TITLE 326 AIR POLLUTION CONTROL DIVISION

LSA Document #25-204

SUMMARY/RESPONSE TO COMMENTS FROM THE CONTINUATION OF THE SECOND COMMENT PERIOD

The Indiana Department of Environmental Management (IDEM) requested public comment on September 10, 2025, through October 10, 2025, on IDEM's draft rule language. No comments were received.

SUMMARY/RESPONSE TO COMMENTS FROM THE SECOND COMMENT PERIOD

The Indiana Department of Environmental Management (IDEM) requested public comment from July 30, 2025 through August 29, 2025, on IDEM's draft rule language. IDEM received comments from the following parties:

Environmental Organizations (EO):
- Just Transition Northwest Indiana
- Indiana Conservation Voters
- Citizens Action Coalition
- Sierra Club Hoosier Chapter
- Conservation Law Center
- Environmental Law & Policy Center
- Industrious Labs

Comment: IDEM responds to oral comments made at then public hearing regarding consideration of less-polluting technologies, but this response does not address all the information provided in the prior written comments.

Response: IDEM appreciates the commenters' interest in this rulemaking and thanks them for notifying the agency of this omission. To address the commenters' concern, the agency published a Continuation of Second Notice at 20250910-IR-326250204SCA. This document includes written responses to the written comments made during the First Comment Period.

Comment: IDEM's proposed NOx RACT rules do not require any additional controls to address NOx emissions for most air pollution sources in Lake and Porter Counties and thus fail to reduce ozone pollution and will not bring the area into expeditious attainment with ozone NAAQS, as required by the Clean Air Act.

Response: IDEM appreciates and shares the commenters' desire to reduce ozone pollution in Lake and Porter Counties. However, the commenters' suggestion that the proposed rulemaking will not require any additional controls is inaccurate. Indeed, it is anticipated that the proposed rulemaking will result in an investment of roughly $6.25 million across multiple sources to reduce NOx emissions.

Further, the commenter mentions that the additional controls do not address NOx emissions for most air pollution sources in Lake and Porter Counties. The rule is only applicable to sources located in Calumet, Hobart, North, Ross, and St. John Townships in Lake County and

Center, Jackson, Liberty, Pine, Portage, Union, Washington, and Westchester Townships in Porter County that have the potential to emit over 100 tons per year. IDEM worked with affected sources to determine which NOx reducing emissions technologies were *reasonably available* for each affected emission unit. IDEM is not required to implement the most stringent NOx reducing technologies.

Comment: IDEM has failed to provide adequate public notice and a meaningful opportunity to review and comment on these proposed NOx RACT SIP rules because the Department has failed to provide any specific analysis supporting the selection of NOx RACT controls for the specific sources in the Indiana ozone nonattainment area or otherwise provided the information necessary to determine whether the control requirements included in the proposed rules qualify as RACT for these sources, as required under EPA's ozone SIP rules and accompanying guidance.

Response: IDEM appreciates the commenters' request for the agency's analysis. Commenters may review IDEM's technical support documents (TSD) for its State Implementation Plan (SIP) submission related to this rulemaking. The RACT studies and technical support documents are used to evaluate sources and develop proposed unit-specific emission limits and/or controls for NOx RACT. The final technical support documents must be included with Indiana's SIP submission to U.S. EPA after the conclusion of this rulemaking. These documents will provide U.S. EPA with technical information demonstrating that the final rule meets the requirements of the NOx SIP call, 88 FR 71757. Because the TSD cannot be finalized until the proposed limits become permanently enforceable, the documents are not typically made available during the underlying rulemaking process. While these technical support documents are not required to be published in conjunction with this rulemaking, IDEM has made them available for review on its website at https://www.in.gov/idem/sips/infrastructure-state-implementation-plans/.

Comment: IDEM's RACT analysis must consider less-polluting RACT technologies. Technologies suggested by the commenters include low-NOx burners, selective catalytic reduction, electric arc furnace, and direct reduced iron. Processes that lower NOx emissions have long been defined as RACT – and, in fact, are included in IDEM's current proposal – and thus the technologies raised by Commenters must be considered and either accepted or rejected within the framework of an overall RACT analysis

Response: IDEM appreciates commenters' requests to require the installation of the specified technologies to sources in Lake and Porter Counties. However, as demonstrated in the TSD and as previously mentioned, affected sources utilized the top-down approach in their RACT studies to determine the feasibility of control technology where the most stringent control available for a similar or identical source or source category is identified. The most stringent control option is then used to establish the RACT emission limitation, unless the applicant can demonstrate (and IDEM agrees) that it is not "achievable" due to technical infeasibility or not being cost effective. If the top control alternative is eliminated, then the next most stringent level of control is evaluated. This process continues until RACT is selected. IDEM reviewed the NOx RACT studies submitted by affected sources in other states as part of its due diligence review and found that the top-down approach was used to determine RACT in all of the studies reviewed.

Comment: IDEM must add the NOx requirements for the ladle preheaters back into these rules or explain why the failure to control NOx emissions from these units still represents RACT at the Indiana Harbor East, Indiana Harbor West, and Burns Harbor facilities.

Response: IDEM appreciates the commenters' concerns. IDEM removed the requirements for ladle preheaters for one source—Cleveland Cliffs. IDEM made the change for two reasons: (1) the agency realized that it did not impose the same requirement on U.S. Steel, a similar source to Cleveland Cliffs, and consequently removed the requirement for Cleveland Cliffs to maintain fairness and consistency; and (2) the unit is still subject to the presumptive limit of 0.09 lb NOx/mmBtu presumptive limit contained in 326 IAC 10-7-4(e) of the proposed rule.

SUMMARY/RESPONSE TO COMMENTS FROM THE FIRST PUBLIC HEARING

IDEM received comments from the public during the preliminary adoption hearing on June 11, 2025, from the following parties:

Allen Halline, Just Transition Northwest Indiana, Gary Advocates for Responsible Development, (AH)
Mike Oles, Mighty Earth, (MO)
Susan Thomas, Just Transition Northwest Indiana, (STh)
Wanda Torres, (WT)
Hilary Lewis, Industrious Labs, (HL)
Terry Steagall, (TS)
Susie Talevski, (STa)
Connie Wachala, (CW)

The comments received at the public hearing and IDEM's responses to the comments are summarized as follows:

Comment: IDEM must amend the NOx RACT draft rule to implement a less-polluting steel manufacturing process by using direct reduced iron-electric arc furnaces (DRI-EAF) and green hydrogen produced from renewable energy sources. (AH, MO, STh, WT, HL, TS, STa, CW)

Response: IDEM appreciates the commenters' concerns regarding the regulation of steel manufacturing sources in Indiana. The proposed rule is designed to provide an enforceable mechanism that satisfies U.S. EPA's state implementation plan (SIP) requirements for NOx RACT in Lake and Porter counties. NOx RACT requirements are described by U.S. EPA in the "NOx Supplement" notice titled, "State Implementation Plans; Nitrogen Oxides Supplement to the General Preamble; Clean Air Act Amendments of 1990 Implementation of Title I; Proposed Rule," published November 25, 1992 (57 FR 55620). In the NOx Supplement notice EPA defines RACT as the lowest emission limitation that a particular facility is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility. RACT is based on controlling emissions from existing emissions units, not requiring facilities to deploy entirely different manufacturing processes. Ultimately, requests for

the regulated sources to change to different steel manufacturing processes are beyond the scope of this rulemaking action.

Comment: IDEM has an opportunity to clean up the steelmaking industry in Northwest Indiana to not only keep it in compliance with existing laws, but to protect public health and the environment and to improve the economy. (AH, MO, STh, WT, HL, TS, STa, CW)

Response: The proposed NOx RACT rulemaking will impose source-specific requirements and presumptive NOx RACT requirements that are applicable to all major stationary sources of NOx in the specified nonattainment area, thereby complying with federal requirements and protecting public health and the environment.

Comment: IDEM has a legal responsibility to consider cleaner proven technologies, and that includes green hydrogen and DRI-EAF. (MO)

Response: The purpose of this proposed rulemaking is to legally comply with the CAA SIP revision requirements for major stationary sources of NOx in Lake and Porter counties by the federally imposed deadline (88 FR 71757). The analysis and determination of RACT focuses on controlling emissions from existing units rather than requiring the conversion to an entirely different manufacturing process. IDEM, in conjunction with the regulated sources, followed the applicable process to determine RACT that complies with Indiana's obligations under the CAA.

Comment: IDEM's next public hearing for the NOx RACT draft rule should be held in Northwest Indiana where this issue is impacting the citizens. (STh, STa)

Response: The Environmental Rules Board holds its meetings at the State Government Center for the convenience and travel considerations of the board members and members of the public and other interested parties from across the entire state. IDEM appreciates this rulemaking action is of particular interest to residents of Lake and Porter Counties and will strive to improve its remote participation capability at future meetings. Additionally, IDEM is holding an additional written comment period on the draft rule and encourages any interested individuals to submit written comments at that time.

Comment: IDEM must include green hydrogen through DRI-EAF in its NOx RACT analysis to comply with its ozone SIP and regional haze obligations. (STa)

Response: As discussed in response to related comments, the consideration of including DRI-EAF technology in the proposed NOx RACT rule language is outside the scope and stated purpose of this rulemaking. This rule is intended to comply with U.S. EPA's SIP revision requirements to impose NOx RACT limits for all major stationary sources of NOx in the designated nonattainment area.

SUMMARY/RESPONSE TO COMMENTS FROM THE FIRST COMMENT PERIOD

The Indiana Department of Environmental Management (IDEM) requested public comment from April 9, 2025 through May 9, 2025, on IDEM's draft rule language. IDEM received comments from the following parties:

SunCoke Energy ("SunCoke")
Environmental Organizations ("EO"):

Just Transition Northwest Indiana
Indiana Conservation Voters
Gary Advocates for Responsible Development
Citizens Action Coalition
Sierra Club
Conservation Law Center
Environmental Law & Policy Center
Industrious Labs
Mighty Earth
U.S. Steel ("USS")
Conservation Law Center ("CLC")

Following is a summary of the comments received and IDEM's responses thereto.

Comment: SunCoke commented that the final text for IHCC NOx RACT requirements as proposed in 326 IAC 10-7-8(g) of the Proposed Rule may result in confusion. More specifically, 326 IAC 10-7-8(g)(1)(A) states that the coke oven batteries shall "operate only as heat-recovery coke oven battery using staged combustion". SunCoke is concerned that the language proposed in 326 IAC 10-7-8(g)(1)(A) could be misconstrued to mean that IHCC's heat-recovery coke oven batteries require some sort of add-on burner or combustion device that uses staged-combustion. SunCoke explained that the intent of this regulation is to ensure that IHCC maintains the staged combustion design inherent to its coke ovens, which IHCC fully supports.

IHCC recommends the following simple change to the Proposed Rule to clarify its intent:

(g) Indiana Harbor Coke Company, LP, whose source ID is 089-00382, in Lake County shall comply with the following emissions limits:
(1) Each coke oven battery, including coke oven battery A through D, shall:
(A) operate only as heat-recovery coke oven battery using staged combustion **inherent to its design**;
(B) operate using only natural gas as fuel when supplemental heating is necessary; and
(C) be operated and maintained in accordance with the manufacturer's specifications and good combustion practices for the control of NOx emissions. (SunCoke)

Response: IDEM agrees that the language SunCoke requests to be added in 326 IAC 10-7-8(g)(1)(A) clarifies the intent of this requirement so it will be revised in the rule as recommended.

Comment: SunCoke commented that the Proposed Rule requires an extremely detailed RACT engineering study under 326 IAC 10-7-6 from affected sources, except for sources subject to the general emissions limitations in section 4 of the rule or sources exempt from the rule under section 7. As such, IHCC requests that IDEM add an explicit exemption for facilities with source-specific requirements under section 8 of the rule.

SunCoke explained that an exemption for section 8 sources is entirely consistent with the

intent of the rule based on its plain language and IDEM's Regulatory Analysis. IDEM has already established a definition of RACT for sources like IHCC in section 8 based on engineering studies during the pre-rulemaking stages. Therefore, imposing a requirement to conduct an additional engineering study would be duplicative and would impose unnecessary costs and burdens on industrial facilities. (SunCoke)

Response: 326 IAC 10-7-6 outlines the requirements for major stationary sources subject to the rule to develop NOx RACT studies. Affected sources have the option to submit a source-specific NOx RACT study (engineering study) with proposed unit-specific emission limits and/or controls as an alternative to applicable presumptive limits for which the owner or operator claims achievement is technically infeasible or economically unreasonable and for unique and older units for which there were no presumptive limits to rely upon. The source-specific NOx RACT studies for sources requesting consideration of unit-specific emission limits and/or controls were submitted in mid-2024. These sources are not required to submit another NOx RACT study.

Comment: The CLC encouraged IDEM to follow the recommendations of the U.S. Environmental Protection Agency (U.S. EPA) and the Lake Michigan Air Directors Consortium ("LADCO"), of which IDEM is a member, to require use of low-NOx burners. The CLC stated that according to U.S. EPA, low-NOx burners can provide significant reductions in NOx emissions from a wide variety of emission sources at a relatively low-cost per ton of emissions and that LADCO reached a similar conclusion in 2022. The CLC recommends that the proposed rules require installation of low-NOx burners and other reasonably achievable control technologies to significantly reduce NOx emissions wherever feasible. (CLC)

Response: U.S. EPA and LADCO utilized the same top-down approach as the RACT studies submitted by affected sources to determine the feasibility of control technology where the most stringent control available for a similar or identical source or source category is identified. The most stringent control option is then used to establish the RACT emission limitation, unless the applicant can demonstrate (and IDEM agrees) that it is not "achievable" due to technical infeasibility or not being cost effective. If the top control alternative is eliminated, then the next most stringent level of control is evaluated. This process continues until RACT is selected. Low-NOx burners would have been considered during that process.

The cost effectiveness analysis for control techniques requires only two inputs, namely emission reductions in tons per year and control strategy cost in dollars per year. As such, cost effectiveness is a figure in dollars per ton of NOx emissions reductions per year. The actual cost, emission reduction, and cost-effectiveness levels that an individual source will experience meeting the NOx RACT requirements will vary from unit to unit and from area to area. These factors will differ from unit to unit because the sources themselves vary in age, condition, and size, among other considerations.

Comment: U.S. Steel requests that 326 IAC 10-7-8(b)(2)(A) be revised as follows because a group of blast furnace stoves (typically 3 or 4 stoves) operate as a unit when serving a given blast furnace:

(2) Blast Furnaces No. 4, No. 6, No. 8, and No. 14 shall comply with the following:

(A) Each **group of** blast furnace stove**s** **associated with a blast furnace** shall:
(i) receive ninety percent (90%) or more of its total gas volume from blast furnace gas as fuel on a rolling thirty (30) operating-day basis; and
(ii) be operated and maintained in accordance with the manufacturer's specifications and good combustion practices for the control of NOx emissions. (USS)

Response: IDEM agrees that the language USS requests to be added in 326 IAC 10-7-8(g)(1)(A) clarifies the intent of this requirement so it will be revised in the rule as recommended to include "group of"; however, adding "associated with blast furnace" is not needed.

Comment: U.S. Steel requests that IDEM include the following language to 326 IAC 10-7-8(b)(2)(A) pertaining to periods of blast furnace gas curtailment:

During periods of blast furnace reline, startup, shutdown and period of malfunction, the affected blast furnace stoves shall not be required to meet the requirement to derive ninety percent (90%) or more of its total gas volume from blast furnace gas. (USS)

Response: Sources are required to be in compliance with emission limits and requirements at all times, including during periods of reline, startup, shutdown, and malfunctions. This is an issue U.S. EPA has weighed in on a number of times in the past affirming that there is not a federal regulation to support the Commenter's language and maintaining that this language is no longer allowed. For an emission limit or requirement averaged on a thirty-day basis, sources need to plan reline, start-up, and shutdown events so emission limits and requirements are not exceeded, and in the event of a malfunction, sources have 30 days following that event to average out an emission limit or requirement to ensure compliance.

Comment: U. S. Steel requests that 326 IAC 10-7-10 Condition 3 be revised to clarify the third compliance option consisting of installation of a temporary continuous emissions monitoring system (CEMs). The qualifier pertaining to a permanent CEMs is not needed since the rule notes that compliance shall be demonstrated with the applicable emissions limit(s) by one of the following methods: permanent CEMS, performance test, temporary CEMS, or PEMS. U. S. Steel requests the following revision:

(3) ~~For an affected facility not installing a permanent continuous emissions monitoring system in accordance with subdivision (1) of this section,~~ Installation of a temporary continuous emissions monitoring system for thirty (30) operating days that is capable of measuring and recording NOx and, if necessary, a diluent (carbon dioxide or oxygen) concentration in addition to calculating NOx lb/mmBtu data in an ongoing basis. Facilities that install a temporary continuous emissions monitoring system shall comply with the following: (USS)

Response: IDEM does not agree that the language USS requests to be deleted in 326 IAC

10-7-8(g)(1)(A) is necessary so it will not be revised in the rule as recommended; however, "not installing" will be changed to "without" for clarity.

Comment: U. S. Steel requests that 326 IAC 10-7-10 be revised to clarify that for "emission limits" – specifically those as provided in Section 8, that are not numeric or where stack testing or permanent or temporary CEMs are not feasible or appropriate, the source shall keep appropriate records to document compliance. Section 8 of the Rule includes many requirements listed as "emission limits" that are not numeric and are operating or work practices for which performance testing or CEMs are not feasible. (USS)

Response: IDEM agrees that the language in Section 8 of the rule related to requirements that are not numeric and are operating or work practices for which performance testing or CEMs are not feasible could be clearer and more accurate so in these instances "emission limits" will be changed to "emission limits and equipment standards". Compliance demonstration and reporting requirements for these units will be specified in the source's Title V operating permit.

Comment: The Environmental Organizations commented that IDEM must take additional steps to comply with the requirements of the Clean Air Act ("CAA" or "Act") to address ozone pollution, and IDEM's newly proposed NOx RACT rules do not require most air pollution sources in the Indiana nonattainment area to install additional controls to address NOx emissions and thus fail to reduce ozone pollution in a meaningful way. Allowing almost all sources in the ozone nonattainment area to simply continue with current operations does not control pollution and bring the area into expeditious attainment with the 2015 ozone NAAQS, as required by the CAA. The Environmental Organizations argued that IDEM's actions thus far have been inadequate, and that IDEM must take stronger action to protect public health and the environment. Specifically, IDEM must (1) provide adequate public notice and a meaningful opportunity to review and comment on these NOx RACT SIP rules, and (2) undertake a RACT analysis that considers less-polluting RACT technologies that can expeditiously and meaningfully lower NOx emissions sources throughout these nonattainment areas. (EO)

Response: IDEM appreciates the Environmental Organizations' comments on Indiana's NOx RACT rule. Commenters specifically request the opportunity to review IDEM's technical support documents (TSD) for its State Implementation Plan (SIP) submission related to this rulemaking. The RACT studies and technical support documents are used to evaluate sources and develop proposed unit-specific emission limits and/or controls for NOx RACT. The final technical support documents must be included with Indiana's SIP submission to U.S. EPA after the conclusion of this rulemaking. These documents will provide U.S. EPA with technical information demonstrating that the final rule meets the requirements of the NOx SIP call, 88 FR 71757. Because the TSD cannot be finalized until the proposed limits become permanently enforceable, the documents are not typically made available during the underlying rulemaking process. While these technical support documents are not required to be published in conjunction with this rulemaking, IDEM has made them available for review on its website at https://www.in.gov/idem/sips/infrastructure-state-implementation-plans/.

As demonstrated in the TSD and as previously mentioned, affected sources utilized the top-down approach in their RACT studies to determine the feasibility of control technology where the most stringent control available for a similar or identical source or source category is identified. The most stringent control option is then used to establish the RACT emission

limitation, unless the applicant can demonstrate (and IDEM agrees) that it is not "achievable" due to technical infeasibility or not being cost effective. If the top control alternative is eliminated, then the next most stringent level of control is evaluated. This process continues until RACT is selected. IDEM reviewed the NOx RACT studies submitted by affected sources in other states as part of its due diligence review and found that the top-down approach was used to determine RACT in all of the studies reviewed.