ii) to clarify that, on or after May 1, 2025, the threshold would be PTE of 50 TPY of NO_x." Board Questions at 11. IEPA confirmed it does not intend for Section 217.388(a)(3)(A) to be in effect on and after May 1, 2025. Tr. 1 at 89.

Subsection (b)

Subsection (b) provides for owners and operators to change the method of compliance with this Subpart, and subsection (b)(1) requires testing and monitoring. 35 Ill. Adm. Code 217.388(b). IEPA proposed to revise subsection (b)(1) by limiting applicability to "[b]efore May 1, 2025." Prop. 217 at 55; *see* SR at 35-36.

Section 217.390: Emissions Averaging Plans

Subsection (a)

Subsection (a) provides that "[a]n owner or operator of certain affected units may comply through an emissions averaging plan." 35 Ill. Adm. Code 217.390(a). Under subsection (a)(1)(A)(ii), the units include those "[l]ocated 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." 35 Ill. Adm. Code 217.390(a)(1)(A)(ii). IEPA proposed to amend this provision by limiting its applicability to "[b]efore May 1, 2025." Prop. 217 at 57; *see* SR at 35. IEPA also proposed to add language providing that affected units include,

> [o]n 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." Prop. 217 at 57; *see* SR at 35.

IEPA confirmed that IERG had requested the Agency allow "the use of emission equations in Section 217.390 which are already in place and required under 40 CFR Part 75 for

sources that already fall under those reporting requirements," and that the Agency would consider specific language to allow for alternative emission equations. IERG Questions at 6.; Tr. 1 at 47-48.

Based on continuing discussions with affected sources, IEPA proposed to revise subsection (a) similar to Section 217.158(a), by modifying the start date for emission units that may be included in an EAP from before January 1, 2002, to before January 1, 2017. PC 1 at 6, 9.

Subsection (b)

Subsection (b) addresses emissions averaging plans. 35 Ill. Adm. Code 217.390(b). IEPA proposed to revise it by limiting its applicability to "[b]efore May 1, 2025." Prop. 217 at 58-59; *see* SR at 35.

Subsection (b-5)[12]

IEPA proposed a new subsection (b-5) providing that,

> [o]n and after May 1, 2025, an owner or operator must submit an emissions averaging plan to the Agency at least 30 days before beginning the use of that plan to demonstrate compliance. The plan must include, but is not limited to the following:
>
> 1) The list of affected units included in the plan by unit identification number and permit number.
>
> 2) The applicable NO_x emissions concentration under Section 217.388(a)(1) for each affected unit.
>
> 3) A sample calculation demonstrating compliance using the methodology provided in subsection (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. Prop. 217 at 59; *see* SR at 35-36; TSD at 17.

IEPA clarified that, "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." SR at 36.

Subsection (c)

IEPA proposed to amend subsection (c) "by removing certain provisions related to

[12] For first-notice publication, this subsection was designated (c) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11535-47 (Aug. 9, 2024).

amended emissions averaging plans." SR at 36. As proposed by IEPA, subsection (c) would provide that "[a]n owner or operator may amend an emissions averaging plan only once per calendar year." Prop. 217 at 59.

Subsection (e)

Subsection (e) addresses demonstrations of compliance by owners or operators. 35 Ill. Adm. Code 217.390(e). IEPA proposed to amend it by limiting its applicability to "[u]ntil May 1, 2025." Prop. 217 at 60; *see* SR at 36; TSD at 17.

Subsection (e-5)[13]

IEPA proposed a new subsection (e-5) providing that,

[o]n 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). Prop. 217 at 60; *see* SR at 36; TSD at 17.

Based on public comments, IEPA proposed to revise this subsection by changing the compliance reporting date from January 1 to May 1 following each calendar year. PC 7 at 7, 12.

Subsection (f)

Subsection (f) addresses determining actual NO_x emissions and provides an equation for determining compliance. 35 Ill. Adm. Code 217.390(f). IEPA proposed to amend it by limiting its applicability to "[u]ntil May 1, 2025." Prop. 217 at 61; *see* SR at 36.

Subsection (g)

Subsection (g) addresses determining actual and allowable NO_x emissions by owners or operators and provides equations for the determinations. 35 Ill. Adm. Code 217.390(e). IEPA proposed to amend it by limiting its applicability to "[u]ntil May 1, 2025." Prop. 217 at 60; *see* SR at 36.

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[13] For first-notice publication, this subsection was designated (g) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11536-47 (Aug. 9, 2024).

IEPA also proposed in subsection (g)(2) to update references to test methods. Prop. 217 at 63; *see* SR at 36.

Subsection (g-5)[14]

IEPA proposed a new subsection (g-5) providing that "on and after May 1, 2025, the total mass of actual NO_x emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO_x emissions for those units on a 30-day rolling average basis." SR at 36; *see* Prop. 217 at 65-66. IEPA added that its proposed subsection "includes the equations addressing the 10 percent environmental write-off on calculated allowable emissions to generate an environmental benefit and to determine compliance." SR at 36-37; *see* TSD at 17, citing Improving Air Quality with Economic Incentive Programs, EPA-452/R-01-001 (Jan. 2001).

Subsection (g-10)[15]

IEPA proposed a new subsection (g-10) providing 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_x emissions must be determined using the equations set forth under new subsection (g-10), except as provided for in subsection (h)." SR at 37; *see* Prop. 217 at 66-69.

Subsection (h)

Subsection (h) addresses units that use CEMS and provides an equation to determine allowable NO_x emissions. 35 Ill. Adm. Code 217.390(h). IEPA proposed to add language limiting its applicability to "[u]ntil May 1, 2025." Prop. 217 at 69; *see* SR at 37. IEPA also proposed to add language providing that,

> [o]n and after May 1, 2025, for units that use CEMS, the data must show that the total mass of actual NO_x emissions determined pursuant to subsection (h)(1) of this Section is less than or equal to the total mass of allowable NO_x emissions calculated in accordance with the equations in subsections (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. Prop. 217 at 69; *see* SR at 37.

Based on continuing discussions with affected sources, IEPA proposed to revise this subsection by adding an additional method to calculate allowable emissions under Subpart Q to allow units that use a CEMS to determine NO_x emissions and monitor fuel flow, in lieu of stack flow, under 40 CFR, Appendix D. PC 1 at 6, 10.

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[14] For first-notice publication, this subsection was designated (j) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11541-47 (Aug. 9, 2024).

[15] For first-notice publication, this subsection was designated (k) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11542-47 (Aug. 9, 2024).

Section 217.392: Compliance

IEPA proposed to amend the heading of this section to "Compliance and 30-Day Rolling Average Basis." Prop. 217 at 70; *see* SR at 37.

Subsection (b-5)[16]

IEPA proposed to add a new subsection (b-5) providing that,

> [o]n 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. Prop. 217 at 70-71; *see* SR at 37-38.

IEPA asserted that the revised 30-day rolling averaging period requires compliance "on a more short-term basis, thereby preventing long-term periods (*i.e.*, greater than one month) in which average emissions exceed the limits." TSD at 17. By doing so, IEPA argues that this "may increase the effectiveness of the proposed emission limits in contributing to the prevention of ozone exceedances throughout the year." *Id*.

In response to IERG's questions, IEPA proposed to revise this subsection by allowing for units that may not have 30 operating days to calculate actual emissions to comply on an annual basis for a given calendar year until 30 operating days are accumulated. PC 1 at 3, 11. IEPA also proposed to remove language referencing initial performance tests and CEMS, both to achieve consistency with Subpart D and to accommodate newly subject units that will need to undergo performance testing to demonstrate compliance. PC 9 at 6-7.

Subsection (c)

Subsection (c) addresses using NO_x allowances to meet compliance requirements. It defines a NO_x allowance as "an allowance used to the meet the requirements of a NO_x trading program in which the State of Illinois participates where one allowance is equal to one ton of NO_x emissions." 35 Ill. Adm. Code 217.392(c).

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[16] For first-notice publication, this subsection was designated (c) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11547-49 (Aug. 9, 2024).

IEPA proposed to amend subsection (c) by limiting its applicability to "[b]efore May 1, 2025." Prop. 217 at 71; *see* SR at 38. IEPA cites USEPA comments that "use of NO_x allowances are not an appropriate vehicle for compliance with the NO_x emissions limitations contained in the NO_x RACT provisions under Part 217." TSD at 17.

Subsection (e)

Based on continuing discussions with affected sources, after the hearings IEPA proposed a new subsection (e) to provide compliance date extensions for a turbine located at the petroleum refinery in Channahon. PC 2 at 8.

Section 217.394: Testing and Monitoring

Subsection (a)

Subsection (a) establishes requirements in subsection (1) through (3) for conducting initial performance tests. 35 Ill. Adm. Code 217.394(a). IEPA proposed to amend it by limiting its applicability to "[b]efore May 1, 2025." Prop. 217 at 72; *see* SR at 38.

Subsection (a-5)[17]

IEPA proposed to add a subsection (a-5) providing that,

> [o]n 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 NO_x 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. Prop. 217 at 73; *see* SR at 38.

Based on continuing discussions with affected sources, IEPA proposed to revise this subsection to provide that additional initial performance testing is not required if it was already conducted within five years before May 1, 2025. PC 3 at 2, 8-9.

Subsection (b)(1)

Subsection (b) establishes requirements in subsections (1) through (3) for conducting

[17] For first-notice publication, this subsection was designated (b) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11550-52 (Aug. 9, 2024).

subsequent performance tests. 35 Ill. Adm. Code 217.394(b). Subsection (b)(1) requires the tests once every five years "[f]or affected engines listed in Appendix G and all units included in an emissions averaging plan." *Id*. IEPA proposed to amend subsection (b)(1) by requiring that the owner or operator "must conduct a performance test at the owner or operator's own expense." Prop. 217 at 73; *see* SR at 38.

Subsection (c)

Subsection (c) addresses testing procedures and prescribes testing methods. 35 Ill. Adm. Code 217.394(c). In subsection (c)(1), IEPA proposed to update a citation to a method. Prop. 217 at 74; *see* SR at 38.

Subsection (d)

Subsection (d) addresses monitoring NO_x concentrations. 35 Ill. Adm. Code 217.394(d). IEPA proposed to amend it by referring to the proposed new subsection (a-5). Prop. 217 at 74; *see* SR at 38. In subsection (d)(1), IEPA also proposed to update a citation to a measurement method. SR at 38; *see* Prop. 217 at 74.

IEPA later proposed to revise this subsection to allow for monitoring to be performed at highest achievable load considering the ambient conditions during operation. PC 3 at 4, 9.

Subsection (e)

Subsection (e) addresses CEMS and provides in part that "[t]he CEMS must be used to demonstrate compliance with the applicable emissions concentration or emissions averaging plan only on an ozone season and annual basis." 35 Ill. Adm. Code 217.394(e). IEPA proposed to amend the requirement by providing that it applies "[u]ntil May 1, 2025." Prop. 217 at 75; *see* SR at 39. IEPA also proposed that, "[o]n 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." *Id*.

Subsection (f)

Subsection (f) addresses the applicability of testing and monitoring requirements to affected units complying with low usage limitations. 35 Ill. Adm. Code 217.394(f). IEPA proposed to strike a reference to "low usage units using NO_x 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." SR at 39; *see* Prop. 217 at 75.

Subsection (h)

Based on continuing discussions with affected sources, IEPA proposed a new subsection (h) allowing an owner or operator, under certain circumstances, to calculate emissions during periods of operation that are below the minimum operating load tested or above the maximum operating load tested. PC 3 at 4-5, 9.

Section 217.396: Recordkeeping and Reporting

Subsection (a)

Subsection (a) requires 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 demonstrating compliance with Subpart Q," including specified information in subsection (1) through (11). SR at 39; *see* 35 Ill. Adm. Code 217.396(a).

Subsection (a)(3) requires records of "[t]he number of hours the unit operated on a monthly basis and during each ozone season." 35 Ill. Adm. Code 217.396(a)(3). IEPA proposed to amend this by limiting its applicability to "[b]efore May 1, 2025." Prop. 217 at 76; *see* SR at 39. IEPA also proposed to add a requirement to maintain records of, "[o]n and after May 1, 2025, daily operating hours." Prop. 217 at 76; *see* SR at 39.

IEPA also proposed to add a subsection (4-5)[18] to require maintaining records of, "[o]n and after May 1, 2025, total mass emissions on a daily basis and on a 30-day rolling average basis." Prop. 217 at 76; *see* SR at 39.

Subsection (a)(9) requires, "[i]f 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." 35 Ill. Adm. Code 217.396(a)(9). IEPA proposed to amend it by limiting its applicability to "[b]efore May 1, 2025." Prop. 217 at 76; *see* SR at 39.

IEPA also proposed to add a subsection (a)(12). Under the definition of "emergency or standby unit," these units "may operate for an additional 50 hours per year in non-emergency situations and still retain their exempt status under Subpart Q." TSD at 17, citing 35 Ill. Adm. Code 211.1920. Proposed new subsection (a)(12) requires, "[i]f 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." Prop. 217 at 77; *see* SR at 39; TSD at 17. USEPA has indicated to IEPA that this provision requires supporting documentation. TSD at 18.

Subsection (c)

Subsection (c) establishes reporting requirements, and subsection (c)(4) addresses units demonstrating compliance through an emissions averaging plan. 35 Ill. Adm. Code 217.396(c). IEPA proposed to limit the applicability of subsection (c)(4) to "[u]ntil May 1, 2025." Prop. 217 at 78; *see* SR at 39.

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[18] For first-notice publication, this subsection was designated (5) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11553-54 (Aug. 9, 2024).

Based on continuing discussions with affected sources, after the hearings IEPA proposed to add a subsection (c)(1)(D), allowing affected sources to provide testing notification and protocol submittal in accordance with 40 CFR §75.61(a)(1) and (5) and report in accordance with 40 CFR §75.60(b)(7) requirements. PC 3 at 4, 9.

IEPA proposed to add a subsection (c)(4-5)[19] providing that,

> [o]n 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_x emissions on a 30-day rolling average basis.
>
> B) The total mass of actual NO_x emissions on a 30-day rolling average basis for each unit included in the averaging plan.
>
> C) The calculations that demonstrate that the total mass of actual NO_x emissions is less than the total mass of allowable NO_x emissions using equations in Sections 217.390(g-5) and (g-10).
>
> D) The daily information required to determine the total mass of actual NO_x emissions on a 30-day rolling average basis. Prop. 217 at 78-79; *see* SR at 39-40.

Based on public comments, IEPA proposed to revise this subsection by changing the reporting date from January 1 to May 1 following the previous calendar year. PC 7 at 7, 12.

IEPA also proposed to add a subsection (c-5)[20] providing that,

> [o]n 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:

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[19] For first-notice publication, this subsection was designated (5) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11556 (Aug. 9, 2024).

[20] For first-notice publication, this subsection was designated (d) and the subsequent subsections re-designated. *See* 1 Ill. Adm. Code 100.340(b); 48 Ill. Reg. 11557-58 (Aug. 9, 2024).

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." Prop. 217 at 79-80; *see* SR at 40.

Subsection (d)

Under subsection (d)(1), "[t]he owner or operator of an affected unit that is complying with the low usage provisions of Section 217.388(a)(3) must for each unit complying with Section 217.388(a)(3)(A), maintain a record of the NO_x emissions for each calendar year." 35 Ill. Adm. Code 217.396(d)(1). IEPA proposed to limit the applicability of this requirement to "[b]efore May 1, 2025." Prop. 217 at 80; *see* SR at 40.

Under subsection (d)(3), "[t]he owner or operator of an affected unit that is complying with the low usage provisions of Section 217.388(a)(3) must for each unit utilizing NO_x allowances for compliance pursuant to Section 21.392(c)(3), maintain and submit any NO_x allowance reconciliation reports." 35 Ill. Adm. Code 217.396(d)(3). IEPA proposed to limit the applicability of this requirement to "[b]efore May 1, 2025." Prop. 217 at 80; *see* SR at 40.

Subsection (e)

IEPA proposed to amend this subsection by adding a reference to proposed new subsection (c)(4-5) and by correcting a reference to the incorporations by reference for Part 217. Prop. 217 at 80; *see* SR at 40.

Subpart U: NO_x Control and Trading Programs for Specified NO_x Generating Units

IERG noted that it had commented on IEPA's draft proposal and encouraged IEPA to revise Subpart U "to incorporate additional monitoring and reporting flexibility provided five years ago by USEPA for non-electric generating units ('non-EGUs,' *i.e.*, boilers, combustion turbines, and combined cycle units) with design heat input greater than 250 mmBtu/hr". IERG Questions at 6. IEPA stated it moved forward without incorporating these comments for several reasons. Tr. 1 at 49-52. USEPA's 1998 NO_x SIP Call created a NO_x budget trading program for EGUs and non-EGUs. *Id*. at 49-50. At the time, the program utilized CEMS data. *Id*. at 50. Although USEPA no longer implements this program and thus no longer needs the data, the monitoring requirements still apply to non-EGUs. *Id*. at 50-51. In 2019, USEPA revised the SIP Call, allowing states to revise and submit SIPs for approval to allow less costly alternative monitoring approaches. *Id*. at 51. USEPA informed the Agency that the NO_x SIP Call requirements are different from the NO_x RACT requirements, and Subpart U amendments would require additional approval. *Id*. Thus, "given that USEPA has taken final action to submit SIP revisions for the NO_x RACT requirements," the Agency moved forward here with only the NO_x RACT requirements to avoid additional approval delays. *Id*. at 52.

IERG asked whether IEPA could send two separate NO_x RACT SIP submittals to USEPA, where the first could contain portions of Part 217 for approval, and the second could be submitted later after revisions to other portions. Tr. 1 at 62-63. IEPA stated that it could theoretically do this, but USEPA had indicated that IERG's requested changes may not be approvable. PC 1 at 4.

IERG also whether IEPA was amenable to submitting revisions to Subpart U in this rulemaking to utilize the monitoring and reporting flexibility provided to Illinois by USEPA in Federal Register Vol. 84, No. 46 on March 8, 2019, for non-electric generating units (non-EGUs) with design heat input greater than 250 mmBtu/hour. IERG Questions 2 at 6. IEPA referred to its First Post-Hearing Comments (PC 1 at 4), stating it was not amenable to this approach because additional approval for Subpart U will cause additional delays and possible sanctions. IEPA Resp. at 12.

IERG questioned whether the existing monitoring, recordkeeping, and reporting requirements "for a non-EGU fossil fuel-fired stationary boiler with a maximum design heat input greater than 250 mmbtu/hr that is subject to Subpart E" satisfies the intent of complying with 40 CFR 96, Subpart H, as promulgated in 217.456(c), (e)(1)(B) through (D), and (e)(2). IERG Questions 2 at 6. IEPA asserted it "has no way of knowing absent a line-by-line assessment of Part 96, Subpart H, or a determination from USEPA." IEPA Resp. at 13.

APPENDIX I: Compliance Dates for Certain Emission Units at Petroleum Refineries and Petrochemical Facilities

Based on public comments and continuing discussions with affected sources, IEPA proposed a new Appendix I that sets forth the applicable compliance date for certain emission units located at petroleum refineries. PC 2 at 1-2, 8; PC 3 at 5, 10, 12-13; PC 9 at 2, 7-8. Additionally, Phillips 66 requested that the compliance date for its HDU-2 Heater be revised

from December 31, 2027, to December 31, 2028, to coincide with the heater's next scheduled maintenance TA. PC 5 at 4-5. IEPA declined this request because USEPA concluded that "that three years is generally an adequate amount of time for sources covered by the Good Neighbor Plan to install controls, and a three-year time frame appears similarly analogous in the context of this rulemaking." PC 9 at 2, citing PC 2 at 2-3. IEPA found that Phillips 66 had requested an extension beyond three years but could still retain other compliance flexibilities, such as EAPs and installing additional controls on other units. PC 9 at 2.

The Board agrees with IEPA that the extension provided in Appendix I is sufficient, combined with the available compliance flexibilities. As such, the Board will include Appendix I for second-notice review as proposed by IEPA.

TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS

Potentially Affected Sources

The regions subject to IEPA's proposal are the two areas designated as nonattainment for the 2015 8-hour ozone standard. SR at 13; TSD at 2; *see also* 89 Fed. Reg. 101901 (Dec. 17, 2024), effective January 16, 2025 (reclassifying the areas from Moderate to Serious nonattainment). The Chicago NAA includes 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. SR at 13-14, citing 40 CFR § 81.314; TSD at 1-2. The Metro East NAA includes the Counties of Madison, Monroe, and St. Clair. SR at 14, citing 40 CFR § 81.314; TSD at 2. IEPA states that these NAAs include areas of EJ concern. SR at 14.

The AG asked IEPA about the potential health impacts of exposure to NO_x emissions on the people living in the NAAs. AG Questions at 2. IEPA stated that NO_x is a precursor to ozone and $PM_{2.5}$, and NO_2 (a large component of NO_x) is a criteria pollutant with its own NAAQS. PC 1 at 2. IEPA stated USEPA's Final Rule, National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 65292 (Oct. 15, 2015), includes an evaluation of potential public health impacts, and further cited several pages on USEPA's website. *Id.*

The AG also asked IEPA how expected emissions reductions from its proposal would affect EJ communities in these areas. AG Questions at 1. IEPA asserted the anticipated reductions would benefit these EJ communities by reducing emissions of NO_x, thereby reducing adverse health effects and risks attributable to high ozone concentrations. PC 1 at 2.

Noting IEPA's anticipation of reduced NO_x emissions reductions in both NAAs, the AG asked IEPA whether "these anticipated reductions reduce any concerns about health impacts." AG Questions at 2. IEPA stated that the anticipated reductions will reduce concerns as described above. PC 1 at 2.

The proposed Subpart Q rules also affect the geographic areas in which the facilities listed in Part 217.Appendix G are located: Kendall, Clinton, Henry, McLean, Sangamon, Douglas, Pike, and Jo Daviess Counties. SR at 14, citing 35 Ill. Adm. Code 217.Appenidx G.

IEPA noted that its proposal "removes Jersey County and Baldwin Village in Randolph County from the applicability provisions in Sections 217.150 and 217.386." SR at 14, n.3. The Metro East NAA included these areas for the 1997 8-hour ozone and the 1997 $PM_{2.5}$ standards. *Id*. IEPA reported that "[t]hese areas are not part of the NAA for the 2015 8-hour ozone standard." *Id*. IEPA argues that these two areas do not have any sources subject to these regulations, so removing them "should not have any impact." *Id*.

IEPA stated that,

> [b]eginning 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_x 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_x in an amount equal to or greater than 50 tons per year. SR at 14; TSD at 2.

IEPA further stated that,

> 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_x in an amount equal to or greater than 50 tons per year. SR at 14-15; TSD at 2.

IEPA's TSD includes an appendix listing "[t]he sources expected to be affected by the proposed rulemaking." SR at 14; citing TSD at 22-24 (appendix). IEPA stated that "[t]hese 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_x in the three years from 2020 to 2022." TSD at 3. The proposed revisions may not affect these sources "if they have no units that will be subject to Part 217 emission limits, or if they were to limit source NO_x emissions to less than the applicability threshold of 50 TPY." *Id*.

IERG asked IEPA how many Title V sources within the Chicago and Metro East NAAs it currently expects to be subject to the proposed revisions. IERG Questions at 3. IEPA referred to the TSD's Appendix, adding that 66 of the total potentially affected sources are Title V sources. Tr. 1 at 23.

IERG further asked if the TSD's list of potentially affected sources includes sources with historical "actual emissions less than 15 tons per year but the potential to emit 15 tons per year." *Id*. at 64. IEPA stated that the 15 tpy applicability is for an individual unit: for instance, IEPA would not expect a single-unit source emitting more than 15 tpy to be subject if it is also below the source-wide applicability threshold of 50 tpy. *Id*. at 65. IEPA also confirmed the TSD's Appendix includes sources "that have actual emissions of less than 15 tons per year but the

potential to emit 50 tons per year or more." *Id*. at 66.

The Board noted IEPA's statement that "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_x emissions to less than the applicability threshold of 50 TPY." Board Questions at 8, citing TSD at 3. The Board asked IEPA to clarify whether a source with PTE of 50 tpy that limits the actual emissions to less than 15 tpy would be unaffected by the proposed rules. Board Questions at 8. IEPA explained that an "emission source" means a facility that could include multiple emission units. Tr. 1 at 73. At a source with the potential to emit 50 tpy or more, a unit emitting less than 15 tpy is not subject to the proposed rules. *Id*. Additionally, no units are subject if the source has a potential to emit less than 50 tpy. *Id*.

Request for Economic Impact Study

As required by Section 27(b) of the Act (415 ILCS 5/27(b) (2022)), the Board in a letter dated July 11, 2024, requested that DCEO conduct an economic impact study of the proposed rules by August 26, 2024. In a letter dated August 28, 2024, signed by Isabel C. Velez Diez, its Deputy Director for Policy Development, Planning, and Research, DCEO responded that it does not "have the industrial engineering expertise to meaningfully participate in this docket. Therefore, I respectfully decline your request for the Department to perform an economic impact study." DCEO added that

> it is unlikely that companies with fewer than 100 employees will be significantly impacted by the proposed amendments, as they probably do not emit the 50 tons of NO_x required for regulation. Furthermore, the primary purpose of these amendments is to satisfy federal requirements under the Clean Air Act (CAA). Failure to meet these EPA requirements could lead to mandatory sanctions, additional regulation which will impact businesses and the state could face highway funding sanctions, which would limit federal funding for new highway projects.

There was no testimony at either hearing regarding Board's request and DCEO's response. Tr. 1 at 90; Tr. 2 at 35.

Technical Feasibility and Economic Reasonableness

Section 27(a) of the Act requires the Board, when promulgating rules, to "take into account" the "technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution." 415 ILCS 5/27(a) (2022); *see also* Granite City Div. of Nat'l Steel Co. v. Illinois Pollution Control Board, 155 Ill. 2d 149, 182-83 (1993) (Board need only "consider or take into account" technical feasibility and economic reasonableness; Board need not conclude that compliance is technically feasible and economically reasonable to adopt regulations). The Board will discuss the technical feasibility and economic reasonableness of the proposed rules in this section.

IEPA asserted that it "has endeavored to ensure that the proposed revisions are both

technically feasible and economically reasonable." TSD at 4. When drafting its proposal, IEPA reviewed information on NO_x control technologies, communicated with potentially affected sources, and analyzed information on specific sources and emissions units. *Id*. In addition, IEPA reviewed NO_x RACT rules adopted or proposed in other USEPA Region 5 states. *Id*., citing 326 IAC 10-1-1 *et seq*., Mich. Adm. Code R 336.1801 *et seq*., OAC Ann. 37450110-01 *et seq*., Wis. Adm. Code NR 428.20 *et seq*. IEPA also communicated with USEPA on whether its proposed revisions would be approvable. TSD at 4.

IERG asked IEPA what specific available information regarding NO_x control technologies it reviewed to draft the proposal. IERG Questions at 3. IEPA stated it reviewed "a wide array of information" referenced in the TSD. Tr. 1 at 23.

IEPA further asserted that it has determined in some cases that "compliance with the proposed revisions is likely to be achievable by all subject sources in a category without additional emissions control being applied at an identified potentially affected source." TSD at 4. IEPA stated that it has not provided detailed cost-effectiveness estimates in some of these cases "because no sources in Illinois are likely to implement any new control strategies in order to comply with the proposed revisions." *Id*. at 4-5.

The Board noted this statement and asked IEPA "whether none of the potentially affected sources would need to implement additional emissions controls to achieve compliance with the proposed amendments." Board Questions at 9. IEPA stated it did not intend to indicate that no sources would need to implement additional controls; rather, for certain categories of emission units, all those units in both NAAs would likely not require operational changes to comply with the proposed limits. Tr. 1 at 77.

IERG asked IEPA whether it could define "additional emission control" and "new control strategies." IERG Questions at 3. IEPA explained these terms refer to "control strategies and equipment not currently in place to comply with existing Part 217 rules." Tr. 1 at 21.

IERG also asked IEPA in which specific categories it had determined "that all subject sources could achieve compliance without 'additional emissions controls.'" IERG Questions at 3. IEPA stated it determined that compliance with the proposed revisions is likely to be achievable "by all subject sources for glass melting furnaces, cement and lime kilns, iron and steel and aluminum manufacturing, and [S]ubpart M electrical generation units." Tr. 1 at 21-22.

Referring to the Appendix to IEPA's TSD, IERG asked whether it identifies "approximately 60 potentially affected sources in the Chicago and Metro East NAAs that the Agency identified as not having any economic impact from the proposed revisions." IERG Questions at 2. IERG also asked whether these sources fall into the categories of NO_x sources that could achieve compliance without additional emission controls. Tr. 1 at 22. IEPA stated that it had identified sources that would not need to use new control strategies. Tr. 1 at 23. The list of sources in the TSD's Appendix includes glass melting furnaces and other sources under the category of iron and steel and aluminum manufacturing that could achieve compliance, and the NAAs no longer contain Subpart M EGUs or cement and lime kilns. Tr. 1 at 22.

IERG asked IEPA whether its position on the economic impact on any of its proposal had changed for any of the sources listed in the Appendix to the TSD. IERG Questions at 2.

IERG asked what other economic factors IEPA considered for potentially affected sources in the Chicago or Metro East NAAs, besides the cost of adding emission controls or implementing new control strategies in its economic reasonableness analysis. IERG Questions at 2. IEPA stated that it considered factors "such as remaining useful life of emission units, [and] marginal costs of additional controls over existing controls." Tr. 1 at 20.

IERG asked how IEPA considered timing for what is technically feasible or economically reasonable. *Id*. at 57. IEPA acknowledged that some control measures could be technically feasible and economically reasonable, but possibly not by a certain date without imposing additional costs. *Id*. at 57-58. IEPA also noted that technical feasibility may include "the time it takes to conduct engineering studies, to get a construction permit before the Agency, and then the time to construct those." *Id*. at 58.

If sources need not implement additional emissions controls, the Board asked IEPA whether some of the affected sources will be relying on existing control strategies that have been previously found by the Board to be technically feasible for NO_x control. Board Questions at 9. IEPA asserted that many sources will be able to rely on their existing control strategies, and that emission limits for industrial boilers and process heaters (the most common types of emission units) were not changed in the proposal. Tr. 1 at 77.

The Board also asked IEPA for examples of existing control strategies that may be used to achieve compliance with the proposed amendments. Board Questions at 9. IEPA stated that the TSD details several available pre-combustion, combustion, and post-combustion control measures, such as low-NO_x burners and flue gas recirculation. Tr. 1 at 77.

IEPA noted that it later proposed revisions after discussions with specific affected sources on the technical feasibility and economic reasonableness of the proposed RACT standards. PC 9 at 5; PC 3 at 10-15. The proposed revisions were drafted to meet NO_x RACT requirements for Moderate and Serious NAAs while providing as much compliance flexibility as possible. PC 9 at 5-6. For example, compliance date extensions for currently and newly subject units reflect the timing of maintenance TAs, as well as time required for engineering studies, permitting, construction, and performance testing. PC 3 at 10-15. Certain individual sources that require capital projects to install additional control equipment or upgrade emission units received extensions upon request. *Id*. at 14. IEPA also communicated with USEPA as to what would be approvable in a SIP submission. PC 9 at 5-6.

The Board asked IEPA whether implementation of the proposed RACT rules will bring both NAAs into attainment with the 2015 ozone NAAQS. Board Questions at 9. IEPA asserted that the proposed RACT rules alone will not bring the areas into attainment; they are a required element of a SIP to achieve attainment. Tr. 1 at 78.

IEPA concluded that affected sources can meet its proposed requirements in a manner that is both economically reasonable and technically feasible. SR at 15; *see also* PC 9 at 5.

The Board finds that the amended proposal from IEPA, including the 10% reduction, is technically feasible and economically reasonable. The Board notes that IERG and affected sources have not argued the RACT standards are infeasible and unreasonable. As IEPA asserted, many affected sources – including all affected sources in certain categories – will likely not need to implement additional emission control measures. This in turn will reduce the economic impact of complying with the proposed standards by reducing the amount of capital investment required from these sources. Compliance extension dates for certain sources and units also reduce the immediate economic impact of the proposed emission limitations. Furthermore, the Board again notes that the use of EAPs – and the accompanying 10% reduction – is optional, and that affected sources may instead opt to comply with emission limitations on a unit-by-unit basis.

Finally, the Board notes that IEPA is required to implement RACT standards and obtain SIP approval. USEPA has indicated that the proposed rules and revisions (including compliance flexibilities) are approvable as a NO_x RACT SIP, and that the 10% reduction is a required element of EAPs included in the SIP submittal. Timely SIP submittal and approval is essential for Illinois to avoid sanctions.

CONCLUSION

The Board finds that the amended proposal from IEPA, including the 10% reduction, is technically feasible and economically reasonable. Therefore, the Board will submit the proposed amendments for second-notice review to JCAR.

ORDER

The Board directs its Clerk to submit the proposed amendments to Part 217 to JCAR for second-notice review. *See* 5 ILCS 100/5-40(c) (2022).

IT IS SO ORDERED.

I, Don A. Brown, Clerk of the Illinois Pollution Control Board, certify that the Board adopted the above opinion and order on March 20, 2025, by a vote of 5-0.

Don A. Brown

Don A. Brown, Clerk
Illinois Pollution Control Board

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

PART 217
NITROGEN OXIDES EMISSIONS

SUBPART A: GENERAL PROVISIONS

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217.100 Scope and Organization
217.101 Measurement Methods
217.102 Abbreviations and Units
217.103 Definitions
217.104 Incorporations by Reference

SUBPART B: NEW FUEL COMBUSTION EMISSION SOURCES

Section
217.121 New Emission Sources (Repealed)

SUBPART C: EXISTING FUEL COMBUSTION EMISSION UNITS

Section
217.141 Existing Emission Units in Major Metropolitan Areas

SUBPART D: NO_x GENERAL REQUIREMENTS

Section
217.150 Applicability
217.152 Compliance Date and 30-Day Rolling Average Basis
217.154 Initial Performance Testing
217.155 Initial Compliance Certification
217.156 Recordkeeping and Reporting
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217.158 Emissions Averaging Plans

SUBPART E: INDUSTRIAL BOILERS

Section
217.160 Applicability Exemptions
217.162 Exemptions (Repealed)
217.164 Emissions Limitations

217.165 Combination of Fuels
217.166 Methods and Procedures for Combustion Tuning

SUBPART F: PROCESS HEATERS

Section
217.180 Applicability Exemptions
217.182 Exemptions (Repealed)
217.184 Emissions Limitations
217.185 Combination of Fuels
217.186 Methods and Procedures for Combustion Tuning

SUBPART G: GLASS MELTING FURNACES~~FURNANCES~~

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

Source: Adopted as Chapter 2: Air Pollution, Rule 207: Nitrogen Oxides Emissions, R71-23, 4 PCB 191, April 13, 1972, filed and effective April 14, 1972; amended at 2 Ill. Reg. 17, p. 101, effective April 13, 1978; codified at 7 Ill. Reg. 13609; amended in R01-9 at 25 Ill. Reg. 128, effective December 26, 2000; amended in R01-11 at 25 Ill. Reg. 4597, effective March 15, 2001; amended in R01-16 and R01-17 at 25 Ill. Reg. 5914, effective April 17, 2001; amended in R07-18 at 31 Ill. Reg. 14254, effective September 25, 2007; amended in R07-19 at 33 Ill. Reg. 11999, effective August 6, 2009; amended in R08-19 at 33 Ill. Reg. 13345, effective August 31, 2009; amended in R09-20 at 33 Ill. Reg. 15754, effective November 2, 2009; amended in R11-17 at 35 Ill. Reg. 7391, effective April 22, 2011; amended in R11-24 at 35 Ill. Reg. 14627, effective August 22, 2011; amended in R11-08 at 35 Ill. Reg. 16600, effective September 27, 2011; amended in R09-19 at 35 Ill. Reg. 18801, effective October 25, 2011; amended in R15-21 at 39 Ill. Reg. 16213, effective December 7, 2015; amended in R25-17 at 49 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL PROVISIONS

Section 217.101 Measurement Methods

Measurement of nitrogen oxides must be according to:

a) The phenol disulfonic acid procedures, 40 CFR 60, Appendix A-4, Method 7, as incorporated by reference in Section 217.104;

b) Continuous emissions monitoring pursuant to 40 CFR 75, as incorporated by reference in Section 217.104;

c) Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure), 40 CFR 60, Appendix A-4, Method 7E, as incorporated by reference in Section 217.104;

d) Monitoring with portable monitors pursuant to ASTM D6522-2000, as incorporated by reference in Section 217.104; and

e) How do I conduct the initial and subsequent performance tests (for turbines), regarding NO_x pursuant to 40 CFR 60.4400, as incorporated by reference in Section 217.104.

(Source: Amended at 49 Ill. Reg. _____, effective _____)

Section 217.102 Abbreviations and Units

a) The following abbreviations are used in this Part:

ASTM	American Society for Testing and Materials
Btu	British thermal unit
bhp	brake horsepower
CEMS	continuous emissions monitoring system
EGU	Electrical Generating Unit
dscf	dry standard cubic feet
g/bhp-hr	grams per brake horsepower-hour
kg	kilogram
kg/MW-hr	kilograms per megawatt-hour
lb	pound
lbs/mmBtu	pounds per million Btu
Mg	megagram or metric ton
mm	million
mmBtu	million British thermal units
mmBtu/hr	million British thermal units per hour
MWe	megawatt of electricity
MW	megawatt; one million watts
MW-hr	megawatt-hour
NATS	NO_x Allowance Tracking System
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
O_2	oxygen
psia	pounds per square inch absolute
peoc	potential electrical output capacity
PTE	potential to emit
ppm	parts per million

ppmv	parts per million by volume
PEMS	predictive emission monitoring system
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 49 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);~~

a~~b~~) 40 CFR 96, subparts B, D, G, and H (1999);

b~~c~~) 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);

c~~d~~) 40 CFR ~~60,~~ 72~~, 75~~ & 76 (2006);

d~~e~~) Alternative Control Techniques Document – NO_x Emissions from Cement Manufacturing, EPA-453/R94-004, U.S. Environmental Protection Agency-Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, March 1994;

e~~f~~) 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);~~

f~~i~~) ASTM D6522-20~~00~~, 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);~~

g~~k~~) 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);~~

h~~m~~) Alternative Control Techniques Document − NO_x Emissions from Industrial/Commercial/Institutional (ICI) Boilers, EPA-453/R-94-022, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, March 1994;

i~~n~~) Alternative Control Techniques Document − NO_x Emissions from Process Heaters (Revised), EPA-453/R-93-034, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, September 1993;

j~~o~~) Alternative Control Techniques Document − NO_x Emissions from Glass Manufacturing, EPA-453/R-94-037, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, June 1994;

k~~p~~) Alternative Control Techniques Document − NO_x Emissions from Iron and Steel Mills, EPA-453/R-94-065, U.S. Environmental Protection Agency, Office of Air and Radiation, Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711, September 1994;

l~~q~~) 40 CFR 60 and 75 (20242008); and

~~r) 40 CFR 60, Appendix B, Performance Specification 16, 74 FR 12575 (March 25, 2009).~~

m) 40 CFR 63.7540 (2024).

(Source: Amended at 49 Ill. Reg. _____, effective _____)

SUBPART D: NO_x GENERAL REQUIREMENTS

Section 217.150 Applicability

a) Applicability

1) Before May 1, 2025, the~~The~~ provisions of this Subpart and Subparts E, F, G, H, I, and M of this Part apply to the following:

A) All sources that are located in either one of the following areas and that emit or have the potential to emit NO_x in an amount equal to or greater than 100 tons per year:

i) The area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County; or

ii) The area composed of the Metro East area counties of Jersey, Madison, Monroe, and St. Clair, and the Township of Baldwin in Randolph County; and

B) Any industrial boiler, process heater, glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, aluminum reverberatory or crucible furnace, or fossil fuel-fired stationary boiler at those ~~such~~ sources described in subsection (a)(1)(A) of this Section that emits NO_x in an amount equal to or greater than 15 tons per year and equal to or greater than five tons per ozone season.

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_x in an amount equal to or greater than 50 tons per year.

i) The area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County.

ii) The area composed of the Metro East area counties of Madison, Monroe, and St. Clair.

B) The emission unit emits 15 tons or more of NO_x to the atmosphere per calendar year.

32) For purposes of this Section, "potential to emit" means the quantity of NO_x that potentially could be emitted by a stationary source before add-on controls based on the design capacity or maximum production capacity of the source and 8,760 hours per year or the quantity of NO_x that potentially could be emitted by a stationary source as established in a federally enforceable permit.

b) If a source ceases to fulfill the emissions criteria of subsection (a) of this Section, the requirements of this Subpart and Subpart E, F, G, H, I, or M of this Part continue to apply to any emission unit that was ever subject to the provisions of any of those Subparts.

c) The provisions of this Subpart and Subparts E, F, G, H, I, and M do not apply to afterburners, flares, and incinerators.

~~d) Where a construction permit, for which the application was submitted to the Agency prior to the adoption of this Subpart, is issued that relies on decreases in emissions of NO_x from existing emission units for purposes of netting or emission offsets, such NO_x decreases remain creditable notwithstanding any requirements that may apply to the existing emission units pursuant to this Subpart and Subpart E, F, G, H, I, or M of this Part.~~

de) The owner or operator of an emission unit that is subject to this Subpart and Subpart E, F, G, H, I, or M of this Part must operate such unit in a manner consistent with good air pollution control practice to minimize NO_x emissions.

(Source: Amended at 49 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 must comply with the requirements of the applicable Subparts. Compliance with emissions limitations must be on a 30-day rolling average basis. A 30-day rolling average consists of 30 operating days where an operating day is a calendar day in which any affected emission unit combusts any fuel. Compliance with the 30-day rolling average must be demonstrated 30 operating days after May 1, 2025.

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

2) A 30-day rolling average under Subparts G and H is calculated using the total mass of emissions from the period and the total amount of glass, clinker, or lime produced in the period.

b) The owner or operator of an emission unit that is constructed or modified on or after May 1, 2025, and that is subject to this Subpart and Subpart E, F, G, H, I, or M must comply with the applicable Subparts within 180 days after initial startup of the new or modified emission unit.

c~~b~~) Notwithstanding subsection (a) of this Section, compliance with the requirements of Subpart G of this Part by an owner or operator of an emission unit subject to Subpart G of this Part is~~shall be~~ extended until December 31, 2014, if the unit is required to meet emissions limitations for NO_x, as measured using a continuous emissions monitoring system, and included within a legally enforceable order on or before May 7, 2010, whereby the emissions limitations are less than 30 percent of the emissions limitations ~~set forth~~ under Section 217.204.

d~~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, if ~~provided that~~the emissions limitations of those ~~such~~ other emission units are equal to or more stringent than the applicable emissions limitations set forth in Subpart E or F of this Part, as applicable, by the dates set forth in Appendix H.

e) Notwithstanding subsection (a) of this Section, the owner or operator of emission units subject to Subpart F and located at a petroleum refinery listed in Appendix I that first become subject to the emission limitations under Subpart F on May 1, 2025, must comply with the applicable limitations in Subpart F, including the option of demonstrating compliance with the applicable Subpart through an emissions averaging plan under Section 217.158, for such emission units beginning on and after the dates set forth in Appendix I.

f) Before January 1, 2028, the provisions of Section 217.152(a) that are effective on and after May 1, 2025, do not apply to (1) the three natural gas boilers numbered 6AP, 7AP, and 8AP located at the source located at 100 Abbott Park Road in Lake County, and (2) the two natural gas boilers numbered 9 and 12 located at the source located at 1401 Sheridan Road in Lake County.

g) Notwithstanding subsection (a) of this Section, the owner or operator of emission units subject to Subpart E or Subpart F and located at a petrochemical facility listed in Appendix I that first become subject to the emission limitations under Subpart E or F on May 1, 2025, must comply with the applicable limitations in Subpart E or F, including the option of demonstrating compliance with the applicable Subpart through an emissions averaging plan under Section 217.158, for such emission units beginning on and after the dates set forth in Appendix I.

(Source: Amended at 49 Ill. Reg. _____, effective _____)

Section 217.154 Initial Performance Testing

a) Performance testing of NO_x emissions for emission units constructed on or before May 1, 2025~~July 1, 2014~~, and subject to emissions limitations under Subpart E, F, G, H, or I of this Part must be conducted in accordance with Section 217.157 of this Subpart. ~~Except as provided for under Section 217.157(a)(4) and (e)(1).~~ This subsection does not apply to owners and operators of emission units demonstrating compliance through a continuous emissions monitoring system (CEMS), predictive emission monitoring system (PEMS), or combustion tuning. If performance testing was already conducted by an owner or operator under this subsection within five years before May 1, 2025, the owner or operator is not required to conduct an additional performance test.

b) Performance testing of NO_x emissions for emission units for which construction or modification occurs after May 1, 2025~~July 1, 2014~~, and that are subject to emissions limitations under Subpart E, F, G, H, or I of this Part must be conducted within 60 days after achieving maximum operating rate but no later than 180 days after initial startup of the new or modified emission unit, in accordance with Section 217.157 of this Subpart. ~~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~~ the date and five days before ~~such~~ the 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 49 Ill. Reg. _____, effective _____)

Section 217.155 Initial Compliance Certification

a) Before May 1, 2025:

1~~a~~) 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~~ the 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.

2~~b~~) 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~~the 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 49 Ill. Reg. _____, effective _____)

Section 217.156 Recordkeeping and Reporting

a) The owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must keep and maintain all records used to demonstrate initial compliance and ongoing compliance with the requirements of those Subparts.

1) Except as otherwise provided under this Subpart or Subpart E, F, G, H, I, or M of this Part, copies of the~~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) TheSuch 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, monthlyMonthly, seasonal, and annual operating hours. On and after May 1, 2025, daily operating hours.

4) Before May 1, 2025, typeType 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.

65) Product and material throughput, as applicable.

76) Reports for all applicable emissions tests for NO_x conducted on the unit, including results.

87) The date, time, and duration of any startup, shutdown, or malfunction in the operation of any emission unit subject to Subpart E, F, G, H, I, or M of this Part or any emissions monitoring equipment. The records must include a description of the malfunction and corrective maintenance activity.

98) A log of all maintenance and inspections related to the unit's air pollution control equipment for NO_x that is performed on the unit.

109) A log for the NO_x monitoring device, if present, including periods when not in service and maintenance and inspection activities that are performed on the device.

1110) Identification of time periods for which operating conditions and pollutant data were not obtained by the CEMS or PEMScontinuous emissions

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

12~~11~~) Before May 1, 2025, if~~If~~ complying with the emissions averaging plan provisions of Section 217.158, copies of the calculations used to demonstrate compliance with the ozone season and annual control period limitations, noncompliance reports for the ozone season, and ozone and annual control period compliance reports submitted to the Agency.

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

c) The owner or operator of an industrial boiler subject to Subpart E of this Part must maintain records in order to demonstrate compliance with the combustion tuning requirements under Section 217.166.

d) The owner or operator of a process heater subject to Subpart F of this Part must maintain records in order to demonstrate compliance with the combustion tuning requirements under Section 217.186.

e) The owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must maintain records in order to demonstrate compliance with the testing and monitoring requirements under Section 217.157.

f) The owner or operator of an emission unit subject to Subpart E, F, G, H, or I of this Part must provide the following information with respect to performance testing pursuant to Section 217.157:

1) Submit a testing protocol to the Agency at least 60 days prior to testing;

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

3) Not later than 60 days after the completion of the test, submit the results of the test to the Agency; and

4) If, after the 30-days' notice for an initially scheduled test is sent, there is a delay (e.g., due to operational problems) in conducting the test as scheduled, the owner or operator of the unit must notify the Agency as soon as practicable of the delay in the original test date, either by

providing at least seven days' prior notice of the rescheduled date of the test or by arranging a new test date with the Agency by mutual agreement.

g) Before May 1, 2025, the~~The~~ owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must notify the Agency of any exceedances of an applicable emissions limitation of Subpart E, F, G, H, I, or M of this Part by sending the applicable report with an explanation of the causes of the~~such~~ exceedances to the Agency within 30 days following the end of the applicable compliance period in which the emissions limitation was not met. On and after May 1, 2025, the owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must notify the Agency of any exceedances of an applicable emissions limitation of Subpart E, F, G, H, I, or M of this Part by sending the applicable report with an explanation of the causes of the exceedances to the Agency within 30 days following the end of the applicable 30-day rolling average period in which the emissions limitation was not met.

h) Within 30 days after the receipt of a written request by the Agency, the owner or operator of an emission unit that is exempt from the requirements of Subpart E, F, G, H, I, or M of this Part must submit records that document that the emission unit is exempt from those requirements to the Agency.

i) Until May 1, 2025, if~~If~~ demonstrating compliance through an emissions averaging plan, by March 1 following the applicable calendar year, the owner or operator must submit to the Agency a report that demonstrates the following:

1) For all units that are part of the emissions averaging plan, the total mass of allowable NO_x emissions for the ozone season and for the annual control period;

2) The total mass of actual NO_x emissions for the ozone season and annual control period for each unit included in the averaging plan;

3) The calculations that demonstrate that the total mass of actual NO_x emissions are less than the total mass of allowable NO_x emissions using equations in Section 217.158(f); and

4) The information required to determine the total mass of actual NO_x emissions.

j) On and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by May 1 following the previous calendar year, the owner or operator must submit to the Agency a report that includes the following:

1) For all units that are part of the emissions averaging plan, the total mass of allowable NO_x emissions on a 30-day rolling average basis.

2) The total mass of actual NO_x emissions on a 30-day rolling average basis for each unit included in the averaging plan.

3) The calculations that demonstrate that the total mass of actual NO_x emissions is less than the total mass of allowable NO_x emissions using equations in Section 217.158(g).

4) The daily information required to determine the total mass of actual NO_x emissions on a 30-day rolling average basis.

kj) The owner or operator of an emission unit subject to the requirements of Section 217.157 and demonstrating compliance through the use of a CEMS or PEMS~~continuous emissions monitoring system~~ must submit to the Agency a report within 30 days after the end of each calendar quarter. This report must include the following:

1) Information identifying and explaining the times and dates when the CEMS or PEMS~~continuous emissions monitoring~~ for NO_x was not in operation, other than for purposes of calibrating or performing quality assurance or quality control activities for the monitoring equipment; and

2) An excess emissions and monitoring systems performance report in accordance with the requirements of 40 CFR 60.7(c) and (d) and 60.13, or 40 CFR 75, or an alternate procedure approved by the Agency and USEPA.

lk) Until May 1, 2025, the~~The~~ owner or operator of an emission unit subject to Subpart M of this Part must comply with the compliance certification and recordkeeping and reporting requirements in accordance with 40 CFR 96, or an alternate procedure approved by the Agency and USEPA. On and after May 1, 2025, the owner or operator of an emission unit subject to Subpart M of this Part must comply with the compliance certification and recordkeeping and reporting requirements in accordance with 40 CFR 75, or an alternate procedure approved by the Agency and USEPA.

m) On and after May 1, 2025, the owner or operator of an emission unit subject to Subpart E, F, G, H, I, or M of this Part must submit an annual compliance certification report that demonstrates compliance with the applicable requirements to the Agency for the preceding calendar year by May 1 of the following year. The owner or operator may submit the annual compliance certification report to the Agency along with the Annual Emissions Report required under 35 Ill. Adm. Code 254 or the compliance certification required under 415 ILCS 5/39.5(7)(p)(v). The compliance report must include the following:

1) Identification, type (e.g., gas-fired), and location of the emission unit.

2) Methods used for determining compliance, including an emissions averaging plan, if applicable, a description of test methods, monitoring, recordkeeping, and reporting requirements.

3) A certification of compliance with the applicable emissions limitation or identification of the periods of noncompliance with a quantification of the excess emissions limitation and the excess emissions.

4) For each calendar month, the highest 30-day rolling average emission rate. The emissions data must be reported in the measurement units of the applicable emissions limitation.

5) The emission unit's daily and total operating hours, capacity utilization, and the percent operation of any CEMS or PEMS during the hours the emission unit was operating.

6) A certification of compliance with all applicable requirements except those identified signed by a responsible official that contains the following: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

(Source: Amended at 49 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_x emissions discharged into the atmosphere in accordance with 40 CFR 75, as incorporated by reference in Section 217.104. However, the owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 250 mmBtu/hr that combusts blast furnace gas with up to 10% natural gas on an annual basis and located at a source that manufactures iron and steel is not required to install, calibrate, maintain, and operate a CEMS~~continuous emissions monitoring system~~ on that industrial boiler, provided the heat input from natural gas does not exceed 10% on an annual basis and the owner or operator complies with the performance test requirements under this Section and demonstrates, during each performance test, that NO_x emissions from the industrial boiler are less than 70% of the applicable emissions limitation under Section 217.164. If~~In the event~~ the owner or operator is unable to meet the requirements of this exception, a CEMS~~continuous emissions~~

~~monitoring system~~ is required within 12 months after that event, or by January 1, 2015, whichever is later.

2) The owner or operator of an industrial boiler subject to Subpart E of this Part with a rated heat input capacity greater than 100 mmBtu/hr but less than or equal to 250 mmBtu/hr must install, calibrate, maintain, and operate a CEMS~~continuous emissions monitoring system~~ on the~~such~~ emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.

3) The owner or operator of a process heater subject to Subpart F of this Part with a rated heat input capacity greater than 100 mmBtu/hr must install, calibrate, maintain, and operate a CEMS~~continuous emissions monitoring system~~ on the emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.

4) On and after May 1, 2025, the owner or operator of an industrial boiler subject to Subpart E of this Part, or a process heater subject to Subpart F of this Part, with a rated heat input capacity greater than 50 mmBtu/hr but less than or equal to 100 mmBtu/hr must have an initial performance test conducted in accordance with subsection (a)(8)(A) of this Section and Section 217.154, and subsequent performance tests conducted in accordance with subsection (a)(8) of this Section.

5~~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)(8~~4~~)(A~~B~~) of this Section and Section 217.154, and subsequent performance tests conducted in accordance with subsection (a)(8) of this Section.

~~A) An owner or operator of an industrial boiler or process heater must have subsequent performance tests conducted pursuant to subsection (a)(4)(B) of this Section at least once every five years. When, in the opinion of the Agency or USEPA, it is necessary to conduct testing to demonstrate compliance with Section 217.164 or 217.184, as applicable, the owner or operator of an industrial boiler or process heater must, at his or her own expense, have such test~~

~~conducted in accordance with the applicable test methods and procedures specified in this Section within 90 days after receipt of a notice to test from the Agency or USEPA.~~

~~B)~~ ~~The owner or operator of an industrial boiler or process heater must have a performance test conducted using 40 CFR 60, subpart A and appendix A, Method 1, 2, 3, 4, 7E, or 19, as incorporated by reference in Section 217.104, or other alternative USEPA methods approved by the Agency. Each performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO_x emissions must be measured while the industrial boiler is operating 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.~~

6~~5~~) Instead of complying with the requirements of subsection (a)(4) or (5~~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 the~~such~~ emission unit in accordance with the applicable requirements of 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104. The CEMS~~continuous emissions monitoring system~~ must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis until May 1, 2025, and a 30-day rolling average on and after May 1, 2025.

7~~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 the~~such~~ boiler for the measurement of NO_x emissions discharged into the atmosphere, but must conduct initial and subsequent~~comply with the~~ performance tests~~test~~ in accordance with~~requirements under~~ subsection (a)(8~~4~~) of this Section.

8) All performance tests required by this subsection (a) must be conducted at the owner or operator's sole expense and must meet the requirements in subsection (a)(8)(A). All performance tests required by subsection (a) subsequent to an initial performance test must also meet the requirements in subsection (a)(8)(B):

A) Except as provided in subsection (a)(8)(C), the performance test must be conducted using 40 CFR 60, subpart A and appendix A, Method 1, 2, 3, 4, 7E, or 19, in appendix A-1, A-2, A-3, A-4, or A-7, respectively, as incorporated by reference in Section 217.104, or other alternative USEPA methods approved by the Agency. Each performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO_x emissions must be measured while the industrial boiler or process heater is operating at maximum operating capacity or while it is operating at normal maximum load. If the industrial boiler or process heater has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. If a combination of fuels is typically used, a performance test may be conducted, with Agency approval, on the combination of fuels typically used.

B) A performance test must be conducted at least once every five years. When, in the opinion of the Agency or USEPA, it is necessary to conduct testing to demonstrate compliance with Section 217.164 or 217.184, as applicable, the owner or operator of an industrial boiler or process heater must have the test conducted in accordance with the applicable test methods and procedures specified in this Section within 90 days after receipt of a notice to test from the Agency or USEPA.

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

Section until written Agency and USEPA approval to utilize the alternative method is received by the owner or operator.

b) Glass Melting Furnaces; Cement Kilns; Lime Kilns; Iron and Steel Reheat, Annealing, and Galvanizing Furnaces; and Aluminum Reverberatory and Crucible Furnaces

1) An owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit NO_x in an amount equal to or greater than one ton per day must install, calibrate, maintain, and operate a CEMS~~continuous emissions monitoring system~~ on the~~such~~ emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104.

2) An owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit NO_x in an amount less than one ton per day must have an initial performance test conducted pursuant to subsection (b)(4) of this Section and Section 217.154.

3) An owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit NO_x in an amount less than one ton per day must have subsequent performance tests conducted pursuant to subsection (b)(4) of this Section as follows:

A) All~~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~~ the~~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 the~~such~~ test conducted in accordance with the applicable test methods and procedures specified in this Section within 90 days after receipt of a notice to test from the Agency or USEPA.

4) The owner or operator of a glass melting furnace, cement kiln, or lime kiln must have a performance test conducted using 40 CFR 60, subpart A and ~~appendix A,~~ Methods 1, 2, 3, 4, or~~and~~ 7E~~,~~ in appendix A-1, A-2, A-3, or A-4, respectively, as incorporated by reference in Section 217.104 of this Part, or other alternative USEPA methods approved by the Agency. The owner or operator of an iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace must have a performance test conducted using 40 CFR 60, subpart A and ~~appendix A,~~ Method 1, 2, 3, 4, 7E, or 19~~,~~ in appendix A-1, A-2, A-3, A-4, or A-7, respectively, as incorporated by reference in Section 217.104 of this Part, or other alternative USEPA methods approved by the Agency. Each performance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO_x emissions must be measured while the glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace is operating at maximum ~~operating~~ capacity. If the glass melting furnace, cement kiln, lime kiln, iron and steel reheat, annealing, or galvanizing furnace, or aluminum reverberatory or crucible furnace has combusted more than one type of fuel in the prior year, a separate performance test is required for each fuel. Except as provided under subsection (e) of this Section, this subsection (b)(4) does not apply if the~~such~~ owner or operator is demonstrating compliance with an emissions limitation through a CEMS~~continuous emissions monitoring system~~ under subsection (b)(1) or (b)(5) of this Section.

5) Instead of complying with the requirements of subsections (b)(2), (b)(3), and (b)(4) of this Section, an owner or operator of a glass melting furnace subject to Subpart G of this Part, cement kiln or lime kiln subject to Subpart H of this Part, iron and steel reheat, annealing, or galvanizing furnace subject to Subpart I of this Part, or aluminum reverberatory or crucible furnace subject to Subpart I of this Part that has the potential to emit NO_x in an amount less than one ton per day may install and operate a CEMS~~continuous emissions monitoring system~~ on the~~such~~ emission unit in accordance with the applicable requirements of 40 CFR 60, subpart A and appendix B, Performance Specifications 2 and 3, and appendix F, Quality Assurance Procedures, as incorporated by reference in Section 217.104 of this Part. The CEMS~~continuous emissions monitoring system~~ must be used to demonstrate compliance with the applicable emissions

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

c) Fossil Fuel-Fired Stationary Boilers. Until May 1, 2025, the~~The~~ owner or operator of a fossil fuel-fired stationary boiler subject to Subpart M of this Part must install, calibrate, maintain, and operate a CEMS~~continuous emissions monitoring system~~ on the~~such~~ emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 96, subpart H. On and after May 1, 2025, the owner or operator of a fossil fuel-fired stationary boiler subject to Subpart M of this Part must install, calibrate, maintain, and operate a CEMS on the emission unit for the measurement of NO_x emissions discharged into the atmosphere in accordance with 40 CFR 75.

d) Common Stacks.

1) If two or more emission units subject to Subpart E, F, G, H, I, M, or Q of this Part are served by a common stack and the owner or operator of the~~such~~ emission units is operating a CEMS~~continuous emissions monitoring system~~, the owner or operator may, with written approval from the Agency, use~~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 the~~such~~ emission units are subject to an emissions averaging plan under this Part.

2) If a common stack serves emission units subject to Subpart E or F, as well as emission units that are not subject to Subpart E or F, each emission unit served by that common stack must be monitored by a CEMS and/or have had performance testing conducted in accordance with subsection (a)(8) to determine emissions from the emission units subject to Subpart E or F and heat input from all emission units served by the common stack must be monitored.

3) Notwithstanding subsection (d)(1), it is not required for all emission units sharing a common stack to be part of an emissions averaging plan if the following criteria are met:

A) Each emission unit at the source subject to an emissions limitation in Subparts E or F and not served by a common stack is demonstrating compliance with the applicable emissions limitation on a unit basis.

B) The common stack is monitored by either a CEMS in accordance with this Section or performance testing in accordance with subsection (a)(8)(C) to demonstrate compliance with the applicable emissions limitations.

e) Compliance with the ~~continuous emissions monitoring system (~~CEMS~~)~~ requirements by an owner or operator of an emission unit who is required to install, calibrate, maintain, and operate a CEMS on the emission unit under subsection (a)(1), (a)(2), (a)(3), or (b)(1) of this Section, or who has elected to comply with the CEMS requirements under subsection (a)(6~~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_x emissions discharged into the atmosphere in accordance with the requirements of 40 CFR 60, subpart A and appendix B, Performance Specification 16. The PEMS must be used to demonstrate compliance with the applicable emissions limitation or emissions averaging plan on an ozone season and annual basis until May 1, 2025, and a 30-day rolling average on and after May 1, 2025.

(Source: Amended at 49 Ill. Reg. _____ effective_____)

Section 217.158 Emissions Averaging Plans

a) Notwithstanding any other emissions averaging plan provisions under this Part, an owner or operator of a source with certain emission units subject to Subpart E, F, G, H, I, or M of this Part, or subject to Subpart Q of this Part that are located in either one of the areas set forth under Section 217.150(a)(1)(A)(i) or (ii) or Section 217.150(a)(2)(A)(i) or (ii), may demonstrate compliance with the applicable Subpart through an emissions averaging plan. An emissions averaging plan can only address emission units that are located at one source and each unit may only be covered by one emissions averaging plan. The~~Such~~ emission units at the source are affected units and are subject to the requirements of this Section.

1) The following units may be included in an emissions averaging plan:

A) Units that commenced operation on or before January 1, 2017 ~~2002~~.

B) Before My 1, 2025, units~~Units~~ that the owner or operator may claim as exempt under~~pursuant to~~ Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.342 of this Part, as applicable, but does not claim exempt. For as long as the~~such~~ a unit is

included in an emissions averaging plan, it will be treated as an affected unit and subject to the applicable emissions limitations, and testing, monitoring, recordkeeping and reporting requirements.

C) On and after May 1, 2025, units that are not otherwise subject to Subpart E, F, G, H, I, or M, as applicable, under Section 217.150(a)(2)(B), or Subpart Q, as applicable, under Section 217.386(b)(2)(A) or (B), but that the owner or operator chooses to include in an emissions averaging plan. For as long as the a unit is included in an emissions averaging plan, it will be treated as an affected unit and subject to the applicable emissions limitations, testing, monitoring, recordkeeping and reporting requirements.

D~~C~~) Units that commence operation after January 1, 2017~~2002~~, if the unit replaces a unit that commenced operation on or before January 1, 2017~~2002~~, or it replaces a unit that replaced a unit that commenced operation on or before January 1, 2017~~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_x emissions on an annual basis than the actual NO_x emissions of the unit or units that are replaced. Within 90 days after permanently shutting down a unit that is replaced, the owner or operator of the~~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.

E) On and after May 1, 2025, units that are not otherwise subject to Subpart E, F, G, H, I, or M, as applicable, under Section 217.150(a)(2)(B), but that share a common stack with a unit that is subject to Subpart E, F, G, H, I, or M, as applicable.

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

A) Units that commence operation after January 1, 2017~~2002~~, except as provided by subsection (a)(1)(D~~C~~) of this Section.

B) Before May 1, 2025, units~~Units~~ that the owner or operator is claiming are exempt under~~pursuant to~~ Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.342 of this Part, as applicable.

C) Units that are required to meet emission limits or control requirements for NO_x as provided for in an enforceable order, unless the order allows for emissions averaging. In the case of petroleum refineries, this subsection (a)(2)(C) does not prohibit

including industrial boilers or process heaters, or both, in an 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~~A n~~ owner or operator must submit an emissions averaging plan to the Agency by January 1, 2015. The plan must include, but is not limited to, the following:

1) The list of affected units included in the plan by unit identification number; and

2) A sample calculation demonstrating compliance using the methodology provided in subsection (g~~f~~) of this Section for the ozone season (May 1 through September 30) and calendar year (January 1 through December 31).

c) On and after May 1, 2025, an owner or operator must submit an emissions averaging plan to the Agency at least 30 days before beginning the use of that plan to demonstrate compliance. The plan must include, but is not limited to, the following:

1) The list of affected units included in the plan by unit identification number.

2) The allowable emissions limitation for each unit, as provided in Sections 217.164, 217.184, 217.204, 217.224, 217.244, and 217.344 of this Part, as applicable.

3) A sample calculation demonstrating compliance using the methodology provided in subsection (h) of this Section on a 30-day rolling average basis.

4) The date the owner or operator will begin using the emissions averaging plan.

d~~e~~) An owner or operator may amend an emissions averaging plan only once per calendar year. ~~Such an amended plan must be submitted to the Agency by January 1 of the applicable calendar year. If an amended plan is not received by the Agency by January 1 of the applicable calendar year, the previous year's plan will be the applicable emissions averaging plan.~~

e~~d~~) Notwithstanding subsection (d~~e~~) 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 the~~such~~ occurrence, an updated emissions averaging plan; or

2) Before May 1, 2025, if~~If~~ a unit that was exempt from the requirements of Subpart E, F, G, H, I, or M of this Part under~~pursuant to~~ Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.342 of this Part, as applicable, no longer qualifies for an exemption, the owner or operator may amend its existing averaging plan to include the~~such~~ unit within 30 days after the unit no longer qualifies for the exemption.

3) On and after May 1, 2025, if a unit that was not otherwise subject to Subpart E, F, G, H, I, or M, as applicable, under Section 217.150(a)(2)(B) becomes subject to Subpart E, F, G, H, I, or M, as applicable, the owner or operator may amend its existing averaging plan to include the unit within 30 days after the unit becomes subject to the applicable Subpart.

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

1) Until May 1, 2025, demonstrate~~Demonstrate~~ compliance for the ozone season (May 1 through September 30) and the calendar year (January 1 through December 31) by using the methodology and the units listed in the most recent emissions averaging plan submitted to the Agency under~~pursuant to~~ subsection (b) of this Section, the monitoring data or test data determined under~~pursuant to~~ Section 217.157, and the actual hours of operation for the applicable averaging plan period.~~; and~~

2) On and after May 1, 2025, demonstrate compliance on a 30-day rolling average basis by using the methodology and the units listed in the most recent emissions averaging plan submitted to the Agency under subsection (c) of this Section, the monitoring data or test data determined under Section 217.157, and the actual hours of operation for the applicable averaging plan period.

3~~2~~) Until May 1, 2025, submit~~Submit~~ to the Agency, by March 1 following each calendar year, a compliance report containing the information required by Section 217.156(i). On and after May 1, 2025, submit to the Agency, by May 1 following each calendar year, a compliance report containing the information required by Section 217.156(j).

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

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

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_x mass emissions from units included in the averaging plan for each fuel used (tons per ozone season and year).

N_{all} = Total sum of the allowable NO_x mass emissions from units included in the averaging plan for each fuel used (tons per ozone season and year).

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

i = Subscript denoting an individual unit.

j = Subscript denoting the fuel type used.

k = Number of different fuel types.

n = Number of different units in the averaging plan.

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

For each unit in the averaging plan, and each fuel used by thesuch unit, determine actual and allowable NO_x emissions using the following equations:

1) Actual emissions must be determined as follows:

When emission limits are prescribed in lb/mmBtu,

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

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

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

2) Allowable emissions must be determined as follows:

When emission limits are prescribed in lb/mmBtu,

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

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

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

Where:

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

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

E_{act} = Actual NO_x emission rate (lbs/mmBtu or lbs/ton of product) as determined by a performance test, a CEMS~~continuous emissions monitoring system~~, or an alternative method approved by the Agency.

E_{all} = Allowable NO_x emission rate (lbs/mmBtu or lbs/ton of product) as provided in Section 217.164, 217.184, 217.204, 217.224, 217.244, or 217.344, as applicable. For an affected industrial boiler subject to Subpart E of this Part, or process heater subject to Subpart F of this Part, with a rated heat input capacity less than or equal to 100 mmBtu/hr demonstrating compliance through an emissions averaging plan, the allowable NO_x emission rate is to be determined from a performance test after the~~such~~ boiler or heater has undergone combustion tuning. For all other units in an emissions averaging plan, an uncontrolled NO_x emission rate from USEPA's AP-42, as incorporated by reference in Section 217.104, or an uncontrolled NO_x emission rate as determined by an alternative method approved by the Agency, will be used.

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

P = weight in tons of processed product.

h) On and after May 1, 2025, the total mass of actual NO_x emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO_x emissions for those units on a 30-day rolling average basis. The following equation must be used to determine compliance:

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

Where:

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

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

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

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

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

i = Subscript denoting an individual unit.

j = Subscript denoting the fuel type used.

k = Number of different fuel types.

n = Number of different units in the averaging plan.

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

For each unit in the averaging plan, and each fuel used by the unit, determine actual and allowable NO_x emissions using the following equations:

1) Actual emissions must be determined as follows:

When emissions limitations are prescribed in lb/mmBtu,

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

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

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

Alternatively, for units equipped with CEMS that monitor stack flow in accordance with 40 CFR 60 or 75, or alternate methodology that has been

approved by the Agency or USEPA and included in a federally enforceable permit, actual emission rate for a given unit can be determined as follows:

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

Where:

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

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

C_d = Hourly average NOX concentration during unit operation in ppm on a dry basis for a given unit.

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

2) Allowable emissions must be determined as follows:

When emissions limitations are prescribed in lb/mmBtu,

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

When emissions limitations 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_x emissions in tons for a unit.

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

E_{act} = Actual NO_x emission rate (lbs/mmBtu or lbs/ton of product) as determined by a performance test, a CEMS, a PEMS, or an alternative method approved by the Agency.

E_{all} = Allowable NO_x emission rate (lbs/mmBtu or lbs/ton of product) as provided in Section 217.164, 217.184, 217.204, 217.224, 217.244, or 217.344, as applicable.

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.

ig) An owner or operator of an emission unit subject to Subpart Q of this Part that is located in either one of the areas set forth under Section 217.150(a)(1)(A)(i) or (ii) or Section 217.150(a)(2)(A)(i) or (ii) that is complying through an emissions averaging plan under this Section must comply with the applicable provisions for determining actual and allowable emissions under Section 217.390, the testing and monitoring requirements under Section 217.394, and the recordkeeping and reporting requirements under Section 217.396.

jh) The owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance (i.e. 30-day rolling average under Section 217.152) those time periods when an emission unit included in the emissions averaging plan is shut down for a maintenance turnaround, provided that the requirements in subsection (j)(1) through (j)(5) are met:

1) the~~such~~ owner or operator notify the Agency in writing at least 30 days in advance of the shutdown of the emission unit for the maintenance turnaround

2) ~~and~~ the shutdown of the emission unit does not exceed 45 days per ozone season or calendar year;

3) daily emissions of the combined emission units in the emissions averaging plan during the maintenance turnaround do not exceed the turnaround daily emissions cap. The turnaround daily emissions cap is the highest average daily emissions value of the three prior calendar years, where the combined emissions of units in the emissions averaging plan are summed on a daily basis, and those values are averaged for a given calendar year. The turnaround daily emission cap is to be submitted to the Agency in the written notification described in subsection (j)(1);

4) ~~and~~ NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround; and~~.~~

5) the owner or operator notifies the Agency in writing within 30 days of the end of the maintenance turnaround of the actual start and end dates for the maintenance turnaround and, for each day of the maintenance turnaround, the daily emissions of the combined emission units in the emissions averaging plan.

The owner or operator must resume compliance with the 30-day rolling average on the calendar day immediately following the end of the maintenance turnaround and incorporating the operating days preceding the maintenance turnaround. For purposes of this subsection, "maintenance turnaround" means the shutdown of any emission unit or control equipment that is scheduled at least 30 days in

advance of the shutdown and the purpose of such shutdown is to (1) perform general equipment cleaning and repairs due to normal equipment wear and tear; (2) perform required equipment tests and internal inspections; (3) install any unit or equipment modifications/additions, or make provisions for a future modification or addition; and/or (4) perform normal end-of-run catalyst changeouts or refurbishments.

kj) Until May 1, 2025, the~~The~~ owner or operator of an emission unit that combusts a combination of coke oven gas and other gaseous fuels and that is located at a source that manufactures iron and steel who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance those time periods when the coke oven gas desulfurization unit included in the emissions averaging plan is shut down for maintenance, provided that the~~such~~ owner or operator notify the Agency in writing at least 30 days in advance of the shutdown of the coke oven gas desulfurization unit for maintenance and the~~such~~ shutdown does not exceed 35 days per ozone season or calendar year and NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance period.

lj) The owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance (i.e. 30-day rolling average under Section 217.152) those time periods when NO_x pollution control equipment that controls one or more emission units included in the emissions averaging plan is shut down for a maintenance turnaround, provided that the requirements in subsection (l)(1) through (l)(5) are met:

1) the owner or operator notify the Agency in writing, at least 30 days in advance of the shutdown, of the NO_x pollution control equipment for the maintenance turnaround;

2) the shutdown of the NO_x pollution control equipment does not exceed 45 days per ozone season or calendar year; ~~and~~

3) daily emissions of the combined emission units in the emissions averaging plan during the maintenance turnaround do not exceed the turnaround daily emissions cap. The turnaround daily emissions cap is the highest average daily emissions value of the three prior calendar years, where the combined emissions of units in the emissions averaging plan are summed on a daily basis, and those values are averaged for a given calendar year. The turnaround daily emission cap is to be submitted to the Agency in the written notification described in subsection (l)(1);

43) except for those emission units vented to the NO_x pollution control equipment undergoing the maintenance turnaround, NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround; and.

5) the owner or operator notifies the Agency in writing within 30 days of the end of the maintenance turnaround of the actual start and end dates for the maintenance turnaround and, for each day of the maintenance turnaround, the daily emissions of the combined emission units in the emissions averaging plan.

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

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

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

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

(Source: Amended at 49 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 thesuch 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 thesuch units are located at a petroleum refinery and thesuch units are required to meet emission limits or control requirements for NO_x as provided for in an enforceable order.

c) Before May 1, 2025, the provisions of this Subpart do not apply to an industrial boiler operating under a federally enforceable limit of NO_x emissions from the boiler to less than 15 tons per year and less than five tons per ozone season.

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

(Source: Amended at 49 Ill. Reg. _____, effective _____)

Section 217.162 Exemptions (Repealed)

~~Notwithstanding Section 217.160 of this Subpart, the provisions of this Subpart do not apply to an industrial boiler operating under a federally enforceable limit of NO_x emissions from such boiler to less than 15 tons per year and less than five tons per ozone season.~~

(Source: Repealed at 49 Ill. Reg. _____, effective _____)

Section 217.164 Emissions Limitations

a) Except as provided for under Section 217.152, on and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any industrial boiler to exceed the following limitations. Until May 1, 2025, complianceCompliance 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)	NOo$_x$ Emissions Limitation (lb/mmBtu) or Requirement Before May 1, 2025
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

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

Other Liquid Fuels	Industrial boiler greater than 50	0.15
	Industrial boiler less than or equal to 50	Combustion tuning
Solid Fuel	Industrial boiler greater than 50, circulating fluidized bed combustor	0.10
	Industrial boiler greater than 250	0.15
	Industrial boiler greater than 50 but less than or equal to 250	0.20
	Industrial boiler less than or equal to 50	Combustion tuning

b) For an industrial boiler combusting a combination of natural gas, coke oven gas, and blast furnace gas, the NO_x emissions limitation must~~shall~~ be calculated using the following equation:

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

Where:

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

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

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

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

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

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

(Source: Amended at 49 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:

1~~a~~) The date the combustion tuning was performed;

2~~b~~) The name, title, and affiliation of the person who performed the combustion tuning;

3~~c~~) 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;

4~~d~~) 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

5~~e~~) Operating parameters recorded at the start and at conclusion of combustion tuning.

b) On and after May 1, 2025, the owner or operator of 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 49 Ill. Reg. _____, effective_____)

SUBPART F: PROCESS HEATERS

Section 217.180 Applicability Exemptions

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

(Source: Amended at 49 Ill. Reg. _____, effective_____)

Section 217.182 Exemptions (Repealed)

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

(Source: Repealed at 49 Ill. Reg. _____, effective_____)

Section 217.184 Emissions Limitations

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

Fuel	Emission Unit Type and Rated Heat Input Capacity (mmBtu/hr)	NO~~e~~$_x$ Emissions Limitation (lb/mmBtu) or Requirement Before May 1, 2025
Natural Gas or Other Gaseous Fuels	Process heater greater than 100	0.08
	Process heater less than or equal to 100	Combustion tuning
Residual Fuel Oil	Process heater greater than 100, natural draft	0.10
	Process heater greater than 100, mechanical draft	0.15
	Process heater less than or equal to 100	Combustion tuning
Other Liquid Fuels	Process heater greater than 100, natural draft	0.05
	Process heater greater than 100, mechanical draft	0.08
	Process heater less than or equal to 100	Combustion tuning

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

(Source: Amended at 49 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:

1~~a~~) The date the combustion tuning was performed;

2~~b~~) 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 49 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_x emissions from the furnace to less than 15 tons per year and less than five tons per ozone season. ~~The provisions of Subpart D of this Part and this Subpart apply to all glass melting furnaces located at sources subject to this Subpart pursuant to Section 217.150.~~

(Source: Amended at 49 Ill. Reg. _____, effective_____)

Section 217.202 Exemptions (Repealed)

~~Notwithstanding Section 217.200, the provisions of this Subpart do not apply to a glass melting furnace operating under a federally enforceable limit of NO_x emissions from such furnace to less than 15 tons per year and less than five tons per ozone season.~~

(Source: Repealed at 49 Ill. Reg. _____, effective_____)

Section 217.204 Emissions Limitations

a) On and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any glass melting furnace to exceed the following limitations. Until May 1, 2025, compliance~~Compliance~~ must be demonstrated with the emissions limitation on an ozone season and annual basis. On and after

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

Product	Emission Unit Type	NOx Emissions Limitation (lb/ton glass produced) Before May 1, 2025
Container Glass	Glass melting furnace	5.0
Flat Glass	Glass melting furnace	7.9
Other Glass	Glass melting furnace	11.0

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

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

(Source: Amended at 49 Ill. Reg. _____, effective_____)

SUBPART H: CEMENT AND LIME KILNS

Section 217.220 Applicability Exemptions

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

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

~~b)~~ ~~The provisions of Subpart D of this Part and this Subpart apply to all lime kilns located at sources subject to this Subpart pursuant to Section 217.150.~~

(Source: Amended at 49 Ill. Reg. _____, effective_____)

Section 217.222 Exemptions (Repealed)

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

(Source: Repealed at 49 Ill. Reg. _____, effective_____)

Section 217.224 Emissions Limitations

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

Emission Unit Type	NO~~o~~$_x$ Emissions Limitation (lb/ton clinker produced) Before May 1, 2025
Long dry kiln	5.1
Short dry kiln	5.1
Preheater kiln	3.8
Preheater/precalciner kiln	2.8

Emission Unit Type	NO_x Emissions Limitation (lb/ton clinker produced) On and after May 1, 2025
Long dry kiln	3.0

Short dry kiln	2.3
Preheater kiln	3.8
Preheater/precalciner kiln	2.8

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

Fuel	Emission Unit Type	N~~O~~O$_x$ Emissions Limitation (lb/ton lime produced)
Gas	Rotary kiln	2.2
Coal	Rotary kiln	2.5

(Source: Amended at 49 Ill. Reg. _____, effective_____)

SUBPART I: IRON AND STEEL AND ALUMINUM MANUFACTURING

Section 217.240 Applicability Exemptions

Before May 1, 2025, the provisions of this Subpart do not apply to an iron and steel reheat furnace, annealing furnace, or galvanizing furnace, or aluminum reverberatory furnace or crucible furnace operating under a federally enforceable limit of NO_x emissions from the furnace to less than 15 tons per year and less than five tons per ozone season.

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

~~b)~~ ~~The provisions of Subpart D of this Part and this Subpart apply to all reverberatory furnaces and crucible furnaces used in aluminum melting located at sources subject to this Subpart pursuant to Section 217.150.~~

(Source: Amended at 49 Ill. Reg. _____, effective_____)

Section 217.242 Exemptions (Repealed)

~~Notwithstanding Section 217.240, the provisions of this Subpart do not apply to an iron and steel reheat furnace, annealing furnace, or galvanizing furnace, or aluminum reverberatory furnace or~~

~~crucible furnace operating under a federally enforceable limit of NO_x emissions from such furnace to less than 15 tons per year and less than five tons per ozone season.~~

(Source: Amended at 49 Ill. Reg. _____, effective_____)

Section 217.244 Emissions Limitations

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

Emission Unit Type	N<u>O</u>~~e~~$_x$ Emissions Limitation (lb/mmBtu) <u>Before May 1, 2025</u>
Reheat furnace, regenerative	0.18
Reheat furnace, recuperative, combusting natural gas	0.09
Reheat furnace, recuperative, combusting a combination of natural gas and coke oven gas	0.142
Reheat furance, cold-air	0.03
Annealing furnace, regenerative	0.38
Annealing furnace, recuperative	0.16
Annealing furance, cold-air	0.07
Galvanizing furnace, regenerative	0.46
Galvanizing furnace, recuperative	0.16
Galvanizing furnace, cold air	0.06

<u>Emission Unit Type</u>	<u>NO_x Emissions Limitation (lb/mmBtu) On and after May 1, 2025</u>
<u>Reheat furnace, cold air</u>	<u>0.03</u>

Reheat furnace, regenerative and recuperative	0.09
Annealing furnace, cold air	0.07
Annealing furnace, regenerative and recuperative	0.08
Galvanizing furnace, cold air	0.06
Galvanizing furnace, regenerative and recuperative	0.08

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

Emission Unit Type	NO~~e~~$_x$ Emissions Limitation (lb/mmBtu)
Reverberatory furnace	0.08
Crucible furnace	0.16

(Source: Amended at 49 Ill. Reg. _____, effective_____)

SUBPART M: ELECTRICAL GENERATING UNITS

Section 217.340 Applicability and Exemptions

a) Notwithstanding Subpart V ~~or W~~ of this Part, the provisions of Subpart D of this Part and this Subpart apply to any fossil fuel-fired stationary boiler serving at any time a generator that has a nameplate capacity greater than 25 MWe and produces electricity for sale, excluding any units listed in Appendix D of this Part, located at sources subject to this Subpart under~~pursuant to~~ Section 217.150.

b) Before May 1, 2025, the provisions of this Subpart do not apply to a fossil fuel-fired stationary boiler operating under a federally enforceable limit of NO_x emissions from the boiler to less than 15 tons per year and less than five tons per ozone season.

(Source: Amended at 49 Ill. Reg. _____, effective_____)

Section 217.342 Exemptions (Repealed)

~~a)~~ ~~Notwithstanding Section 217.340, the provisions of this Subpart do not apply to a fossil fuel-fired stationary boiler operating under a federally enforceable limit of NO_x emissions from such boiler to less than 15 tons per year and less than five tons per ozone season.~~

~~b)~~ ~~Notwithstanding Section 217.340, the provisions of this Subpart do not apply to a coal-fired stationary boiler that commenced operation before January 1, 2008, that is complying with 35 Ill. Adm. Code 225.Subpart B through the multi-pollutant standard.~~

~~c)~~ ~~Notwithstanding Section 217.340, the provisions of this Subpart do not apply to a fossil fuel-fired stationary boiler that is subject to any of the requirements in the combined pollutant standard in 35 Ill. Adm. Code 225.Subpart B (Sections 225.291 through 225.299), regardless of the type of fossil fuel combusted.~~

(Source: Repealed at 49 Ill. Reg. _____, effective_____)

Section 217.344 Emissions Limitations

On and after January 1, 2015, no person shall cause or allow emissions of NO_x into the atmosphere from any fossil fuel-fired stationary boiler to exceed the following limitations. Until May 1, 2025, compliance~~Compliance~~ must be demonstrated with the applicable emissions limitation on an ozone season and annual basis. On and after May 1, 2025, compliance must be demonstrated with the applicable emissions limitation on a 30-day rolling average basis.

Fuel	Emission Unit Type	NO~~e~~$_x$ Emissions Limitation (lb/mmBtu)
Solid	Boiler	0.12
Natural gas	Boiler	0.06
Liquid	Boiler that commenced operation before January 1, 2008	0.10
	Boiler that commenced operation on or after January 1, 2008	0.08

(Source: Amended at 49 Ill. Reg. _____, effective_____)

SUBPART Q: STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES AND TURBINES

Section 217.386 Applicability

a) Before May 1, 2025, the~~The~~ provisions of this Subpart ~~shall~~ apply to all:

1) Stationary reciprocating internal combustion engines listed in Appendix G of this Part.

2) Stationary reciprocating internal combustion engines and turbines located at a source that emits or has the potential to emit NO_x in an amount equal to or greater than 100 tons per year and is in either the area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County, or in the area composed of the Metro-East counties of Jersey, Madison, Monroe, and St. Clair, and the Township of Baldwin in Randolph County, where:

A) The engine at nameplate capacity is rated at equal to or greater than 500 bhp output; or

B) The turbine is rated at equal to or greater than 3.5 MW (4,694 bhp) output at 14.7 psia, 59°F and 60 percent relative humidity.

b) On and after May 1, 2025, the provisions of this Subpart apply to all:

1) Stationary reciprocating internal combustion engines listed in Appendix G of this Part.

2) Stationary reciprocating internal combustion engines and turbines located at a source that emits or has the potential to emit NO_x in an amount equal to or greater than 50 tons per year and is in either the area composed of the Chicago area counties of Cook, DuPage, Kane, Lake, McHenry, and Will, the Townships of Aux Sable and Goose Lake in Grundy County, and the Township of Oswego in Kendall County, or in the area composed of the Metro-East counties of Madison, Monroe, and St. Clair, where:

A) The engine at nameplate capacity is rated at equal to or greater than 500 bhp output; or

B) The turbine is rated at equal to or greater than 3.5 MW (4,694 bhp) output at 14.7 psia, 59°F and 60 percent relative humidity.

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

1) Used as an emergency or standby unit as defined by 35 Ill. Adm. Code 211.1920. However, the owner or operator of the unit must comply with the recordkeeping requirement under Section 217.396(a)(13);

2) Used for research or for the purposes of performance verification or testing;

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.

dc) If an exempt unit ceases to fulfill the criteria specified in subsection (cb) of this Section, the unit is subject to the control requirements of this Subpart Q, and the owner or operator must notify the Agency in writing within 30 days after becoming aware that the exemption no longer applies and comply with the control requirements of this Subpart Q.

ed) The requirements of this Subpart Q will continue to apply to any engine or turbine that has ever been subject to the requirements of Section 217.388, even if the affected unit or source ceases to fulfill the rating requirements of subsection (a) or (b) of this Section or becomes eligible for an exemption underpursuant to subsection (cb) of this Section.

f) Notwithstanding subsection (e), on and after May 1, 2025, the requirements of Subpart Q will continue to apply to any engine or turbine that has ever been subject to the requirements of Section 217.388, even if the affected unit or source ceases to fulfill the requirements of subsection (b) or becomes eligible for an exemption pursuant to subsection (c), except for a combustion turbine that serves a generator that has a nameplate capacity greater than 25 Mwe and produces electricity for sale that does not meet the applicability criteria of subsection (b)(2).

~~e) Where a construction permit, for which the application was submitted to the Agency prior to the adoption of this Subpart, is issued that relies on decreases in emissions of NO_x from existing emission units for purposes of netting or emissions offsets, such NO_x decreases shall remain creditable notwithstanding any requirements that may apply to the existing emissions units pursuant to this Subpart.~~

(Source: Amended at 49 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_x to no more than:

A) 150 ppmv (corrected to 15 percent O_2 on a dry basis) for spark-ignited rich-burn engines;

B) 210 ppmv (corrected to 15 percent O_2 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_2 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_2 on a dry basis) for diesel engines;

On and after May 1, 2025, 210 ppmv (corrected to 15 percent O_2 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_2 on a dry basis) for gaseous fuel-fired turbines; ~~and~~

On and after May 1, 2025, 25 ppmv (corrected to 15 percent O_2 on a dry basis) for gaseous fuel-fired turbines;

F) Before May 1, 2025, 96 ppmv (corrected to 15 percent O_2 on a dry basis) for liquid fuel-fired turbines~~.~~; and

On and after May 1, 2025, 65 ppmv (corrected to 15 percent O_2 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 underpursuant to any other Subpart of this Part. For thesuch affected engines and turbines the applicable requirements of this Subpart apply, including, but not limited to, calculation of NO_x allowable and actual emissions rates, compliance dates, monitoring, testing, reporting, and recordkeeping.

3) Operates, for units not listed in Appendix G, the affected unit as a low usage unit underpursuant to subsection (a)(3)(A) or (a)(3)(B) of this Section. Low usage units that are not part of an emissions averaging plan are not subject to the requirements of this Subpart Q except for the requirements to inspect and maintain the unit underpursuant to subsection (a)(4) of this Section, test as required by Section 217.394(gf), and retain records underpursuant to Section 217.396(b) and (ed). Either the limitation in subsection (a)(3)(A) or (a)(3)(B) may be used utilized at a source, but not both:

A) Before May 1, 2025, theThe potential to emit (PTE) is no more than 100 TPY NO_x aggregated from all engines and turbines located at the source that are not otherwise exempt underpursuant to Section 217.386(cb), and not complying with the requirements of subsection (a)(1) or (a)(2) of this Section, and the NO_x PTE limit is contained in a federally enforceable permit; or

B) The aggregate bhp-hrs/MW-hrs from all affected units located at the source that are not exempt underpursuant to Section 217.386(cb), and not complying with the requirements of subsection (a)(1) or (a)(2) of this Section, are less than or equal to the bhp-hrs and MW-hrs operation limit listed in subsections (a)(3)(B)(i) and (a)(3)(B)(ii) of this Section. The operation limits of subsections (a)(3)(B)(i) and (a)(3)(B)(ii) of this Section must be contained in a federally enforceable permit, except for units that drive a natural gas compressor located at a natural gas compressor station or storage facility. The operation limits are:

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 (fe), as applicable. Before May 1, 2025, forFor this purpose, references to the "applicable compliance date" in Section 217.394(a)(2) and (a)(3) meansshall 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_x emissions control device for compliance with the requirements of subsection (a)(1) or (a)(2) of this Section; and

B) Prior to changing the method of compliance to subsection (c) of this Section, complete any outstanding initial performance testing, subsequent performances testing or monitoring as required by Section 217.394(a), (cb), (dc), (ed) or (fe) for the affected unit. If

the deadline for thesuch 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(gf).

(Source: Amended at 49 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, 20172002 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, locatedLocated at a single source or at multiple sources in either the Chicago area counties or Metro-East area counties to address compliance for units identified in Section 217.386(a)(2), so long as the units are owned by the same company or parent company where the parent company has working control through stock ownership of its subsidiary corporations;. On and after May 1, 2025, units located at a single source or at multiple sources all located in either the Chicago area counties or Metro-East area counties to address compliance for units identified in Section 217.386(b)(2), so long as the units are owned by the same company or parent company where the parent company has working control through stock ownership of its subsidiary corporations;

B) Units that have a compliance date later than the control period for which the averaging plan is being used for compliance;

C) Units that are not otherwise subject to this Subpart (so long as the units are owned by the same company or parent company where the parent company has working control through stock ownership of its subsidiary corporations) or that the owner or operator may claim as exempt underpursuant to Section 217.386(cb) but does not claim as exempt. For as long as thesuch unit is included in an emissions averaging plan, it will be treated as an affected unit and subject to the applicable emission concentration, limits, testing, monitoring, recordkeeping and reporting requirements; and

D) Units that comply with the requirements for low usage units set forth in Section 217.388(a)(3), so long as the unit or units operate NO_x emissions control technology. For as long as thesuch unit is included in an emissions averaging plan, it will be subject to the applicable emission concentration limits in subsection (ig)(7) of this Section, the applicable testing and monitoring requirements for affected units in Section 217.394(a) through (fe), and the applicable recordkeeping and reporting requirements for affected and low usage units in Section 217.396(a) through (ed).

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

A) Units that commence operation after January 1, 20172002, 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, 20172002, 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, 20172002. The new unit must be used for the same purpose and have substantially equivalent or less process capacity or be permitted for less NO_x emissions on annual basis than the actual NO_x emissions of the unit or units that are replaced. The owner or operator of a unit that is shut down and replaced must comply with the provisions of Section 217.396(c)(3) before the replacement unit may be included in an emissions averaging plan.

B) Units that the owner or operator is claiming are exempt underpursuant to Section 217.386(cb).

b) Before May 1, 2025, anAn 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 (hf) 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 underpursuant 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 underpursuant to subsection (dc) of this Section is effective retroactively to January 1 of the applicable year; or

E) An amended plan submitted underpursuant to subsection (ed) of this Section is effective on the date it is received by the Agency.

c) On and after May 1, 2025, an owner or operator must submit an emissions averaging plan to the Agency at least 30 days before beginning the use of that plan to demonstrate compliance. The plan must include, but is not limited to the following:

1) The list of affected units included in the plan by unit identification number and permit number.

2) The applicable NO_x emissions concentration under Section 217.388(a)(1) for each affected unit.

3) A sample calculation demonstrating compliance using the methodology provided in subsection (j) of this Section on a 30-day rolling average basis.

4) The date the owner or operator will begin using the emissions averaging plan.

d~~e~~) 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.~~

e~~d~~) Despite~~Notwithstanding~~ subsection (d~~e~~) of this Section, an owner or operator, and the buyer or seller, if applicable:

1) Must submit an updated emissions averaging plan or plans to the Agency within 60 days if a unit that is listed in an emissions averaging plan is sold or taken out of service.

2) May amend its emissions averaging plan to include another unit within 30 days after discovering that the unit no longer qualifies as an exempt unit under~~pursuant to~~ Section 217.386(c~~b~~) or as a low usage unit under~~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.

f~~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 under~~pursuant to~~ subsection (b), (d~~e~~), or (e~~d~~) of this Section; the higher of the monitoring or test data determined under~~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).

g) On and after May 1, 2025, an owner or operator must:

1) Demonstrate compliance on a 30-day rolling average basis by using the methodology and the units listed in the most recent emissions averaging

plan submitted to the Agency under subsection (c), (d), or (e) of this Section; the higher of the monitoring or test data determined under Section 217.394; and the actual hours of operation for the applicable averaging plan period.

2) Submit to the Agency by May 1 following each calendar year, a compliance report containing the information required by Section 217.396(c)(5).

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

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

Where:

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

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

N_{act} = Total sum of the actual NO_x mass emissions from units included in the averaging plan for each fuel used (lbs per ozone season and calendar year).

N_{all} = Total sum of the allowable NO_x mass emissions from units included in the averaging plan for each fuel used (lbs per ozone season and calendar year).

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

$EM_{act(i)}$ = Total mass of actual NO_x emissions in lbs for a unit as determined in subsection (g)(1) or (h)(1) of this Section.

i = Subscript denoting an individual unit and fuel used.

n = Number of different units in the averaging plan.

ig) Until May 1, 2025, forFor each unit in the averaging plan, and each fuel used by a unit, determine actual and allowable NO_x emissions using the following equations, except as provided for in subsection (lh) of this Section:

1) Actual emissions must be determined as follows:

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

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

2) Allowable emissions must be determined as follows:

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

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

Where:

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

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

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

E_{all} = Allowable NO_x emission rate (lbs/mmBtu) calculated according to the above equation, as applicable.

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

$C_{d(act)}$ = Actual concentration of NO_x in lb/dscf (ppmv x 1.194 x10^{-7}) on a dry basis for the fuel used. Actual concentration is determined on each of the most recent test runs or monitoring passes performed underpursuant to Section 217.394, whichever is higher.

$C_{d(all)}$ = Allowable concentration of NO_x in lb/dscf (allowable emission limit in ppmv specified in Section 217.388(a)(1), except as provided for in subsection (ig)(4), (ig)(5), (ig)(6), or (ig)(7) of this Section, if applicable, multiplied by 1.194 x 10^{-7}) on a dry basis for the fuel used.

F_d = The ratio of the gas volume of the products of combustion to the heat content of the fuel (dscf/mmBtu) as given in the table of F Factors included in 40 CFR 60, appendix A,

Method 19 or as determined using 40 CFR 60, appendix A, Method 19.

$\%O_{2d}$ = Concentration of oxygen in effluent gas stream measured on a dry basis during each of the applicable tests or monitoring runs used for determining emissions, as represented by a whole number percent, e.g., for 18.7%O_{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.

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

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

4) For a replacement unit that is not electric, the allowable NO_x emissions rate used in the above equations set forth in subsection (ig)(2) of this Section must be the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104 for the unit that was replaced.

5) For a unit that is replaced with purchased power, the allowable NO_x emissions rate used in the equations set forth in subsection (ig)(2) of this Section must be the emissions concentration set forth in Section 217.388(a)(1) or subsection (ig)(6) of this Section, when applicable, for the type of unit that was replaced. For owners or operators replacing units with purchased power, the annual hours of operations that must be used are the calendar year hours of operation for the unit that was shut down, averaged over the three-year period prior to the shutdown. The actual NO_x emissions for the units replaced by purchased power ($EM_{(i)act}$) are zero. These units may be included in any emissions averaging plan for no more than five years beginning with the calendar year that the replaced unit is shut down.

6) For units that have a later compliance date, allowable emissions rate used in the equations set forth in subsection (ig)(2) of this Section must be:

A) Prior to the applicable compliance date underpursuant to Section 217.392, the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Areas Sources, as incorporated by reference in Section 217.104; or

B) On and after the unit's applicable compliance date underpursuant to Section 217.392, the applicable emissions concentration for that type of unit underpursuant to Section 217.388(a)(1).

7) For a low usage unit complying with the requirements of Section 217.388(a)(3) and used in an emissions averaging plan, the allowable NO_x emissions rate used in the above equations set forth in subsection (ig)(2) of this Section must be the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104.

j) On and after May 1, 2025, the total mass of actual NO_x emissions from the units listed in the emissions averaging plan must be equal to or less than the total mass of allowable NO_x emissions for those units on a 30-day rolling average basis. The following equation must be used to determine compliance:

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

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_x mass emissions from units included in the averaging plan for each fuel used (lbs per 30-day rolling average basis).

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

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

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

i = Subscript denoting an individual unit and fuel used.

n = Number of different units in the averaging plan.

k) On and after May 1, 2025, for each unit in the averaging plan, and each fuel used by a unit, determine actual and allowable NO_x emissions using the following equations, except as provided for in subsection (l) of this Section:

1) Actual emissions must be determined as follows:

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

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

2) Allowable emissions must be determined as follows:

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

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

Where:

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

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

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

E_{all} = Allowable NO_x 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.

$C_{d(act)}$ = Actual concentration of NO_x in lb/dscf (ppmv x 1.194×10^{-7}) on a dry basis for the fuel used. Actual concentration is determined on each of the most recent test runs or monitoring passes performed under Section 217.394, whichever is higher.

$C_{d(all)}$ = Allowable concentration of NO_x in lb/dscf (allowable emission limit in ppmv specified in Section 217.388(a)(1), except as provided for in subsection (k)(4), (k)(5), (k)(6), or (k)(7) of this Section, if applicable, multiplied by 1.194×10^{-7}) on a dry basis for the fuel used.

F_d = The ratio of the gas volume of the products of combustion to the heat content of the fuel (dscf/mmBtu) as given in the table of F Factors included in 40 CFR 60, appendix A-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 during a 30-day rolling average period multiplied by the allowable NO_x emission rate in lb/bhp-hr of the replaced unit. The allowable mass of NO_x emissions from an electric-powered replacement unit ($EM_{all\ elec(i)}$) must be determined by multiplying the nameplate capacity of the unit by the hours operated during a 30-day rolling average period and the allowable NO_x emission rate of the replaced unit ($E_{all\ rep}$) in lb/mmBtu converted to lb/bhp-hr. For this calculation the following equation should be used:

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

Where:

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

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

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

F = Conversion factor of 0.0077 mmBtu/bhp-hr.

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

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

4) For a replacement unit that is not electric, the allowable NO_x emissions rate used in the above equations set forth in subsection (k)(2) of this Section must be the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104, for the unit that was replaced.

5) For a unit that is replaced with purchased power, the allowable NO_x emissions rate used in the equations set forth in subsection (k)(2) of this Section must be the emissions concentration set forth in Section 217.388(a)(1) or subsection (k)(6) of this Section, when applicable, for the type of unit that was replaced. For owners or operators replacing units with purchased power, the annual hours of operations that must be used are the calendar year hours of operation for the unit that was shut down, averaged over the three-year period prior to the shutdown. The actual NO_x emissions for the units replaced by purchased power ($EM_{(i)act}$) are zero. These units may be included in any emissions averaging plan for no more than five years beginning with the calendar year that the replaced unit is shut down.

6) For units that have a later compliance date, allowable emissions rate used in the equations set forth in subsection (k)(2) of this Section must be:

A) Prior to the applicable compliance date under Section 217.392, the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Areas Sources, as incorporated by reference in Section 217.104; or

B) On and after the unit's applicable compliance date under Section 217.392, the applicable emissions concentration for that type of unit under Section 217.388(a)(1).

7) For a low usage unit complying with the requirements of Section 217.388(a)(3) and used in an emissions averaging plan, the allowable NO_x emissions rate used in the above equations set forth in subsection (k)(2) of this Section must be the higher of the actual NO_x emissions as determined by testing or monitoring data or the applicable uncontrolled NO_x emissions factor from Compilation of Air Pollutant Emission Factors: AP-42, Volume I: Stationary Point and Area Sources, as incorporated by reference in Section 217.104.

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

(l)(2) of this Section for each 30-day rolling average period. The equations in subsection (k) of this Section will not apply.

1) The total mass of actual NO_x emissions in lbs for a unit (EM_{act}) must be the sum of the total mass of actual NO_x emissions from each affected unit using CEMS data collected in accordance with 40 CFR 60 or 75, or alternate methodology that has been approved by the Agency or USEPA and included in a federally enforceable permit.

2) The allowable NO_x emissions must be determined as follows:

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

Where:

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

$flow_{ji}$ = Stack flow (dscf/hr) for a given stack.

Cd_j = Allowable concentration of NO_x (ppmv) specified in Section 217.388(a)(1) for a given stack (1.194×10^{-7} converts to lb/dscf).

j = subscript denoting each hour operation of a given unit.

m = Total number of hours of operation of a unit.

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

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

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

Where:

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

H = Heat input (mmBtu) calculated from fuel flow meter and the heating value of the fuel used.

$C_{d(all)}$ = Allowable concentration of NOx in lb/dscf (allowable emissions concentration in ppmv specified in Section 217.388(a)(1) multiplied by 1.194 x 10-7) on a dry basis for the fuel used.

F_d = The ratio of the gas volume of the products of combustion to the heat content of the fuel (dscf/mmBtu) as given in the table of F Factors included in 40 CFR 60, appendix A, Method 19 or as determined using 40 CFR 60, appendix A, Method 19.

$\%O_{2d}$ = Concentration of oxygen in effluent gas stream measured on a dry basis during each hour used for determining emissions, as represented by a whole number percent, e.g., for 18.7%O2d, 18.7 would be used.

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 49 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 underpursuant to Section 217.386(cb).

c) On and after May 1, 2025, an owner or operator of a stationary internal combustion engine or turbine subject to this Subpart Q must not operate the affected engine or turbine unless the requirements of this Subpart Q are met. Compliance must be demonstrated with the applicable emissions concentration or emissions averaging plan on a 30-day rolling average basis. A 30-day rolling average consists of 30 operating days where an operating day is a calendar day in which any subject emission unit combusts any fuel. Compliance with the 30-day rolling average must be demonstrated 30 operating days after May 1, 2025. A 30-day rolling average is calculated using the total mass of emissions from the period and the total volume of products of combustion in the period. If an affected engine or turbine does not operate 30 operating days in a calendar year, the owner or operator of the unit must demonstrate compliance on an annual calendar year basis until 30 operating days are accumulated on and after May 1, 2025.

dc) Before May 1, 2025, ownersOwners and operators of an affected unit may use NO_x allowances to meet the compliance requirements in Section 217.388 as specified in this subsection (dc). A NO_x allowance is defined as an allowance

used to meet the requirements of a NO_x trading program in which the State of Illinois participates where one allowance is equal to one ton of NO_x emissions.

1) NO_x allowances may be used only under the following circumstances:

   A) An anomalous or unforeseen operating scenario inconsistent with historical operations for a particular ozone season or calendar year that causes an exceedance of an emissions or operating hour limitation;

   B) To achieve compliance for no more than two events in any rolling five-year period;

   C) If the anomalous or unforeseen operating scenario occurs during an ozone season, it counts as a single event for purposes of the calendar year even if there is an exceedance of both an ozone season emission limitation and an annual emissions limitation as a result of the~~such~~ operating scenario; and

   D) For a unit that is not listed in Appendix G.

2) The owner or operator of the affected unit must surrender to the Agency a NO_x allowance for each ton or portion of a ton of NO_x by which actual emissions exceed allowed emissions, as follows:

   A) Where a low usage limitation under Section 217.388(a)(3)(B) has been exceeded, the owner or operator of the affected unit must calculate the NO_x emissions resulting from the number of hours that exceeded the operating hour low usage limit and surrender to the Agency one NO_x allowance for each ton or portion of a tin of NO_x that was calculated.

   B) For noncompliance with a limitation in an emissions averaging plan that includes low usage units, the owner or operator of the affected low usage unit must calculate the NO_x emissions using the applicable allowable emissions concentration from Section 217.388(a)(1).

   C) For noncompliance with a seasonal limit in Section 217.388(a)(2), only a NO_x ozone season allowance must be used.

   D) For noncompliance with the emissions concentration limits in Section 217.388(a)(1), low usage limitations in Section 217.388(a)(3) or an annual limitation in an emissions averaging plan in Section 217.388(a)(2), only a NO_x annual allowance may be used.

E) Despite ~~Notwithstanding~~ the provisions of subsections (d~~e~~)(2)(C) and (d~~e~~)(2)(D) of this Section, if a NO_x annual trading program does not exist, a NO_x ozone season allowance may be used for noncompliance with the emissions concentration limits in Section 217.388(a)(1), low usage limitations in Section 217.388(a)(3) or an annual limitation in an emissions averaging plan in Section 217.388(a)(2).

3) The owner or operator must submit a report documenting the circumstances that required the use of NO_x allowances and identify what actions will be taken in subsequent years to address these circumstances and must transfer the NO_x allowances to the Agency's federal NO_x retirement account. The report and the transfer of allowances must be submitted by October 31 for exceedances during the ozone season and March 1 for exceedances of the emissions concentration limits, the annual emissions averaging plan limits, or low usage limitations. The report must contain the NATS serial numbers of the NO_x allowances.

e) Notwithstanding subsection (c), the owner or operator of a turbine subject to this Subpart and located at the petroleum refinery in Channahon must comply with the emissions concentration in Section 217.388(a)(1)(E)(i) on and after May 1, 2025, until January 1, 2028, and must comply with the emissions concentration in Section 217.388(a)(1)(E)(ii) on and after January 1, 2028.

(Source: Amended at 49 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 under~~pursuant to~~ subsection (d~~e~~)(1) or (d~~e~~)(2) of this Section as follows:

1) By January 1, 2008, for affected engines listed in Appendix G. Performance tests must be conducted on units listed in Appendix G, even if the unit is included in an emissions averaging plan under~~pursuant to~~ Section 217.388(a)(2).

2) By the applicable compliance date set forth in Section 217.392, or within the first 876 hours of operation per calendar year, whichever is later:

A) For affected units not listed in Appendix G that operate more than 876 hours per calendar year; and

B) For units that are not affected units that are included in an emissions averaging plan and operate more than 876 hours per calendar year.

3) Once within the five-year period after the applicable compliance date as set forth in Section 217.392 or once within the five-year period following the date the unit commenced operation:

A) For affected units that operate fewer than 876 hours per calendar year; and

B) For units that are not affected units that are included in an emissions averaging plan and that operate fewer than 876 hours per calendar year.

b) On and after May 1, 2025, an owner or operator of a reciprocating internal combustion engine or turbine, including those that are part of an emissions averaging plan, must either conduct performance testing or install and operate a CEMS in compliance with the requirements in this Section, as applicable, unless the engine or turbine operates as a low usage unit under Section 217.388(a)(3)(B). An owner or operator must conduct an initial performance test under subsection (d)(1) or (d)(2) of this Section. Performance testing of NOx emissions for engines and turbines for which construction or modification occurs after May 1, 2025, must be conducted within 60 days after achieving maximum operating rate but no later than 180 days after initial startup of the new or modified engine or turbine, in accordance with this Section. e) Notwithstanding subsection (c), the owner or operator of a turbine subject to this Subpart and located at the petroleum refinery in Channahon must comply with the emissions concentration in Section 217.388(a)(1)(E)(i) on and after May 1, 2025, until January 1, 2028, and must comply with the emissions concentration in Section 217.388(a)(1)(E)(ii) on and after January 1, 2028.

c~~b~~) An owner or operator of an engine or turbine must conduct subsequent performance tests under~~pursuant to~~ subsection (c~~b~~)(1), (c~~b~~)(2), and (c~~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 under~~pursuant to~~ subsection (d~~e~~) 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.

dc) Testing Procedures:

1) For an engine: The owner or operator must conduct a performance test using Method 7 or 7E of 40 CFR 60, appendix A-4, as incorporated by reference in Section 217.104. Each compliance test must consist of three separate runs, each lasting a minimum of 60 minutes. NO_x emissions must be measured while the affected unit is operating at peak load. If the unit combusts more than one type of fuel (gaseous or liquid), including backup fuels, a separate performance test is required for each fuel.

2) For a turbine: The owner or operator must conduct a performance test using the applicable procedures and methods in 40 CFR 60.4400, as incorporated by reference in Section 217.104.

ed) Monitoring: Except for those years in which a performance test is conducted under pursuant to subsection (a), (b), or (c) of this Section, the owner or operator of an affected unit or a unit included in an emissions averaging plan must monitor NO_x concentrations annually, once between January 1 and May 1 or within the first 876 hours of operation per calendar year, whichever is later. If annual operation is less than 876 hours per calendar year, each affected unit must be monitored at least once every five years. Monitoring must be performed as follows:

1) A portable NO_x monitor utilizing method ASTM D6522-2000, as incorporated by reference in Section 217.104, or a method approved by the Agency must be used. If the engine or turbine combusts both liquid and gaseous fuels as primary or backup fuels, separate monitoring is required for each fuel.

2) NO_x and O_2 concentrations measurements must be taken three times for a duration of at least 20 minutes. Monitoring must be done at highest achievable load considering the ambient conditions during operation. The concentrations from the three monitoring runs must be averaged to determine whether the affected unit is in compliance with the applicable emissions concentration or emissions averaging plan, as specified in Section 217.388.

fe) Instead of complying with the requirements of subsections (a), (b), (c), and (d) and (e) of this Section, an owner or operator may install and operate a CEMS on

an affected unit that meets the applicable requirements of 40 CFR 60, subpart A and appendix B, or 40 CFR 75, incorporated by reference in Section 217.104, and complies with the quality assurance procedures specified in 40 CFR 60, appendix F or 40 CFR 75, as incorporated by reference in Section 217.104, or an alternate procedure as approved by the Agency or USEPA in a federally enforceable permit. Until May 1, 2025, the~~The~~ CEMS must be used to demonstrate compliance with the applicable emissions concentration or emissions averaging plan only on an ozone season and annual basis. On and after May 1, 2025, the CEMS must be used to demonstrate compliance with the applicable emissions concentration or emissions averaging plan only on a 30-day rolling average basis.

~~g~~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 under~~pursuant to~~ Section 217.388(a)(3)~~ or low usage units using NO_x allowances to comply with the requirements of this Subpart pursuant to Section 217.392(c)~~, unless the~~such~~ units are included in an emissions averaging plan. Despite ~~Notwithstanding~~the above circumstances, when, in the opinion of the Agency or USEPA, it is necessary to conduct testing to demonstrate compliance with Section 217.388, the owner or operator of a unit must, at his or her own expense, conduct the test in accordance with the applicable test methods and procedures specified in this Section within 90 days after receipt of a notice to test from the Agency or USEPA.

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

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

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

(Source: Amended at 49 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 under~~pursuant to~~ Section 217.386(c~~b~~), and low usage units) or an affected unit that is not exempt under~~pursuant to~~ Section 217.386(c~~b~~) and is not subject to the

low usage exemption of Section 217.388(a)(3) must maintain records that demonstrate compliance with the requirements of this Subpart Q, which include, but are not limited to:

1) Identification, type (e.g., lean-burn, gas-fired), and location of each unit.

2) Calendar date of the record.

3) Before May 1, 2025, the~~The~~ number of hours the unit operated on a monthly basis and during each ozone season. On and after May 1, 2025, daily operating hours.

4) Type and quantity of the fuel used on a daily basis.

5) On and after May 1, 2025, total mass emissions on a daily basis and on a 30-day rolling average basis.

6~~5~~) The results of all monitoring performed on the unit and reported deviations.

7~~6~~) The results of all tests performed on the unit.

8~~7~~) The plan for performing inspection and maintenance of the units, air pollution control equipment, and the applicable monitoring device underpursuant to Section 217.388(a)(4).

9~~8~~) A log of inspections and maintenance performed on the unit's air emissions, monitoring device, and air pollution control device. These records must include, at a minimum, date, load levels and any manual adjustments, along with the reason for the adjustment (e.g., air to fuel ratio, timing or other settings).

10~~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.

11~~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.

12~~11~~) Any NO_x allowance reconciliation reports submitted underpursuant to Section 217.392(d~~c~~)(3).

13) If the engine or turbine is used as an emergency or standby unit, records documenting the annual hours of operation of these units in non-emergency situations.

b) The owner or operator of an affected unit or unit included in an emissions averaging plan must maintain the records required by subsection (a) or (ed) of this Section, as applicable, for a period of five years at the source at which the unit is located. The records must be made available to the Agency and USEPA upon request.

c) Reporting Requirements

1) The owner or operator must notify the Agency in writing 30 days and five days prior to testing, underpursuant to Section 217.394(a) and (cb) and:

A) If, after the 30-days notice for an initially scheduled test is sent, there is a delay (e.g., due to operational problems) in conducting the performance test as scheduled, the owner or operator of the unit must notify the Agency as soon as possible of the delay in the original test date, either by providing at least seven days prior notice of the rescheduled date of the performance test or by arranging a new test date with the Agency by mutual agreement;

B) Provide a testing protocol to the Agency 60 days prior to testing; and

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

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

2) UnderPursuant to the requirements for monitoring in Section 217.394(ed), the owner or operator of the unit must report to the Agency any monitored exceedances of the applicable NO_x concentration from Section 217.388(a)(1) or (a)(2) within 30 days after performing the monitoring.

3) Within 90 days after permanently shutting down an affected unit or a unit included in an emissions averaging plan, the owner or operator of the unit must withdraw or amend the applicable permit to reflect that the unit is no longer in service.

4) Until May 1, 2025, if~~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_x emissions for the ozone season and for the annual control period;

ii) The total mass of actual NO_x emissions for the ozone season and annual control period for each unit included in the averaging plan;

iii) The calculations that demonstrate that the total mass of actual NO_x emissions are less than the total mass of allowable NO_x emissions using equations in Sections 217.390(h~~f~~) and (ig); and

iv) The information required to determine the total mass of actual NO_x emissions and the calculations performed in subsection (c)(4)(B)(iii) of this Section.

5) On and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by May 1 following the previous calendar year, the owner or operator must submit to the Agency a report that includes the following:

A) For all units that are part of the emissions averaging plan, the total mass of allowable NO_x emissions on a 30-day rolling average basis.

B) The total mass of actual NO_x emissions on a 30-day rolling average basis for each unit included in the averaging plan.

C) The calculations that demonstrate that the total mass of actual NO_x emissions is less than the total mass of allowable NO_x emissions using equations in Sections 217.390(j) and (k).

D) The daily information required to determine the total mass of actual NO_x emissions on a 30-day rolling average basis.

6~~5~~) If operating a CEMS, the owner or operator must submit an excess emissions and monitoring systems performance report in accordance with the requirements of 40 CFR 60.7(c) and 60.13 or 40 CFR 75, incorporated by reference in Section 217.104, or an alternate procedure approved by the Agency or USEPA and included in a federally enforceable permit.

7~~6~~) If using NO_x allowances to comply with the requirements of Section 217.388, reconciliation reports as required by Section 217.392(d~~c~~)(3).

d) On and after May 1, 2025, the owner or operator of an emission unit subject to Subpart Q must submit an annual compliance certification report that demonstrates compliance with the applicable requirements to the Agency for the preceding calendar year by May 1 of the following year. The owner or operator may submit the annual compliance certification report to the Agency along with the Annual Emissions Report required under 35 Ill. Adm. Code 254 or the compliance certification required under 415 ILCS 5/39.5(7)(p)(v). The compliance report must include the following:

1) Identification, type (e.g., lean-burn, gas-fired), and location of the emission unit.

2) Methods used for determining compliance, including an emissions averaging plan, if applicable, a description of test methods, monitoring, recordkeeping, and reporting requirements.

3) A certification of compliance with the applicable emissions concentration or identification of the periods of noncompliance with a quantification of the excess emissions concentration and the excess emissions.

4) For each calendar month, the highest 30-day rolling average emission rate. The emissions data must be reported in the measurement units of the applicable emissions concentration.

5) The emission unit's daily and total operating hours, capacity utilization, and the percent operation of any CEMS during the hours the emission unit was operating.

6) A certification of compliance with all applicable requirements except those identified signed by a responsible official that contains the following: "I certify, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete."

e~~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_x emissions for each calendar year;

2) For each unit complying with Section 217.388(a)(3)(B), maintain a record of bhp or MW-hours operated each calendar year; and

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

f~~e~~) Instead of complying with the requirements of subsection (a) of this Section, subsection (b) of this Section, subsections (c)(1) through (c)(5) of this Section, and subsection (e~~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 217.104~~217.107~~.

(Source: Amended at 49 Ill. Reg. _____, effective_____)

Section 217.APPENDIX I: Compliance Dates for Certain Emission Units at Petroleum Refineries

Phillips 66 Company (Facility ID 119090AAA)

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

CITGO Petroleum Corporation (Facility ID 197010AAI)

Point	Emission Unit Description	Compliance Date
0011	Coker 1 Heater	January 1, 2026
0064	Coker 1 Heater	January 1, 2026
0012	Coker 1 Heater	January 1, 2026
0019	No. 2 Catalytic Reformer Charge Heater and Stabilizer Reboiler	July 1, 2026
0066	No. 2 Catalytic Reformer Interheater and Naphtha Stripper Reboiler	July 1, 2026
0069	Reactor Charge Heater	January 1, 2026

0071	No. 1 Catalytic Reformer Reheat Furnace	January 1, 2026
125B-1	Diesel Hydrotreater Feed Heater	January 1, 2026
125B-2	Diesel Hydrotreater Stripper Reboiler	January 1, 2026

Equistar Chemicals LP (Facility ID 063800AAC)

Point	Emission Unit Description	Compliance Date
0025	Steam Superheater	December 31, 2027
0026(a)	Cracking Furnaces 101/102	May 1, 2026
0026(a)	Cracking Furnaces 105/106	May 1, 2026
0026(a)	Cracking Furnaces 107/108	May 1, 2026
0026(a)	Cracking Furnace 113	May 1, 2026

(Source: Added at 49 Ill. Reg. _____, effective_____)