

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
60 E. Van Buren St., Suite 630
Chicago, IL 60605
don.brown@illinois.gov

ATTACHED SERVICE LIST

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

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

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

DATED: December 19, 2024

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

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**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S
RESPONSE TO POST-HEARING COMMENTS**

NOW COMES the Illinois Environmental Protection Agency (“Illinois EPA” or “Agency”), by its attorney, and respectfully submits its response in the above rulemaking proceeding regarding Equistar Chemicals, LP’s (“Equistar”) Post-Hearing Comments, filed with the Illinois Pollution Control Board (“Board”) on December 12, 2024, and Phillips 66 Company’s Post-Hearing Comments and the Illinois Environmental Regulatory Group’s (“IERG”) Post-Hearing Comments, both of which were filed with the Board on December 16, 2024. *See, Equistar Chemicals Post-Hearing Comments submitted by Ross Hubbard, Senior Environmental Engineer, LyondellBasell, P.C. #4, Phillips 66 Company’s Post-Hearing Comments, P.C. #5, and Illinois Environmental Regulatory Group’s Post-Hearing Comments, P.C. #6.*

As an initial matter, on December 17, 2024, the United States Environmental Protection Agency (“USEPA”) published its *Findings of Failure To Attain and Reclassification of Areas in Illinois, Indiana, Michigan, Ohio, and Wisconsin as Serious for the 2015 Ozone National Ambient Air Quality Standards* (“Findings of Failure to Attain and Reclassification as Serious”), 89 Fed. Reg. 101901, whereby certain areas failed to attain the 2015 ozone National Ambient Air Quality Standard (“NAAQS”) and will be reclassified by operation of law to “Serious” nonattainment for the 2015 ozone NAAQS effective January 16, 2025. USEPA found that eight Moderate areas, including the Chicago, IL-IN-WI and St. Louis, MO-IL areas, did not attain by their attainment dates, because their 2021-2023 design values are greater than 0.070 parts per

million. *Id.* at 101902. The reclassified areas are subject to the Serious area requirement to attain the 2015 ozone NAAQS as expeditiously as practicable, but no later than August 3, 2027. *Id.* Such action by USEPA confirms that the applicability thresholds proposed by Illinois EPA are needed. It does not otherwise impact the reasonably available control technology (“RACT”) requirements at issue here, though, as RACT is the same for Moderate and Serious NAAs, except for the applicability threshold.

As to the post-hearing comments, while the Agency has not had time to fully assess Equistar’s requested proposed revision to the rulemaking proposal, if the Board decides to adopt Equistar’s proposed revision, the Agency suggests additional provisions to accompany Equistar’s proposed revision in order to lay the foundation for Equistar’s proposed table for inclusion under Appendix I. Such additional provisions are set forth below.

As to Phillips 66 Company’s request that the compliance date for the HDU-2 Heater be revised from December 31, 2027, to December 31, 2028, the Agency opposes such an extension. As the Agency stated in its Second Post-Hearing Comments, USEPA concluded 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. *Second Post-Hearing Comments of the Illinois EPA*, P.C. #2, at 2-3 (referencing USEPA’s study to examine the time necessary to install potential controls identified in the cost analysis for all the non-electrical generating unit industries subject to the Good Neighbor Plan). Phillips 66 Company asks for additional time beyond the three-year time frame but has compliance flexibilities available to it such as the use of an emissions averaging plan and the opportunity to install additional controls on other emission units.

Both Phillips 66 Company and IERG oppose the 10% environmental benefit required under the emissions averaging provisions. The Agency explained the necessity of the

environmental benefit provision in detail in its Post-Hearing Comments filed December 16, 2024. *Post-Hearing Comments of the Illinois EPA*, P.C. #7, at 1-5. Despite the opposition, as the Agency described, USEPA will not approve a State Implementation Plan (“SIP”) submittal by the Agency without the 10% environmental benefit. *Id.* The Agency’s proposed revision that includes a modified equation to determine compliance before January 1, 2028, allows Phillips 66 Company to avail itself of an extension of the environmental benefit requirement until January 1, 2028. *Third Post-Hearing Comments of the Illinois EPA*, P.C. #3, at 4 and 8.

Regarding IERG’s asserted lack of emission inventory analysis or attainment modeling, the Agency, or more specifically the Lake Michigan Air Directors Consortium on behalf of the Agency, conducted modeling for Moderate nonattainment for each nonattainment area (“NAA”) with a projected year of 2023. *Ramboll White Paper: NOx Emission Controls for Stationary Sources in the LADCO Region*, Ramboll US Consulting, Inc. (February 2022), https://www.ladco.org/wp-content/uploads/Projects/Emissions-Controls/Ramboll-Stationary-NOx-2021/Final_LADCO_WhitePaper_25Feb2022.pdf. This modeling is not directly relevant to this rulemaking proceeding but it was cited in the Agency’s initial filing, *see, Technical Support Document for Proposed Rule Revisions for Part 217*, AQPSTR 24-02, June 2024, along with its uniform resource locator, as set forth above. It has been available for some time, and it was publicly noticed with the Agency’s Attainment Demonstrations for the 2015 Ozone National Ambient Air Quality Standard for the Chicago Nonattainment Area and Metro-East Nonattainment Area in November. <https://epa.illinois.gov/public-notice/general-notice.html>. As stated at hearing, this modeling was conducted prior to the Agency drafting and proposing the NOx RACT revisions and so did not include potential emission reductions that may result from the currently proposed revisions. Transcript of November 21, 2024, Hearing, at 7-10. It did

include on-the-books standards and emissions associated with the current Part 217 rules, as required.

It is now obvious that current Part 217 regulations in conjunction with other regulatory pathways for the control of ozone precursors were not sufficient to attain the NAAQS while the NAAs were classified as Moderate, as both areas have failed to attain the NAAQS and have been reclassified as Serious as of December 17, 2024, and effective January 16, 2025. 89 Fed. 101901. The Agency has not claimed that additional emissions reductions from stationary sources, even if the proposed revisions are adopted, will be sufficient to attain the standard on their own, nor has it conducted modeling to show that the proposed revisions will be sufficient to attain the NAAQS. The Agency has made clear that, in fact, additional reductions will be necessary to attain the NAAQS.

The regulatory purpose for adopting RACT standards is to provide such reductions toward attainment *based on the level of control technology that is technically and economically feasible at the time of RACT adoption*. See, 44 Fed. Reg. 53762 (defining RACT as “[t]he 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 basic element of RACT standards is that they are *technology based* and therefore require no form of “robust emission inventory analysis or attainment modeling” in determining what constitutes RACT, contrary to IERG’s comments. *Illinois Environmental Regulatory Group’s Post-Hearing Comments*, P.C. #6, at 3. While IERG states that “[e]mission impacts are an essential input to the photochemical grid modeling that is the heart of the attainment demonstration,” it is not the purpose of this rulemaking proceeding to make an attainment demonstration. *Id.* at 4. Rather, the purpose of this proceeding is to adopt RACT standards to address already demonstrated nonattainment, as is required by the Clean Air Act. The emissions

that were expected in 2023 were the emissions included in the recently submitted attainment demonstration for moderate nonattainment. The emissions impacts that will occur from the proposed RACT standards will be included in future attainment modeling and could have been included in the recently submitted attainment demonstration had the proposed revisions been adopted much earlier, however the modeling still would not have been conducted in either case in order to determine what constitutes RACT for a given affected unit type or affected source.

In proposing RACT standards, the Agency sought to ensure that the standards to be adopted by the Board constitute technically and economically feasible revisions. IERG and other interested parties have had many opportunities to “review and discuss technical analysis and justifications produced by the Agency,” via participating in rulemaking hearings including asking questions of Agency witnesses and providing witness testimony of their own if they chose, filing comments with the Board, and reaching out to the Agency to discuss the proposal. *Id.* at 5. Several impacted facilities indeed commented on the technical and economic feasibility of the proposed RACT standards to the Agency in seeking amendments to the rule proposal. In response to these discussions, the Agency has submitted several rounds of post-hearing comments recommending amendments to its proposal.

The proposed revisions have been drafted in order to meet the NO_x RACT requirements for Moderate NAAs, and in terms of applicability thresholds, for Serious NAAs, for both areas. The Agency has been in regular communication with USEPA to determine what will be approvable as RACT in a SIP submission. While some rulemaking participants have pointed out that there are no specific Clean Air Act requirements for specific aspects of the proposed revisions, that argument is irrelevant to what is considered RACT at the time of the Agency’s rulemaking proposal. For instance, there is no express requirement that the emission standard for gas-fired turbines be reduced from 42 ppmv to 25 ppmv - the Agency proposed the standard

because that is currently considered RACT for the unit type based on review of technical literature and other states' RACT standards. There are numerous aspects of the proposed revisions that were proposed for that same reason. The Agency has also been very engaged with affected sources and USEPA to provide as much compliance flexibility to affected sources as possible while still being able to submit approvable revisions, along with the current Part 217 rules, to USEPA that represent the current understanding of RACT for moderate and serious NAAs.

As to IERG's request that the Agency propose amendments to Subpart U of Part 217, the Agency will take this under advisement for a future rulemaking. In the meantime, IERG has the option of filing its own rulemaking proposal.

In addition, certain sources may have emission units newly subject to Subpart Q on and after May 1, 2025, and accordingly, such units will need to have performance testing conducted to demonstrate compliance. Therefore, the Agency is suggesting a proposed revision to Section 217.392(c) to accommodate such units and make this provision consistent with the provision under Subpart D.

As to the following proposed amendments, the Agency's proposed revisions are based on the rulemaking proposal as published in the Illinois Register, 48 Ill. Reg. 11469 (August 9, 2024). 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:

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

Amend Section 217.152 by adding new subsection (g) to read as follows:

- 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.**

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

- c) On and after May 1, 2025, an owner or operator of a stationary internal combustion engine or turbine subject to this Subpart Q must not operate the affected engine or turbine unless the requirements of this Subpart Q are met. Compliance must be demonstrated with the applicable emissions concentration or emissions averaging plan on a 30-day rolling average basis. A 30-day rolling average consists of 30 operating days where an operating day is a calendar day in which any subject emission unit combusts any fuel. Compliance with the 30-day rolling average ~~for units that have conducted an initial performance test under Section 217.394(a) or installed and operated a CEMS under Section 217.394(e)~~ shall be demonstrated 30 operating days after May 1, 2025. A 30-day rolling average is calculated using the total mass of emissions from the period and the total volume of products of combustion in the period. If an affected engine or turbine does not operate 30 operating days in a calendar year, the owner or operator of the unit must demonstrate compliance on an annual calendar year basis until 30 operating days are accumulated on and after May 1, 2025.**

Add 217.APPENDIX I as follows:

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

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, 2027</u> |

CITGO Petroleum Corporation (Facility ID 197010AAI)

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

Equistar Chemicals LP (Facility ID 063800AAC)

| <u>Point</u> | <u>Emission Unit Description</u> | <u>Compliance Date</u> |
|----------------|----------------------------------|--------------------------|
| <u>0025</u> | <u>Steam Superheater</u> | <u>December 31, 2027</u> |
| <u>0026(a)</u> | <u>Cracking Furnaces 101/102</u> | <u>May 1, 2026</u> |
| <u>0026(a)</u> | <u>Cracking Furnaces 105/106</u> | <u>May 1, 2026</u> |
| <u>0026(a)</u> | <u>Cracking Furnaces 107/108</u> | <u>May 1, 2026</u> |
| <u>0026(a)</u> | <u>Cracking Furnace 113</u> | <u>May 1, 2026</u> |

In conclusion, the Agency recommends that the Board expeditiously adopt this rulemaking proposal. As a reminder, the Agency is required to make a complete SIP submission to USEPA by May 19, 2025.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

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

DATED: December 19, 2024

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

CERTIFICATE OF SERVICE

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

I have electronically served the attached ILLINOIS ENVIRONMENTAL PROTECTION AGENCY'S RESPONSE TO POST-HEARING COMMENTS 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 4:30 p.m. on December 19, 2024.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY,

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

Dated: December 19, 2024

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

SERVICE LIST

Daniel Pauley
Hearing Officer
Illinois Pollution Control Board
60 E. Van Buren St., Ste. 630
Chicago, IL 60605
daniel.pauley@illinois.gov

Renee Snow
Office of General Counsel
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702-1271
renee.snow@illinois.gov

Jason E. James
Assistant Attorney General
Office of the Illinois Attorney General
Environmental Bureau
201 West Point Drive, Suite 7
Belleville, IL 62226
jason.james@ilag.gov

Caitlin Kelly
Assistant Attorney General
Office of the Illinois Attorney General
Environmental Bureau
69 W. Washington Street, 18th Floor
Chicago, IL 60602
caitlin.kelly@ilag.gov

Rachel Medina
Assistant Attorney General
Office of the Illinois Attorney General
Environmental Bureau
500 South Second Street
Springfield, IL 62701
rachel.medina@ilag.gov

Mallory Meade
Assistant Attorney General
Office of the Illinois Attorney General
Environmental Bureau
500 South Second Street
Springfield, IL 62701
mallory.meade@ilag.gov

Melissa S. Brown
HeplerBroom, LLC
4340 Acer Grove Dr.
Springfield, IL 62711
melissa.brown@heplerbroom.com

Trejahn Hunter
Illinois Environmental Regulatory Group
215 E. Adams St.
Springfield, IL 62701
thunter@ierg.org