

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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

NOTICE

TO: Don Brown
Clerk
Illinois Pollution Control Board
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Chicago, IL 60605
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ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Illinois Pollution Control Board the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY’S RESPONSES TO IERG’S PRE-FILED QUESTIONS FOR ILLINOIS EPA WITNESS AT SECOND HEARING, a copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

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

DATED: November 20, 2024

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S
RESPONSES TO IERG'S PRE-FILED QUESTIONS
FOR ILLINOIS EPA WITNESS AT SECOND HEARING

NOW COMES the Illinois Environmental Protection Agency ("Illinois EPA" or "Agency"), by one of its attorneys, and submits the following responses to the pre-filed questions submitted by the Illinois Environmental Regulatory Group ("IERG"), dated November 14, 2024, for the Illinois EPA Witness at the Second Hearing scheduled for November 21, 2024.

Technical Support Document

1. Is it correct that, in interpreting USEPA's definition of RACT as: "The lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility," the Agency believes that USEPA could have been referring "particular source" to individual emission units or an emission source with multiple emission units?

Yes, and at hearing in response to IERG's question, Mr. Davis, the Agency's witness, responded as follows:

MR. HUNTER: Question 1: Is it correct that USEPA defines Reasonably Available Control Technology or "RACT" as "The lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility"?

MR. DAVIS: Yes.

MR. HUNTER: How does the Agency define "a particular source" as utilized by USEPA in the above definition?

MR. DAVIS: The Agency believes that USEPA could have been referring to individual emission units or an emission source with multiple emission units. The Agency is not aware that it has ever attempted to define a particular source.

Transcript of September 26, 2024, Hearing at 14:24; 15:1-15. To further elaborate,

the Agency believes that “a particular source” is a particular “stationary source”, such as an individual source with specific emission units or a group of sources, such as those in the various source categories under Part 217.

- a. Would the Agency explain how its interpretation of RACT would differ if USEPA intended for “particular source” to apply to individual emission units or individual sources.

The Agency does not think the interpretation of RACT would necessarily differ. This is 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.

SUBPART D: NO_x GENERAL REQUIREMENTS

Section 217.152 Compliance Date and 30-day Rolling Average Basis

2. Is it correct that, in the Agency’s Second Post-Hearing Comments, the Agency references USEPA’s conclusion related to the Good Neighbor Plan 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. . .”?

Yes.

- a. Can the Agency explain its statement that “[s]uch time frames appear similarly analogous in the context of this proposed rulemaking”?

The Agency is conveying that based upon discussions with affected sources relating to the time frame necessary for major capital projects, which includes engineering, funding, permitting, installation, and certification, such time frame is similar to USEPA’s conclusion that three years is generally an adequate amount of time for sources to install additional air pollution control equipment or upgrade to newer units.

3. Is it correct that the Agency now proposes several extensions of compliance dates for the units listed under APPENDIX I in the Second Post-Hearing Comments because of successful demonstrations of sufficient necessity from the sources?

Yes, the Agency’s position is that necessity was sufficiently demonstrated.

4. Is the Agency continuing to consider additional proposed revisions that were not included in the Agency’s Second Post-Hearing Comments?

Yes.

- a. If so, when does the Agency expect to provide its decisions on those pending

requests to the sources that submitted the requests?

The Agency filed its Third Post-Hearing Comments on November 20, 2024.

Section 217.157 Testing and Monitoring

5. Since the conclusion of the First Hearing, has the Agency received any proposed revisions to this section to allow representative pair testing when a source has identical emission units within the standard 5-year testing interval?

The Agency has discussed the concept with subject sources but is not aware of receiving any proposed revisions that would be adequate to meet generally acceptable testing requirements.

6. Since the conclusion of the First Hearing, has the Agency received any proposed revisions to add a new subsection (a)(8) to Section 217.157 providing that owners or operators with emission units subject to the proposed rule have 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?

Yes. The Agency filed its Third Post-Hearing Comments on November 20, 2024, and included proposed revisions.

7. Since the conclusion of the First Hearing, has the Agency finalized its consideration of the proposed revisions to Section 217.157(d) to provide similar flexibility for multiple heaters venting to a common stack relying on a performance test?

Yes.

- a. If yes, has the Agency decided whether it will propose the revisions to the Board?

The Agency filed its Third Post-Hearing Comments on November 20, 2024.

8. Since the conclusion of the First Hearing, has the Agency finalized its consideration of the proposed revisions to Section 217.157 to provide for a reduction in the reporting burden in such scenarios 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 emission averaging plan and the reporting requirements for an Emissions Averaging Plan ("EAP")?

The Agency's Third Post-Hearing Comments filed November 20, 2024, include proposed revisions for common stacks.

- a. If yes, has the Agency decided whether it will propose the revisions to the Board?

Yes, see above.

Section 217.158 Emissions Averaging Plans

9. Is it correct that USEPA has indicated to Illinois EPA that Illinois EPA must include a 10% environmental benefit in its NO_x RACT averaging provisions?

Yes.

- a. If so, please provide all records reflecting this indication.

As previously stated in the Agency's Statement of Reasons, page 2, the Agency received USEPA pre-rulemaking feedback that included certain deficiencies, *see*, R11-24 and R11-26 (cons.), *Letter from Cheryl L. Newton, Director of USEPA Air and Radiation Division, Region 5, to Laurel Kroack, Chief, Bureau of Air, Illinois EPA*, dated March 9, 2011. This letter, in addition to other correspondence, is attached.

USEPA explained to the Agency that an emissions averaging plan is a type of Economic Incentive Program ("EIP") covered by *USEPA's Improving Air Quality with Economic Incentive Programs*, EPA-452/R-01-001 (January 2001), which provides guideline requirements for emissions trading programs. As such, the emissions averaging plan requirements must meet certain EIP requirements.

Particularly, USEPA clarified two specific shortfalls in Illinois' emissions averaging plan requirements: (i) The EIP guidelines require EIPs, including emissions averaging plans, to provide for a specific emissions cap or an environmental write-off of 10 percent on calculated allowable emissions to generate a benefit to the environment and (ii) EIPs for volatile organic compounds or NO_x sources controlled for purposes of attaining the ozone standard cannot allow averaging times longer than 30 days.

10. Is it correct that USEPA has indicated to Illinois EPA that it will not approve the Illinois EPA's NO_x RACT SIP submittal without inclusion of a required 10% environmental benefit in its NO_x RACT averaging provisions?

Yes.

- a. If "yes", is this consistent with the language in the Economic Incentive Programs ("EIP") guidance?

Yes.

11. Is Illinois' NO_x Emissions Averaging Plan being submitted to USEPA as a discretionary Economic Incentive Program for SIP revision and USEPA approval, or is the Emissions Averaging Plan a pre-existing Economic Incentive Program built into Illinois' NO_x

RACT regulation?

A Discretionary Economic Incentive Program for SIP revision and USEPA approval.

12. Are you aware of any other state NO_x RACT averaging or emission cap provisions that require a 10% environmental benefit?

Yes.

- a. If so, what states and what are the circumstances under which the 10% environmental benefit is required?

Ohio, but it does not include the environmental benefit. However, USEPA informed the Agency that while it is true that Ohio does not include the 10% reduction in the averaging plans explicitly, Ohio's averaging plans must be submitted to and approved by USEPA in Ohio's SIP under OAC Ann. 3745-110-03(I)(2). Therefore, this gives USEPA the authority to ensure Ohio's emissions averaging plans comport with the Economic Incentive Program ("EIP"). When a nonattainment area does not have an approvable attainment demonstration, a 10% extra reduction in emissions is required by an EIP. As previously stated, an emissions averaging plan is a type of EIP covered by *USEPA's Improving Air Quality with Economic Incentive Programs*, EPA-452/R-01-001 (January 2001), which provides guideline requirements for emissions trading programs. "If your trading or CAIF [Clean Air Investment Fund] EIP covers a nonattainment area that is needing and lacking an approved attainment demonstration (NALD) then your EIP must meet the environmental benefit requirement by requiring a 10 % extra reduction in emissions." *Id.* at 51. USEPA informed the Agency that if the Agency would prefer to adopt the Ohio approach of submitting averaging plans to the USEPA in order to be approved into the SIP, that is acceptable. However, it would be more transparent to include the exact 10% additional reduction provision in the Illinois rule for nonattainment areas lacking an approved attainment demonstration. *See*, May 30, 2024, email, attached.

Wisconsin includes an environmental benefit factor of 10% for multi-facility averaging, see Wis. Adm. Code NR 428.25; however, USEPA informed the Agency that it has communicated with Wisconsin that it will need to comport with the EIP by including a 10% environmental benefit in order for the NO_x averaging program to be approvable as RACT. *Id.*

b. Have any of these state NOx RACT SIPs been approved by USEPA?

As stated above, USEPA has communicated with Wisconsin that it will need to comport with the EIP by including a 10% environmental benefit in order for its NOx averaging program to be approvable as RACT.

13. Did the Illinois EPA consult any other states relative to the technical feasibility and economic reasonableness of requiring a 10% environmental benefit in NOx RACT regulations? If so, which states?

No.

a. If so, include a detailed explanation of the other states' analyses.

N/A

14. Is it correct that USEPA's guidance "Improving Air Quality with Economic Incentive Programs" (EPA-452/R-01-001) (January 2001) was never published in the Federal Register?

To the Agency's best knowledge, that is correct.

15. Is the 10% environmental benefit portion of the Illinois EPA's NOx RACT averaging proposal required by the Clean Air Act or its implementing regulations?

Not explicitly, but there are many provisions throughout Part 217 that are considered RACT but are not explicitly required by the Clean Air Act ("CAA"). For instance, there is no specific requirement for compliance on a 30-day rolling average basis in the CAA, but it is the longest averaging period that is acceptable to the USEPA for RACT rules. Further, there is no specific requirement for a state to include an emissions averaging plan in its RACT rules at all. Averaging plans provide flexibility to subject sources, or subject sources can comply with RACT limits on a unit basis.

However, the CAA states that each state implementation plan must include enforceable emission limitations and other control measures, means, or techniques, including economic incentives. 42 USC § 7410(a)(2)(A).

It is important to point out that while the Chicago and Metro East nonattainment areas ("NAAs") are currently designated as moderate, the monitoring data available to the Agency and the public for the 2021 to 2023 ozone seasons indicate that both NAAs will be reclassified as serious subsequent to the areas' moderate attainment date of August 3, 2024, as the ozone design values at individual monitors in each area are above the current ozone standard. Based on previous actions by USEPA, this reclassification will likely occur in 2025.

- a. If so, which specific provisions?

Section 110(a)(2)(A) of the CAA provides as follows:

(2) Each implementation plan submitted by a State under this chapter shall be adopted by the State after reasonable notice and public hearing. Each such plan shall—

(A) include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter;

42 USC § 7410(a)(2)(A).

16. Is the authority for the 10% environmental benefit concept in the NO_x RACT averaging portion of the Illinois EPA's proposal found only in non-binding USEPA guidance?

The authority to include an environmental benefit for averaging plans does not come from any guidance. 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. The Board has the authority to adopt the Agency's proposal. When the Agency initially proposed the Part 217 RACT rules, it included emissions averaging plans to provide sources a measure of flexibility in compliance. However, USEPA identified deficiencies in Illinois' rulemaking proposal and indicated that the emissions averaging plan provisions must meet the EIP requirements and continues to inform the Agency accordingly. *See, Letter from Cheryl L. Newton, Director of USEPA Air and Radiation Division, Region 5, to Laurel Kroack, Chief, Bureau of Air, Illinois EPA, dated March 9, 2011. Including environmental benefit provisions will help ensure the SIP submittal is approvable by USEPA and will provide environmental benefit to NAAs.*

- a. If not, where else is it found?

See above.

17. Is it correct that USEPA's 1994 Economic Incentive Programs Rule at 40 CFR 51, Subpart U is binding only on so called "statutory economic incentive programs," meaning EIPs submitted to comply with Clean Air Act Sections 182(g)(3), 182(g)(5), 187(d)(3), or 187(d), and that for all other EIPs, Subpart U is non-binding guidance?

The regulation provides as follows:

(a) The rules in this subpart apply to any statutory economic incentive program (EIP) submitted to the EPA as an implementation plan

revision to comply with sections 182(g)(3), 182(g)(5), 187(d)(3), or 187(g) of the Act. Such programs may be submitted by any authorized governmental organization, including States, local governments, and Indian governing bodies.

(b) The provisions contained in these rules, except as explicitly exempted, shall also serve as the EPA's policy guidance on discretionary EIP's submitted as implementation plan revisions for any purpose other than to comply with the statutory requirements specified in paragraph (a) of this section.

40 CFR § 51.490.

18. Is it correct that Illinois EPA's contemplated NO_x RACT SIP is not being submitted to comply with Clean Air Act Sections 182(g)(3), 182(g)(5), 187(d)(3), or 187(d)?

Yes.

19. Is it correct that in USEPA's guidance document (Improving Air Quality with Economic Incentive Programs, EPA-452/R-01-001, January 2001), USEPA indicated that this guidance superseded or would take precedence over the guidance for developing discretionary economic incentive programs contained in USEPA's 1994 Economic Incentive Programs Rule at 40 CFR 51, Subpart U (59 FR 16690)?

Yes.

20. Is it correct that USEPA states in Section 1.5 of its guidance (EPA-452/R-01-001) that it will remove the discretionary economic incentive program provision (40 CFR 51.490(b)) of 40 CFR Part 51, Subpart U, when the final version of its guidance (EPA-452/R-01-001) is published?

Yes.

- a. Has USEPA finalized the guidance and updated 40 CFR Part 51, Subpart U in accordance with that statement?

No.

21. Is it correct that in USEPA's guidance (EPA-452/R-01-001), USEPA indicates that the guidance does not represent USEPA's final action regarding discretionary Economic Incentive Programs (EIPs) and that the guidance is non-binding policy for discretionary EIPs?

Yes.

22. Did Illinois EPA evaluate whether the 10% environmental benefit portion of Illinois EPA's proposal is necessary to demonstrate attainment? If so, what did the Agency

conclude?

The Agency did not specifically evaluate the environmental benefit factor. RACT rules are required for moderate (and above) nonattainment areas (“NAAs”). Neither of the ozone NNAs in Illinois attained the ozone standard by the moderate attainment date of August 3, 2024. Therefore, both areas will be reclassified to serious by the USEPA in the near future. The Agency’s analysis indicates 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.

- a. If Illinois EPA concluded that the 10% environmental benefit portion of Illinois EPA’s proposal is necessary to demonstrate attainment, please provide a detailed explanation of why it is necessary for attainment.

As stated above, additional emission reductions beyond what is included in the proposed revisions will be necessary to attain the ozone National Ambient Air Quality Standard (“NAAQS”) in both Illinois NAAs.

23. Is there a compliance margin built into the existing or proposed NOx RACT emission rate limits?

The Agency does not understand this question but is unaware of any compliance margin that would be “built into” any emission rate limits.

- a. If so, which NOx RACT emission rate limits is it built into and what is the compliance margin for each?

N/A

24. Is it correct that where two or more boilers and/or process heaters vent to a common stack, the units are required by Section 217.157(d) to comply using an emission averaging plan?

Yes, however the Agency has proposed revisions to Section 217.157(d) as set forth in its Third Post-Hearing Comments.

- a. If so, what is the justification for requiring a 10% environmental benefit emissions deduction?

See above.

- b. How many sources in Illinois have common stack units that are covered by an emissions averaging plan?

The Agency is aware of at least 2 sources with common stack units covered by an averaging plan.

- c. How many new sources with two or more boilers and/or process heaters venting to a common stack will be required by 217.157(d) to comply using an emission averaging plan due to the lower 50 mmBtu/hr applicability for Boilers and process heaters?

There 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.

25. Are there alternatives other than requiring a 10% environmental benefit emissions deduction to satisfy the need for the NO_x RACT SIP to include an environmental benefit?

One alternative would be for all units at a source to comply with the emission limits, rather than the option of complying with an averaging plan. There are other options that states can consider in the 2001 EIP guidance document cited above, such as emission caps for sources, 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.

- a. If so, has Illinois EPA evaluated any alternatives other than deducting 10% to satisfy the need for the NO_x RACT SIP to include an environmental benefit?

Other EIP approaches were discussed with affected sources, however, the sources were not amenable to those approaches as set forth in the guidance.

- i. If so, which alternatives?

An emissions cap was discussed by the Agency and subject sources.

- ii. If not, why not?

N/A

26. Are there any circumstances under which Illinois EPA would be willing to consider NO_x RACT averaging without a 10% environmental benefit and to submit a NO_x RACT SIP to USEPA that does not contain a 10% environmental benefit for NO_x RACT averaging?

No. As explained above under Question 9, the Agency received pre-rulemaking feedback from USEPA addressing the fact that emissions averaging plans must meet the EIP requirements, and throughout all the Agency's outreach with USEPA on requests from sources for proposed revisions, continues to inform the Agency of these requirements, specifically as to the 10% environmental benefit.

- a. If so, what are those circumstances?

N/A

27. Since the conclusion of the First Hearing, has the Agency received any proposed revisions to Section 217.158 to include source-specific emission caps as an acceptable compliance option?

After the First Hearing, the Agency received proposed revisions for emission caps during maintenance turnaround periods. Proposed revisions, including those caps, were set forth in the Agency's Second Post-Hearing Comments, filed October 31, 2024.

28. Has Illinois EPA evaluated how the results of the Presidential election and a potential change in the USEPA Administration could impact USEPA's position on the need for a NOx RACT SIP to include a 10% environmental benefit?

No.

29. Is it correct that 40 CFR Part 51, Subpart U, does not require or even suggest as guidance a 10% environmental benefit for RACT emissions averaging unless there is trading with non-RACT sources?

Again, while there is no specific reference requiring a 10% environmental benefit in 40 CFR Part 51, Subpart U, the Agency is adhering to the guidance, as noted above, and the advice of USEPA regarding SIP approvability.

30. How does the Agency reconcile the email communication between the Agency and USEPA's Kathleen Mullen, with regard to the required sunset of the Maintenance Turnaround ("TA") provisions, and the now proposed revisions to subsection (j)(1) through (j)(5), providing a daily emissions cap for refineries demonstrating compliance through an emissions averaging plan during periods of maintenance turnaround, found in the Agency's the Second Post-Hearing Comments?

The Agency had originally proposed sunseting the maintenance turnaround provisions because they did not provide for emission limits that applied at all times. After affected sources requested that the Agency retain these provisions, the Agency engaged in discussions with USEPA and the affected sources to draft turnaround language that was not an exemption from emission limits for sources during maintenance turnarounds.

- a. Would the Agency explain how these proposed revisions would impact subject sources?

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.

**SUBPART Q: STATIONARY RECIPROCATING INTERNAL COMBUSTION
ENGINES AND TURBINES**

Section 217.386 Applicability

31. Is it correct that the Agency “does not believe that a 15 ton unit-level applicability threshold for engines and turbines is appropriate because in many cases sources have many units that are identical or similar”?

Yes.

- a. Is the Agency amenable to proposed revisions to this section that would provide a 15 ton “per source”- level applicability threshold for engines and turbines, rather than on a “per unit” basis?

At this time, the Agency is not amenable to such a revision, and no source has contacted the Agency indicating that this revision is needed or would be helpful.

**SUBPART U: NO_x CONTROL AND TRADING PROGRAM FOR SPECIFIED NO_x
GENERATING UNITS**

Section 217.456 Compliance Requirements

32. Is the Agency 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 or “non-EGUs” with design heat input greater than 250 mmBtu/hour?

No. As the Agency stated in its Post-Hearing Comments, filed with the Board on October 18, 2024, “Theoretically, the Agency could submit two SIP submittals at different times for different portions of rules that were revised in a single rulemaking. However, USEPA indicated that it cannot assure the Agency that the changes to Subpart U that IERG is seeking are approvable. As the Agency testified at hearing, amendments to Subpart U would also require approval from a different branch of USEPA and that would cause additional delays.”

The Agency reiterates that USEPA took final action to find that 11 states, including Illinois, failed to submit SIP revisions required by the CAA by May 1, 2023, for certain nonattainment areas classified as Moderate for the 2015 ozone NAAQS (in Illinois, the Chicago and Metro East areas). *See, Findings of Failure To Submit State Implementation Plan Revisions for Reclassified Moderate Nonattainment Areas for the 2015 Ozone National Ambient Air Quality Standards*, 88 Fed. Reg. 71757 (October 18, 2023), effective November 17, 2023. This action triggered certain

CAA deadlines for the imposition of mandatory sanctions if a state does not submit a complete SIP addressing the outstanding requirements and for USEPA to promulgate a Federal Implementation Plan if USEPA does not approve the state's SIP revision addressing the outstanding requirements.

33. In the event that revisions to Subpart U are filed by the Agency or another interested party, what are the next steps for the Agency to submit a second and separate SIP submittal for the different portions of rules that are proposed in this rulemaking?

If another interested party were to propose revisions to Subpart U in this rulemaking, the Agency would advise the Board not to adopt such revisions. As stated above, the Illinois EPA has no assurance that the revisions would be approvable by USEPA. Further, proposed revisions submitted after the second and last hearing in this rulemaking could cause delays in the Board's adoption of the rule should the Board, Agency, or other participants have questions about or suggested changes to the proposal.

34. Do 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 satisfy the intent of complying with 40 CFR 96, subpart H as promulgated in 217.456(c), (e)(1)(B) through (D), and (e)(2)?

The Agency has no way of knowing absent a line-by-line assessment of Part 96, Subpart H, or a determination from USEPA.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

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

DATED: November 20, 2024

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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REPLY TO THE ATTENTION OF:

(A-18J)

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Springfield, Illinois 62794-9276

RECEIVED
STATE OF ILLINOIS

MAR 15 2011

Environmental Protection Agency
BUREAU OF AIR

Dear Ms. Kroack:

This letter provides pre-rulemaking feedback on Illinois Environmental Protection Agency submittals dated September 1, 2009 and September 2, 2009, which document State-adopted Nitrogen Oxide (NOx) emission control rule revisions intended to meet Clean Air Act (CAA) and U.S. Environmental Protection Agency requirements for NOx Reasonably Available Control Technology (RACT). Although we have found these rule revisions to generally meet the NOx RACT requirements, we have noted certain deficiencies or problems with the rules that would prevent us from approving these rule revisions as a revision of the Illinois State Implementation Plan fully meeting the CAA and EPA NOx RACT requirements.

Our comments on your submitted NOx RACT rule revisions are attached. If you have any questions on these comments or wish to further discuss the bases for these comments, please contact Edward Doty of my staff, at 312-886-6057, or via email at doty.edward@epa.gov.

Sincerely,

Cheryl L. Newton
Director

Air and Radiation Division

Attachment

Attachment

**Nitrogen Oxide Reasonably Available Control Technology (RACT)
Rule Deficiencies and Issues Noted in Illinois' September 1, 2009 and
September 2, Submittals**

SEPTEMBER 1, 2009 SUBMITTAL:

**Nitrogen Oxide (NOx) Emissions from Stationary Reciprocating Internal Combustion
Engines and Turbines**

Part 211 Definitions and General Provisions:

1. Section 211.1920 defines "Emergency or Standby Unit." These units are exempted from NOx emission control under section 211.386(b)(1). The exemption of these units from the NOx RACT emission controls is not the problem here. The problem noted here stems from the fact that section 211.1920 has been amended to allow these sources to operate for an additional 50 hours per year in non-emergency situations and still retain their exempted status. We understand that additional hours of operation for these units is needed to test the engines in advance of emergency situations. Therefore, we find the additional hours of operation to be acceptable. We note, however, that the recordkeeping section of the NOx RACT rules does not require the owners/operators of these units to keep records of the number of hours these units are used in non-emergency mode. Without such recordkeeping, the 50 hour non-emergency use limit is unenforceable. The recordkeeping requirements in section 217.396 must be amended to require the owners/operators of these units to keep records documenting the annual hours of operation of these units in non-emergency situations.

Part 217 Nitrogen Oxides Emissions:

Section 217.386 Applicability

2. Section 217.386(b) exempts any unit that is or has been [emphasis added] used for a specified purpose (purposes specified in sections 217.386(b)(1)-(5)) from the NOx RACT requirements. The term "has been" is confusing and seems to conflict with the intent of section 217.386(c), which requires an owner/operator to notify the Illinois Environmental Protection Agency (IEPA) when an exemption no longer applies to an exempted unit. Illinois should remove the term "has been" from the start of section 217.386(b), and should make it clear that a unit that is no longer used for an exempted purpose may be subject to a NOx emission control requirement.

Section 217.388 Control and Maintenance Requirements

3. Section 217.388(a)(2)(B) refers to section 217.386(a)(1)(B), which does not exist in the rule set documented in the September 1, 2009, submittal.

4. Section 217.388(a)(3) allows a unit to qualify for exemption from NOx emission limits (but not from testing and recordkeeping requirements) if the source facility meets one of two possible low usage limits. Subsection (A) of this section states that the unit is defined to be a low usage unit if ... the potential to emit (PTE) is no more than 100 tons per year NOx 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 emission control requirements of section 217.386, and the NOx PTE limit is contained in a Federally enforceable permit. The NOx emission limit of this low usage unit definition seems to conflict with the unit applicability limit expressed in section 217.386(a)(2), which sets a lower source facility applicability emission limit at 100 tons NOx per year PTE regardless of the unit types contributing to the potential NOx emission rate.
5. Section 217.388(b)(2) refers to section 217.388(c), which does not exist in the rule set submitted on September 1, 2009.

Section 217.390 Emission Averaging Plans

6. Section 217.390(b)(1) should require the emissions averaging plan to include the applicable NOx emission limit, per section 217.388, for each participating unit. This will facilitate the calculation of allowable emissions and support subsequent enforcement tests.
7. Note that an emission averaging plan is a type of Economic Incentive Program (EIP) covered by EPA's January 2001 "Improving Air Quality with Economic Incentive Programs" (EPA-452/R-01-001), which provides EPA's guideline requirements for emissions trading programs. As such, the emissions averaging plan requirements must meet certain EIP requirements. The documentation supplied with September 1, 2009, rule submittal does not document that the NOx emissions averaging plan requirements comply with the EIP requirements.

Two specific EIP shortfalls or problems noted in Illinois' emissions averaging plan requirements are the following:

- a. 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. Illinois' emissions averaging plan requirements do not provide for this environmental benefit.
- b. In section 16.3 of the appendices of the EIP guidelines, which address requirements for EIPs involving RACT sources, it is stated that the EIP for VOC or NOx sources controlled for purposes of attaining the ozone attainment cannot allow averaging times longer than 30 days. It is noted Illinois' NOx emissions averaging plan requirements would allow averaging of NOx emissions over an entire ozone season, and, therefore, well over 30 days. Illinois must support the need for this longer averaging period or must shorten the averaging period of the NOx emissions averaging plan requirements to no more than 30 days.

Section 217.392 Compliance

7. • Section 217.392(c) allows the use of NOx trading program emission allowances to offset emission control shortfalls and to meet the NOx emission control requirements of section 217.388 (these NOx allowances can originate in any NOx trading program in which the State of Illinois participates). Given the current uncertainty of the NOx emissions trading program for the Clean Air Interstate Rule (CAIR), we are not in a position to approve the use of NOx emission allowances originating in the CAIR-based NOx allowance trading program.
8. Section 217.392(c)(1) specifies the circumstances under which NOx allowances may be used for compliance. Note that this section would allow the owner/operator of a source to define a situation as “an anomalous or unforeseen operating scenario inconsistent with historical operations for a particular ozone season.” The rule does not require the documentation of historical operation information. In addition, the rule places no constraint on how inconsistent the ozone season operation must be. These rule shortfalls will allow abuse of the intent of this rule section and will allow the source owner/operator to use granted NOx emission allowances, which do not necessarily reflect any NOx emission reductions to offset NOx emission control shortfalls. We do not consider this approach to reflect the intent of the Clean Air Act RACT requirements to achieve a certain minimum NOx emission reduction in the ozone nonattainment area through the application of RACT emission reduction requirements.

SEPTEMBER 2, 2009 SUBMITTAL

Nitrogen Oxides Emissions From Various Source Categories

Part 217 Nitrogen Oxides Emissions

Section 217.152 Compliance Date

9. Section 217.152(a) establishes a compliance date of January 1, 2012, for the implementation of the NOx RACT requirements in Subparts E, F, G, H, I, and M. As noted in EPA’s November 29, 2005, Phase 2 ozone implementation policy (70 FR 71617 and 70 FR 71658-71659), the deadline for implementation of NOx RACT rules is the start of the ozone season in 2009, or more specifically, May 1, 2009, well before the January 1, 2012, implementation deadline in this section of Illinois’ NOx RACT rules.

The Phase 2 ozone implementation rule makes it very clear that EPA cannot approve as NOx RACT rules that provide for implementation after May 1, 2009. To achieve approval of the rules as NOx RACT, the State must defend the January 12, 2012 implementation date as being as expeditious as practical. At minimum, given the late implementation date, EPA cannot approve the rules as RACT prior to the scheduled implementation date of the rules.

Section 217.156 Recordkeeping and Reporting

10. Section 217.156(i) requires compliance records for source units in emission averaging plans to cover only ozone season and yearly emissions. Therefore, this rule section supports a minimum emissions averaging period of an entire ozone season, longer than the maximum 30 day averaging period allowed in emission averaging plans under EPA's EIP guidelines (see comment 7.b above). This rule section should require a 30 day averaging period or Illinois must document why an extended averaging period is required.

Section 217.158 Emissions Averaging Plans

11. Section 217.158(b) should also require the listed units included in an emissions averaging plan to also include the allowable emission rate for each unit, as provided in sections 217.164, 217.184, 217.204, 217.224, 217.244, and 217.344, as applicable.
12. Section 217.158(d)(2) should start with "If a unit that was exempt from the requirements of Subpart E, F, G, H, I, or M of this Part pursuant to Section 217.162, 217.182, 217.202, 217.222, 217.242, or 217.342, of this Part, and was not included in an emissions averaging plan as an affected unit, no longer qualifies ..."
13. See Comment 7 above. This comment also applies for emissions averaging plans for miscellaneous NOx sources.

Subpart E: Industrial Boilers

Section 217.164 Emission Limitations

14. As noted above, January 1, 2012, is currently an unacceptable implementation date for NOx RACT.
15. Check the units used at the top of the table column for Emission Unit Type and Rated Heat Input Capacity. Should this not be mmBtu/hr?

Subpart F: Process Heaters

Section 217.184 Emission Limitations

16. As noted above, January 1, 2012, is currently an unacceptable implementation date for NOx RACT.
17. Check the units used at the top of the table column for Emission Unit Type and Rated Heat Input Capacity. Should this not be mmBtu/hr?

Subpart G.: Glass Melting Furnaces

Section 217.204 Emission Limitations

18. As noted above, January 1, 2012, is currently an unacceptable implementation date for NO_x RACT.

Subpart H: Cement and Lime Kilns

Section 217.224 Emissions Limitations

19. As noted above, January 1, 2012, is currently an unacceptable implementation date for NO_x RACT.

Subpart I: Iron and Steel and Aluminum Manufacturing

Section 217.244 Emissions Limitations

20. As noted above, January 1, 2012, is currently an unacceptable implementation date for NO_x RACT.

Subpart M: Electrical Generating Units

Section 217.344 Emissions Limitations

21. As noted above, January 1, 2012, is currently an unacceptable implementation date for NO_x RACT.

Davis, Rory

From: Mullen, Kathleen <Mullen.Kathleen@epa.gov>
Sent: Wednesday, October 19, 2022 1:40 PM
To: Davis, Rory
Cc: D'Agostino, Kathleen; Arra, Sarah
Subject: [External] IL NOx RACT

Hi Rory,

I have compiled the comments we previously had on Illinois' NOx RACT regulations with some of our current suggested revisions after comparing Illinois NOx regulations to Ohio, Wisconsin, New York, and New Jersey NOx regulations. I'm hoping this will help you develop a SIP approvable NOx RACT plan for the moderate bump up. I may have additional comments once you know which rules you intend to submit and have a draft submittal to review.

Previous Comments

1. Section 217.386 Applicability

Section 217.386(b) exempts any unit that is or has been [emphasis added] used for a specified purpose (purposes specified in section 217.386(b)(1)-(5)) from the NOx RACT requirements. The term "has been" is confusing and conflicts with the intent of section 217.386(c), which requires an owner/operator to notify the Illinois Environmental Protection Agency (IEPA) when an exemption no longer applies to an exempted unit. The term "has been" should be removed from section 217.386(b), and it should be made clear that a unit that is no longer used for an exempted purpose is subject to NOx emission control requirements.

2. Emission Averaging Plans

Note that an emissions averaging plan, as provided for in section 217.390, is a type of Economic Incentive Program (EIP) covered by EPA's January 2001 "Improving Air Quality with Economic Incentive Programs" (EPA-452/R-01-001), which provides USEPA's requirements for emissions trading programs. As such, the emissions averaging plan requirements must meet certain EIP requirements. Two specific EIP shortfalls or problems noted in Illinois' emissions averaging plan requirements are the following:

- a. 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. Illinois' emissions averaging plan requirements do not provide for this environmental benefit.
- b. In section 16.3 of the appendices of the EIP guidelines, which addresses requirements for EIPs involving RACT sources, it is stated that the EIP for Volatile Organic Compound (VOC) or NOx sources controlled for purposes of attaining the ozone standard cannot allow averaging times longer than 30 days. It is noted that Illinois' NOx emissions averaging plan requirements would allow averaging of NOx emissions over an entire ozone season or an entire year, but place no requirements on emissions averaged over a 30 day period. The longer averaging periods also appear in the following sections of Illinois' NOx emission control rules:

217.156(b)
217.156(i)
217.158(e)
217.158(f)
217.164(a)
217.184
217.204
217.224
217.244(a)

217.244(b)
 217.342(a)
 217.344
 217.390
 217.396(c)(4)

3. Section 217.392 Compliance

Section 217.392(c) allows the owner/operator of an unit (reciprocating internal combustion engine or turbine) subject to the emission control requirements of section 217.388, which would, in part, cover sources subject to NOx RACT, if so approved, to use NOx allowances generated from a NOx emissions trading program to offset excess emissions. Section 217.392(c) places no geographical constraints on the location of the sources generating the offsetting NOx allowance. Therefore, a subject owner/operator could use a NOx allowance generated outside of the Chicago or Metro-East St. Louis ozone maintenance areas to offset excess NOx emissions from NOx RACT units within these ozone maintenance areas. We believe that this approach is unacceptable from a RACT standpoint.

Comments based on comparing IL NOx RACT to OH, WI, NY, and NJ NOx RACT regulations:

1. Industrial Boilers—I recommend that Illinois' boiler limits for all fuel types should apply to sources > 50 MMBtu/hr instead of only >100 MMBtu/hr. OH, WI, NY & NJ all have limits for units > 50 MMBtu/hr.
2. Combustion Turbines- IL's turbine limits are set up most similarly to Ohio's turbine limits in terms of categories and applicability. However, Ohio's limits for both gaseous and liquid fuel types are more stringent than Illinois's emission limits. IL should consider whether the Ohio limits represent RACT. Please see the table below for the comparison of IL and OH's turbine limits:

| | IL | | OH | |
|---------|-------|---------------|-------|---------------|
| | limit | applicability | limit | applicability |
| gaseous | 42 | ≥ 3.5 MW | 25 | > 3.5 MW |
| liquid | 96 | | 65 | > 3.5 MW |

3. Internal Combustion Engines: New York and New Jersey have lower limits for this category of 1.5 grams/bhp-hour and Illinois may want to consider the feasibility of these limits.
4. Reheat furnaces – Do IL's emission limits apply to reheat furnaces regardless of the heat input capacity? Also, a couple limits seem like outliers when comparing them to Ohio and Wisconsin's limits for the following reheat furnace categories: regenerative, recuperative (combination of natural gas and coke oven gas), annealing furnaces (regenerative and recuperative), and galvanizing furnaces (regenerative and recuperative). Do you have documentation for why these limits are higher than limits in other specific types of furnaces?

| IL | | OH | | WI | |
|------------|---------------|-------|---------------|-------|---------------|
| limit | applicability | limit | applicability | limit | applicability |
| 0.03-0.142 | ? | 0.09 | >50 MMBtu/hr | 0.08 | >75MMBtu/hr |

5. Process heaters –WI rules cover units with maximum design heat input of ≥ 50MMBtu/hr and IL should consider whether the process heater limits should also apply to sources between 50 and 100 MMBtu/hr.

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6. Exemptions: What is the reason for the exemption for units with PTE < 15 TPY or < 5 TPOS for various NO_x categories? Please provide a demonstration documenting why these exemptions are needed and why they represent RACT for the respective source categories.
7. Lime and Cement Kilns, Glass Furnaces, Nitric Acid Manufacturing: We haven't actually approved these categories as RACT for any Region 5 states. Can you provide a justification/demonstration for why the emission limits in these categories represent RACT?
8. Please be sure to submit your EGU rules in order to satisfy NO_x RACT. Note: You can't rely upon C5APR to address the NO_x RACT requirement for that category. I recommend that the applicability for this category for all fuel types is when a source is > 50 MMBtu/hr .

Thanks,

Katie

Davis, Rory

From: Mullen, Kathleen (she/her/hers) <Mullen.Kathleen@epa.gov>
Sent: Thursday, May 30, 2024 2:17 PM
To: Davis, Rory
Cc: D'Agostino, Kathleen
Subject: [External] RE: NOx RACT questions

Hi Rory,

See my responses below in red. Please let us know if you have any questions.

Thanks,

Katie

From: Davis, Rory <Rory.Davis@Illinois.gov>
Sent: Thursday, May 30, 2024 9:15 AM
To: Mullen, Kathleen (she/her/hers) <Mullen.Kathleen@epa.gov>
Subject: RE: NOx RACT questions

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Meant to attach these to save you some time if you wanted to take a look.

From: Davis, Rory
Sent: Thursday, May 30, 2024 9:14 AM
To: Mullen, Kathleen <Mullen.Kathleen@epa.gov>
Subject: NOx RACT questions

Hey Katie,

I was wondering if you had given any more thought to, or looked at the other state rules regarding the 10% reduction for averaging plans at a single source, if averaging plans are considered EIPs.

Ohio's 3745-110-01(l) does not have the reduction for their averaging plans. While it is true that Ohio does not include the 10% reduction in their averaging plans explicitly, Ohio's averaging plans must be submitted to and approved by EPA in Ohio's SIP under 3745-110-03(l)(2). This gives EPA the authority to ensure Ohio's emissions averaging plan comports with the EIP. When a nonattainment area doesn't have an approvable attainment demonstration, a 10% extra reduction in emissions is required by the EIP. See page 60 of the EIP: "If your trading or CAIF EIP covers a nonattainment area that is needing and lacking an approved attainment demonstration (NALD) then your EIP must meet the environmental benefit requirement by requiring a 10 % extra reduction in emissions." If you would prefer to adopt the Ohio approach of submitting averaging plans to the EPA in order to be approved into the SIP, that is acceptable. However, it would be more transparent to include the exact 10% additional reduction language in your rules for nonattainment areas lacking an approved attainment demo.

In Wisconsin's 428.25(1)(b) and (c), the reduction is only for multi-facility averaging in (c), but not in facility averaging in (b).

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We have communicated with Wisconsin that they will need to comport with the EIP by including a 10% environmental benefit in order for their NOx averaging program to be approvable as RACT.

The other topic we discussed that is still outstanding is the frequency of testing. Our management and stack testing experts believe that our current five year testing frequency is sufficient for NOx monitoring. Ohio's frequency is unspecified, and upon request. Michigan is at 5 years.

We checked in with EPA's enforcement section, and they recommend the following:

- Biannual testing requirement (meaning within 24 months of the previous passing test);
- Testing moves to every 5 years if:
 - The test results are less than 75% of the limit
 - The source certifies that it has conducted no previous test over the preceding 5-year period that exceeded 75% of the limit and it is aware of no other information generated over the previous 5 years that would indicate emissions are above 75% of the limit

Does this approach sound more achievable to you? We also recommend that Ohio and Michigan adopt these testing requirements. In Wisconsin's NOx RACT rules, performance testing is required every 2 years (NR 428.23(1)(b)(3)).

Other than those two items I think we are pretty close to having a final draft to submit to the Board, hopefully very soon. It is with our Governor's office now, so we await their go-ahead.

Thanks, as always, for your assistance on these issues. We would appreciate any thoughts you might have on the above.

Rory Davis

Regulatory Development Unit Manager

Air Quality Planning Section

Illinois Environmental Protection Agency – Bureau of Air

217-782-7397

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Davis, Rory

From: Mullen, Kathleen (she/her/hers) <Mullen.Kathleen@epa.gov>
Sent: Tuesday, August 27, 2024 3:41 PM
To: Davis, Rory; D'Agostino, Kathleen
Cc: Sottoriva, Kyle; Roccaforte, Gina; Vetterhoffer, Dana
Subject: [External] RE: Part 217

Hi Rory,

We have a couple initial thoughts but would like to discuss this with you in more detail after I get back from vacation (September 6th). I can set something up for the week after I get back. What is your availability on Wednesday September 11th and Thursday September 12th?

We think your NOx averaging and emission cap rules will still need to include the 10% environmental benefit to align with the EIP since Illinois doesn't have an approved attainment demonstration for the 2015 ozone standard. Also, we are concerned with including the highest production rate of each unit in the emission cap since we think that this could increase the emission limit unnecessarily. Finally, Wisconsin's NOx RACT rules were not SIP approved for the 2015 ozone standard. We have proposed approval to revisions to Wisconsin's NOx rules NR 400, 428, and 484 with changes that clarify and streamline Wisconsin's NOx regulatory requirements. This recent proposed approval is not approving Wisconsin's NOx rules as RACT. Without an approved attainment demonstration, Wisconsin will also need to comport with the EIP by including a 10% environmental benefit in order for their NOx averaging program to be approvable as RACT.

Thanks,

Katie

From: Davis, Rory <Rory.Davis@Illinois.gov>
Sent: Friday, August 23, 2024 3:27 PM
To: Mullen, Kathleen (she/her/hers) <Mullen.Kathleen@epa.gov>; D'Agostino, Kathleen <dagostino.kathleen@epa.gov>
Cc: Sottoriva, Kyle <Kyle.Sottoriva@Illinois.gov>; Roccaforte, Gina <Gina.Roccaforte@Illinois.gov>; Vetterhoffer, Dana <Dana.Vetterhoffer@Illinois.gov>
Subject: FW: Part 217

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Hey Katie and Kathleen,

We have been given some proposed language for averaging provisions that mirrors some federal requirements and Wisconsin's NO RACT language that involves an emissions cap. The language would be more stringent than either because it would be in 30-day blocks rather annual or ozone season compliance periods. It does not include a 10 percent benefit for being an EIP, as Wisconsin's also doesn't. Another benefit that Brad Sims pointed out with the proposed is that it simplifies turnaround periods when units may be down, and emission less than normal for the source, but could still pose problems for compliance that were previously covered by turnaround language that we removed for being SSM-ish. Wisconsin's language also calls for all units of "similar type" to be included in a cap plan regardless of capacity and applicability of RACT limits. So, that is a difference that we may need to discuss with them.

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In their email to me they also noted that Wisconsin's rules were SIP approved, but I don't know that to be the case. I know there was a proposed approval, but I did not find a final. So, we have some questions regarding when Wisconsin may need to submit any changes if R5 is thinking some of what is in their current rules is not approvable.

I don't know if we need to get too many people involved, maybe just Katie and I could have a quick call to figure a few things out, or based on what you see below, maybe we set something up with all included on this email to have a discussion.

Any thoughts on the proposed or how you might want to handle discussions would be appreciated.

Have a good weekend, all.

Rory

From: Sims, Brad

Sent: Wednesday, August 14, 2024 2:33 PM

To: Davis, Rory <Rory.Davis@Illinois.gov>

Cc: Cirbo, Terry J

Sottoriva, Kyle <Kyle.Sottoriva@Illinois.gov>

Subject: [External] Part 217

Rory:

As a follow-up to our discussion last week, we were to provide some proposed emission cap language for consideration. Below is a first attempt at more detailed rule language that incorporates this concept. The following are a few introductory notes on the proposal:

1. This is not envisioned as a single-company's provision and has been drafted for general use by facilities that use emission averaging. It is an alternative to the emission averaging approach in the Agency's current proposal and is not intended to eliminate the current emission averaging alternative.
2. Provides a fixed 30-day average target that covers all operating scenarios, including the turnaround operating scenario for which the current rule has provisions but which the Agency has proposed to remove (see 35 IAC 217.158(h) and (j)). The same emissions cap would apply for all 30-day operating periods, including turnaround scenarios.
3. The proposed language is based on mass emissions cap approaches used in 2023 Federal GNP rule (40 CFR 52.41) and WI NR 428.25(b) (SIP-approved RACT), neither of which includes the 10% environmental write-off for single facility averaging.
4. The emissions cap is based on historical 30-day performance of affected units. It uses each affected unit's historical performance (the highest 30-day unit production rate during a baseline period, proposed 2022 – 2024) and the unit's emission limit(s) (i.e., multiple limits for multiple fuels) to establish a mass cap (in pounds per day) that a participating group of emission units would need to meet on a 30-day rolling average.
 - a. The historical baseline period for establishing the emissions cap was specified as three recent years.
 - b. The units' emission limits used to establish the emissions cap are the new, more stringent standards in the Agency's 7/8/24 proposal.
 - c. The mass emissions cap is expressed in this proposal on a pounds/day basis (daily average based over 30 days of operation). It could alternatively be expressed as a 30-day mass emissions cap.

Proposed Part 217 Language

Subpart D NOx General Requirements

35 IAC 217.156 Recordkeeping and Reporting

- (i-5) On and after May 1, 2025, if demonstrating compliance through an emissions averaging plan, by March 1 following the previous calendar year, the owner 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 NOx emissions on a 30-day rolling average basis. For those units that elect to comply with a 30-day rolling average mass emission cap, the cap is the fixed, allowable NOx emissions.
 - 2) The total mass of actual NOx 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 NOx emissions is less than the total mass of allowable NOx emissions using equations in Section 217.158(f-5a) or (f-5b).
 - 4) The daily information required to determine the total mass of actual NOx emissions on a 30-day rolling average basis.

....

Section 217.158 Emissions Averaging Plans

(a)(1)(B-5) On and after May 1, 2025, units that are not otherwise subject to Subpart E, F, G, H, I, M, or Q, 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.

(b-5) On and after May 1, 2025, an owner or operator must submit an emissions averaging plan to the Agency at least 30 days before beginning the use of that plan to demonstrate compliance with an aggregate emission average or aggregate mass emissions cap. 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) Identification of either the 30-day rolling average emissions or 30-day rolling average mass emission cap, calculated in accordance with (f-5a) and (f-5b) of this section, respectively, that all affected units covered by the emissions averaging plan will be subject to. If elected, the 30-day rolling average mass emission cap is to be provided in mass per day in accordance with (f-5b).
- 4) The date the owner or operator will begin using the emissions averaging plan.
- 5) An owner or operator may amend an emissions averaging plan only once per calendar year.

...

(f-5a) (f-5) as in *Current Agency proposal*, except the "0.9" should not apply when all units in emission average are located at a single facility.

...

(f-5b) On and after May 1, 2025, the 30-day rolling daily average mass of actual NOx emissions from the units listed in the emissions averaging plan must be equal to or less than the daily average mass emission cap. The following equation must be used to establish the daily average mass emission cap:

$$\text{Mass cap} \left(\frac{\text{pounds}}{\text{day}} \right) = \sum_{u=1}^n \sum_{f=1}^d EL_{uf} \times R_{uf}$$

Where:

EL_{uf} = the emissions limit (lb/mmBtu) for each affected unit and fuel type, as provided in Sections 217.164, 217.184, 217.294, 217.204, 217.244, and 217.344 of this Part, as applicable.

R_{uf} = the average daily production rate for unit u and fuel f (e.g., heat input in mmBtu/day) based on the highest consecutive 30-day period during the years 2022 to 2024.

n = the number of emissions units participating in averaging

d = the number of fuels for unit

(g) An owner or operator of an emission unit subject to Subpart Q of this Part that is located in either one of the areas set forth under Section 217.150(a)(1)(A)(i) or (ii) or Section 217.150(a)(2)(A)(i) or (ii) that is complying through an emissions averaging plan under this Section must comply with the applicable provisions for determining actual and allowable emissions under Section 217.390, the testing and monitoring requirements under Section 217.394, and the recordkeeping and reporting requirements under Section 217.396. On and after May 1, 2025, those complying by a mass emission cap under 217.158(f-5b), the following equation must be used to establish the emissions limit, EL_{uf} :

$$EL_{uf} = \frac{\sum_{j=1}^m Cd(all(j)) \times Fd \times \left(\frac{20.9}{20.9 - \%O2d(j)} \right)}{m}$$

Where:

EL_{uf} = the emissions limit (lbs/mmBtu) for each affected unit and fuel type, as provided in Section 217.388 of this Part, as applicable.

"Cd(all)", "Fd", "%O2d(j)", "j", and "m" are all defined in *Current Agency proposal at 217.388(g-10)(Eqn 2)*.

We would be happy to discuss in more detail at your convenience. Thank you for your time and consideration.

Best regards,

W. Brad Sims

ERS Advisor / Principal for Air Quality
Global Operations & Sustainability

Exxon Mobil Corporation

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CERTIFICATE OF SERVICE

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

I have electronically served the attached ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S RESPONSES TO IERG'S PRE-FILED QUESTIONS FOR ILLINOIS EPA WITNESS AT SECOND HEARING upon the persons on the attached Service List.

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

The number of pages in the e-mail transmission is 31.

The e-mail transmission took place before 10:00 a.m. on November 20, 2024.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

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

Dated: November 20, 2024

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