

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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

NOTICE

TO: Don Brown
Clerk
Illinois Pollution Control Board
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Chicago, IL 60605
don.brown@illinois.gov

ATTACHED SERVICE LIST

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

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

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

DATED: October 31, 2024

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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

**SECOND POST-HEARING COMMENTS OF THE
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**

NOW COMES the Illinois Environmental Protection Agency ("Illinois EPA" or "Agency"), by its attorney, and respectfully submits additional post-hearing comments and additional suggested revisions to the rulemaking proposal in the above rulemaking proceeding.

As the Agency explained at the September 26, 2024, hearing and in its Post-Hearing Comments filed with the Illinois Pollution Control Board ("Board") on October 17, 2024, the Agency has engaged in negotiations with interested parties on several issues. Accordingly, the Agency proposes additional revisions to the rulemaking proposal. The Agency has had discussions with the United States Environmental Protection Agency ("USEPA") and continues to discuss the proposed revisions, below, with USEPA. While the Agency anticipates that the proposed revisions are approvable, it will keep the Board apprised of any anticipated issues regarding USEPA approval at hearing or in further post-hearing comments. As to the following proposed amendments, below, the Agency's proposed revisions are based on the rulemaking proposal as published in the Illinois Register, 48 Ill. Reg. 11469 (August 9, 2024).

Additional amendatory provisions address requests by sources for an extension of the compliance date for newly applicable emission units that first become subject to the proposed rulemaking on and after May 1, 2025. In addition, a new appendix is being proposed that sets forth the applicable compliance date for certain emission units located at petroleum refineries. One of the emission units, a steam methane reformer ("SMR"), was previously thought to not be a process heater, as that term is defined in Section 211.5195, *see* R08-19, *Post-Hearing*

Comments of the Illinois Environmental Protection Agency, PC#11 at 22 (March 23, 2009); however, the Agency and the source are now in agreement that the SMR is a process heater under Parts 211 and 217. An extension of the compliance date is also being proposed to provide that notwithstanding the compliance date set forth in the proposed rule, the owner or operator of a turbine subject to Subpart Q 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.

For these newly subject emission units, the owners or operators also informed the Agency that they are evaluating the units regarding modification for compliance purposes and require additional time to address all phases that are involved with an extensive capital project, including but not limited to extensive engineering, budgeting requiring management approval, permitting, equipment delivery, construction, commissioning, and emissions testing, all of which involve extensive costs. In fact, in the *Federal “Good Neighbor Plan” for the 2015 Ozone National Ambient Air Quality Standards* (“Good Neighbor Plan”), 88 Fed. Reg. 36654 (June 5, 2023), the United States Environmental Protection Agency (“USEPA”) indicated that it initiated a study to examine the time necessary to install the potential controls identified in the Good Neighbor Plan’s cost analysis for all of the non-electrical generating unit (“EGU”) industries subject to the Good Neighbor Plan, and the resulting report identified a range of estimated installation times with minimum estimated installation times ranging from 6-27 months without any supply chain delays and 6-40 months with potential supply chain delays depending on the industry. *Id.* at 36758-36759. The report also identified maximum estimated installation times ranging from 12-28 months without any supply chain delays and 12-72 months with potential supply chain delays depending on the industry. *Id.* at 36759. The report also indicated that permitting processes may

take 6 to 12 months but noted that these processes typically can proceed concurrent with other steps of the installation process. *Id.* Based on all these considerations, the USEPA concluded 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 in the 20 states that remain linked to downwind nonattainment or maintenance in 2026. *Id.* Such time frames appear similarly analogous in the context of this proposed rulemaking.

Furthermore, the maintenance turnaround provisions are being amended by providing a daily emissions cap for refineries demonstrating compliance through an emissions averaging plan during periods of maintenance turnaround, which are infrequent and where emissions are lower compared to normal operations, provided that certain requirements are met. 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. In addition, 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 incorporating the operating days preceding the maintenance turnaround. For these purposes, “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. Furthermore, in the context of emissions averaging plans under Section 217.158, as to the owner or operator of a petroleum refinery located in Channahon, provisions are being added that provide for a modified equation

to determine compliance before January 1, 2028. On and after January 1, 2028, the equation under subsection (h) applies to such refineries.

A provision is also being proposed to provide that 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 under Subpart Q. These turbines are subject to certain provisions of the Climate and Equitable Jobs Act (“CEJA”), 415 ILCS 5/9.15, and as such, 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. Therefore, these units are being excluded from the “once in, always in” provision under Subpart Q because they are subject to emission limits under CEJA that are below the applicability threshold in the proposed rule and will be permitted appropriately by the Agency.

The Agency is now proposing to amend the rulemaking proposal as set forth herein. Accordingly, the Agency recommends the acceptance by the Board of the following amendments to the rulemaking proposal:

Amend the Part 217 Table of Contents to add new Appendix I as follows:

217.APPENDIX I Compliance Dates for Certain Emission Units at Petroleum Refineries

Amend Section 217.152 by adding a new subsection (e) as follows:

- 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.

Amend Section 217.152 by adding new subsection (f) as follows:

- 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.

Amend Section 217.158(j) to read as follows:

- j) ~~Until May 1, 2025, the~~ The owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance (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); and
 - 4) NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround; and
 - 5) the owner or operator notifies the Agency in writing within 30 days of the end of the maintenance turnaround of the actual start and end dates for the maintenance turnaround and, for each day of the maintenance turnaround, the daily emissions of the combined emission units in the emissions averaging plan.

The owner or operator must resume compliance with the 30-day rolling average on the calendar day immediately following the end of the maintenance turnaround and incorporating the operating days preceding the maintenance turnaround. For

purposes of this subsection, “maintenance turnaround” means the shutdown of any emission unit or control equipment that is scheduled at least 30 days in advance of the shutdown and the purpose of such shutdown is to (1) perform general equipment cleaning and repairs due to normal equipment wear and tear; (2) perform required equipment tests and internal inspections; (3) install any unit or equipment modifications/additions, or make provisions for a future modification or addition; and/or (4) perform normal end-of-run catalyst changeouts or refurbishments.

Amend Section 217.158(l) to read as follows:

lj) Until May 1, 2025, the The owner or operator of an emission unit located at a petroleum refinery who is demonstrating compliance with an applicable Subpart through an emissions averaging plan under this Section may exclude from the calculation demonstrating compliance (i.e., 30-day rolling average under Section 217.152) those time periods when NO_x pollution control equipment that controls one or more emission units included in the emissions averaging plan is shut down for a maintenance turnaround, provided that the requirements in subsection (l)(1) through (l)(5) are met:

- 1) the~~such~~ 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); and
- 4) except for those emission units vented to the NO_x pollution control equipment undergoing the maintenance turnaround, NO_x pollution control equipment, if any, continues to operate on all other emission units operating during the maintenance turnaround; and
- 5) the owner or operator notifies the Agency in writing within 30 days of the end of the maintenance turnaround of the actual start and end dates for the maintenance turnaround and, for each day of the maintenance turnaround, the daily emissions of the combined emission units in the emissions averaging plan.

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.

Amend Section 217.158 by adding subsection (m) as follows:

- m) Notwithstanding subsection (h), for the owner or operator of a petroleum refinery located in Channahon, 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).

Amend Section 217.386 by adding a new subsection (f) as follows:

- 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).

Amend Section 217.388 by amending subsection(a)(1)(D), (E), and (F) to read as follows:

- D) i) Before May 1, 2025, 660 ppmv (corrected to 15 percent O2 on a dry basis) for diesel engines;
- ii) On and after May 1, 2025, 210 ppmv (corrected to 15 percent O2 on a dry basis) for diesel engines that are constructed on and after May 1, 2025;
- E) i) Before May 1, 2025, 42 ppmv (corrected to 15 percent O2 on a dry basis) for gaseous fuel-fired turbines;
- ii) On and after May 1, 2025, 25 ppmv (corrected to 15 percent O2 on a dry basis) for gaseous fuel-fired turbines;
- F) i) Before May 1, 2025, 96 ppmv (corrected to 15 percent O2 on a dry basis) for liquid fuel-fired turbines; and

- ii) On and after May 1, 2025, 65 ppmv (corrected to 15 percent O₂ on a dry basis) for liquid fuel-fired turbines.

Amend Section 217.392 by adding a new subsection (e) to read as follows:

- 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.

Add 217.APPENDIX I as follows:

Section 217.APPENDIX I: Compliance Dates for Certain Emission Units at Petroleum Refineries

Phillips 66 Company (Facility ID 119090AAA)

<u>Point</u>	<u>Emission Unit Description</u>	<u>Compliance Date</u>
<u>0036</u>	<u>CAU Heater</u>	<u>December 31, 2025</u>
<u>0010</u>	<u>HTR-SMR Steam Methane Reformer</u>	<u>December 31, 2026</u>
<u>0033</u>	<u>RAU Heater</u>	<u>December 31, 2027</u>
<u>0085</u>	<u>HDU-1 Heater</u>	<u>December 31, 2027</u>
<u>0088</u>	<u>HDU-2 Heater</u>	<u>December 31, 2028</u>

CITGO Petroleum Corporation (Facility ID 197010AAI)

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

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

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

DATED: October 31, 2024

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CERTIFICATE OF SERVICE

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

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

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

The number of pages in the e-mail transmission is 12.

The e-mail transmission took place before 5:00 p.m. on October 31, 2024.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY,

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

Dated: October 31, 2024

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