

substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);

- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);

- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);

- Is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it approves a State program;

- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and

- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act.

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian Tribe has demonstrated that a Tribe has jurisdiction. In those areas of Indian country, the rule does not have Tribal implications and will not impose substantial direct costs on Tribal governments or preempt Tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

#### List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Nitrogen oxides, Ozone, Particulate matter, Sulfur oxides.

Dated: March 31, 2026.

Anne Vogel,

Regional Administrator, Region 5.

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## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA–R05–OAR–2025–0237; FRL–13273–01–R5]

#### Air Plan Approval; Ohio; Source-Specific Non-CTG RACT for Ohio

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve source-specific State Implementation Plan (SIP) revisions submitted by Ohio. These revisions address major source volatile organic compound (VOC) and nitrogen oxide (NO<sub>x</sub>) reasonably

available control technology (RACT) requirements for the Cleveland, OH Moderate nonattainment area (Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit counties) under the 2015 ozone National Ambient Air Quality Standard (“NAAQS” or “standard”). The affected facilities include Lubrizol, Henkel, and Cleveland-Cliffs Cleveland Works. If this action is finalized as proposed, the Cleveland nonattainment area will have fully satisfied its moderate RACT requirements under the CAA with respect to the 2015 ozone standard.

**DATES:** Comments must be received on or before May 11, 2026.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA–R05–OAR–2025–0237 at <https://www.regulations.gov>, or via email to [arra.sarah@epa.gov](mailto:arra.sarah@epa.gov). For comments submitted at [Regulations.gov](https://www.regulations.gov), follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI), Proprietary Business Information (PBI), or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.* on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI, PBI, or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

#### FOR FURTHER INFORMATION CONTACT:

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#### SUPPLEMENTARY INFORMATION:

Throughout this document whenever “we,” “us,” or “our” is used, we mean the EPA.

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### I. RACT Requirements

VOCs and NO<sub>x</sub> contribute to the production of ground-level ozone, or smog, which harms human health and the environment. The EPA has consistently defined RACT as the lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.<sup>1</sup>

Sections 182(b)(2) and 182(f) of the Clean Air Act (CAA), when taken together, require States to implement RACT for VOC and NO<sub>x</sub> in ozone nonattainment areas classified as Moderate and higher. Specifically, these areas are required to implement RACT for all sources covered by a Control Techniques Guideline (CTG) and all other major stationary sources of VOCs and NO<sub>x</sub> in the area.<sup>2</sup> For the purposes of RACT in Moderate ozone nonattainment areas, major sources of VOCs and NO<sub>x</sub> are those that are not covered by CTGs and have the potential to emit (PTE) at least 100 tons per year (tpy).

To address non-CTG RACT requirements, Ohio adopted Ohio Administrative Code (OAC) rules 3745–21–11 and 3745–110–03(J), which require major sources of VOCs and NO<sub>x</sub> that are not covered by a CTG to submit detailed source-specific RACT studies analyzing the technological and economic feasibility of available control measures. Ohio evaluated the information provided in the required studies, made a RACT determination for each major source, and submitted the RACT determinations to the EPA for approval and incorporation into the Ohio SIP.

<sup>1</sup> See Memorandum from Roger Strelow, Assistant Administrator for Air and Waste Management, U.S. EPA, to Regional Administrators, U.S. EPA, “Guidance for Determining Acceptability of SIP Regulations in Non-Attainment Areas” (Dec. 9, 1976); see also 44 FR 53761, 53762 (September 17, 1979).

<sup>2</sup> CTGs provide recommendations to inform State, local, and Tribal air agencies as to what constitutes RACT for categories of VOC sources.

## II. History of the Cleveland Nonattainment Area Under the 2015 Ozone NAAQS

Effective August 3, 2018, the EPA designated the Cleveland nonattainment area as a Marginal nonattainment area for the 2015 ozone NAAQS (“Cleveland nonattainment area”).<sup>3</sup> The Cleveland nonattainment area consists of Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit counties. On October 7, 2022, pursuant to section 181(b)(2) of the CAA, the EPA determined that the Cleveland nonattainment area failed to attain the 2015 ozone NAAQS by the August 3, 2021, Marginal area attainment deadline and thus proposed to reclassify the area from Marginal to Moderate nonattainment.<sup>4</sup> In that action, the EPA established January 1, 2023, as the due date for the State to submit all Moderate area nonattainment plan SIP requirements applicable to newly reclassified areas. Since the Cleveland nonattainment area was reclassified to Moderate, the area was required to meet the RACT requirements discussed above at 100 tpy. On December 17, 2024, the EPA determined that the Cleveland nonattainment area failed to attain the 2015 ozone NAAQS by August 3, 2024, Moderate area attainment deadline and thus reclassified the area from Moderate to Serious nonattainment. The new Serious RACT requirement was due on January 1, 2026, but this action addresses Moderate RACT requirements only.<sup>5</sup>

## III. History of Ohio’s VOC and NO<sub>x</sub> RACT Regulations

Ohio has adopted regulations to address the NO<sub>x</sub> and VOC RACT requirements that apply to Moderate ozone nonattainment areas. The NO<sub>x</sub> RACT rules, in OAC Chapter 3745–110, effective March 25, 2022, apply to existing boilers, stationary combustion turbines, stationary internal combustion engines, reheat furnaces, and other sources at facilities that have an uncontrolled potential to emit 100 tpy or more of NO<sub>x</sub>. These rules apply to sources located in the Cleveland nonattainment area.

Similarly, the VOC RACT rules, in OAC Chapter 3745–21, effective March 27, 2022, apply to various VOC source categories in the Cleveland nonattainment area. These rules cover both CTG source categories and non-CTG major sources with an uncontrolled potential to emit 100 tpy or more of VOCs.

Ohio EPA submitted OAC Rules 3745–21–11 and 3745–110–03(J) to the EPA for approval and inclusion in the SIP on March 31, 2022. These rules require major non-CTG VOC and NO<sub>x</sub> sources located in ozone nonattainment areas classified as Moderate or higher to submit RACT studies to Ohio within one year of the rule’s effective date. These RACT studies contain information on the technical and economic feasibility of VOC and NO<sub>x</sub> emission control measures to inform Ohio’s RACT determinations for each major source.

On January 20, 2026 (91 FR 2308), the EPA approved portions of OAC Chapters 3745–21 and 3745–110 as satisfying certain moderate VOC RACT and NO<sub>x</sub> RACT requirements for the Cleveland nonattainment area. In the same action, the EPA also approved OAC 3745–21–11 and 3745–110–03(J) as SIP strengthening measures for the Cleveland area designated nonattainment under the 2015 ozone standard.

On February 27, 2026 (91 FR 9771), the EPA proposed to approve source-specific moderate non-CTG RACT for certain facilities in the Cleveland nonattainment area under the 2015 ozone standard subject to OAC 3745–21–11 and 3745–110–03(J). The EPA has not yet finalized that proposed action. This action addresses the remaining non-CTG major source RACT facilities subject to OAC 3745–21–11 and 3745–110–03(J) in the Cleveland nonattainment area.

## IV. What is the EPA proposing?

The EPA is proposing to approve the following RACT determinations submitted by Ohio for major sources of VOCs and NO<sub>x</sub> in the Cleveland nonattainment area as meeting RACT requirements.

### V. Lubrizol

Lubrizol operates a chemical manufacturing facility located in Painesville, Ohio, within the Cleveland nonattainment area. The facility is subject to source-specific RACT requirements under OAC 3745–21–09(LL) for its process reactor systems. As a major non-CTG VOC source, Lubrizol must also submit an updated source-specific RACT study under OAC 3745–21–11. Ohio submitted a VOC RACT determination based on this study to the EPA on October 8, 2025. Lubrizol manufactures specialty chemical products, including additive systems for lubricating oils used in gasoline and diesel engines, automatic transmissions, gear drives, marine engines, tractors, and metalworking.

The primary VOC emission sources are process reactor systems, drum/tote filling lines, and product loading racks.

The EPA approved OAC 3745–21–09(LL) into the Ohio SIP to address non-CTG VOC RACT for the 1-hour ozone standard on April 25, 1996 (61 FR 18255). The rule requires all reactor process vent streams to be routed to an enclosed combustion device that achieves at least 98 percent VOC destruction (or 20 parts per million by volume(ppmv) outlet concentration) or provides at least 0.75 seconds of residence time at 1600 °F. Lubrizol meets and exceeds these requirements. Reactor vent emissions are controlled by two redundant thermal oxidizers that achieve over 99.9 percent VOC destruction efficiency. Continuous temperature monitoring ensures proper combustion and consistent performance between tests. Lubrizol reviewed the EPA’s RACT/BACT/LAER Clearinghouse (RBLC) for due diligence purposes and found that that BACT for process vents in the chemical manufacturing industry typically requires add-on controls achieving 98 percent destruction efficiency. The existing 98 percent control is more stringent than the non-CTG RACT catch-all provisions in other Region 5 State rules, including Illinois and Indiana (which require at least an 81 percent reduction in VOC emissions). Since Lubrizol achieves greater than BACT-level control and is more stringent than the non-CTG RACT catch-all rules described above, Ohio determined that continued compliance with OAC 3745–21–09(LL) satisfies RACT for these emission units.<sup>6</sup> The EPA is proposing to approve Ohio’s RACT determination that these controls implement RACT.

Emission unit P132 includes four drum lines and one tote line. VOC emissions from these operations are vented to the same thermal oxidizers used for the reactor vents described in the prior paragraph, which achieve over 99.9 percent destruction efficiency. The facility is currently required to implement submerged filling and venting to a thermal oxidizer capable of at least 98 percent destruction

<sup>6</sup> Prevention of Significant Deterioration (PSD) permits are required for new major sources or a major source making a major modification in areas that meet the NAAQS. PSD permits require the installation of Best Available Control Technology (BACT). BACT is an emissions limitation which is based on the maximum degree of control that can be achieved. It is a case-by-case decision that considers energy, environmental, and economic impact. BACT can be add-on control equipment or modification of the production processes or methods. The RACT/BACT/LAER Clearinghouse (RBLC) database contains information on what has been required as BACT in air permits.

<sup>3</sup> 83 FR 25776 (June 4, 2018).

<sup>4</sup> 87 FR 60897 (October 7, 2022).

<sup>5</sup> 89 FR 101901 (December 17, 2024).

efficiency. These practices meet or exceed recent BACT determinations for similar filling operations, which typically require submerged filling and add-on controls achieving at least 98 percent VOC reduction. Therefore, Ohio determined that submerged filling combined with thermal oxidation ( $\geq 98$  percent efficiency) constitutes RACT for these operations. The EPA proposes to approve Ohio's assessment that these controls implement RACT.

Lubrizol operates multiple product loading racks, many equipped with thermal oxidizers or carbon adsorption systems. Actual VOC emissions from these units ranged from 0.01 to 0.88 tpy during 2019–2021. Based on the EPA's estimate of the cost of additional control technologies, which is well over \$30,000 per ton of VOC removed, the EPA is proposing to find that additional controls would not be economically reasonable. To minimize emissions, Lubrizol implements work practices including ensuring complete drainage of loading arms before disconnection and preventing liquid drainage when not in use. Many loading racks are also subject to VOC limits under Best Achievable Technology (BAT).<sup>7</sup> Ohio determined that RACT for these operations consists of existing controls, emission limits, and work practices listed in Table 3–2 of Lubrizol's RACT submittal (included in the docket). Ohio included these requirements in a construction permit and is requesting that the EPA incorporate these provisions of the permit into the SIP. The EPA proposes to approve Ohio's RACT determination that these controls implement RACT.

In sum, the EPA is proposing to approve Ohio's RACT determination for Lubrizol as adequately implementing RACT, which includes the following measures summarized above and in Table 3–3 of the docket: continued compliance with site-specific RACT under OAC 3745–21–09(LL) for all process reactor vents; use of submerged filling and venting to a thermal oxidizer achieving greater than 98 percent VOC control efficiency for the drum/tote filling operations; and implementation of existing controls, emission limits, and work practices for the loading racks as specified in the permit sections listed below. Given the already low emissions at Lubrizol (.01 to .88 tpy of VOC) and

the EPA's cost estimate described above, additional controls would be economically unreasonable.

The EPA proposes to incorporate by reference the above RACT requirements from permit number P0138405 (effective date: October 1, 2025), specifically sections (B)(2)–(B)(5), (C)(1)(b)(1)(b), (C)(1)(b)(2)(a), (C)(1)(d)(1), (C)(1)(e)(1), and (C)(1)(f)(2).

## VI. Henkel

Henkel US Operations Corporation operates an adhesives and sealants manufacturing facility in Mentor, Ohio, within the Cleveland ozone nonattainment area. The facility is a major source of non-CTG VOC emissions and must submit a source-specific RACT study under OAC 3745–21–11. Ohio submitted this VOC RACT determination to the EPA on November 25, 2025.

The facility produces adhesives and sealants by blending organic solvents and inert fillers in batch mixers, which are the primary sources of VOC emissions. VOC emissions are controlled with condensers that circulate a chilled water/propylene glycol mixture through coiled tubes, cooling vent gases and condensing a portion of the VOC vapors.

To fulfill requirements of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Coating Manufacturing (MCM), Henkel submitted to Ohio EPA a condenser design evaluation to demonstrate MACT compliance, establishing maximum outlet gas temperatures.<sup>8</sup> Using the same methodology, Henkel later submitted a design evaluation to demonstrate 85 percent VOC removal efficiency under OAC 3745–21–07(M), resulting in lower outlet temperature limits. OAC 3745–21–07(M) contains Ohio's facility-specific VOC control requirements for emissions of organic materials from stationary sources.

Achieving removal efficiencies above 85 percent would require reducing condenser outlet temperatures further—either by lowering coolant temperatures or increasing condenser surface area. However, the chilled water system already operates near the freezing point, and past attempts to reduce temperatures have caused ice formation and vent blockages. A two-stage condenser system or larger condensers could mitigate this issue but, would require significant equipment

replacement and reconfiguration, with minimal additional VOC reduction, so would be economically unreasonable. Further, 85 percent reduction is higher than the non-CTG RACT catch call rules in other States in Region 5, including Illinois and Indiana, which require 81 percent reduction in VOC emissions at a minimum.

Henkel also evaluated alternative add-on controls, including incineration, carbon adsorption, and biofiltration. Biofiltration is technically infeasible because the facility's predominant VOCs are water-insoluble. Incineration and carbon adsorption are technically feasible, but not cost-effective: incineration would cost between \$32,109–\$43,841 per ton of VOC removed, and carbon adsorption would cost \$29,482 per ton.

These analyses show that add-on controls are either technically infeasible or economically unreasonable. The existing condensers already achieve 85 percent VOC reduction, and the facility has already substantially lowered its VOC emissions by shifting production toward low- or no-VOC materials.

Based on Henkel's analysis, Ohio EPA concludes that the facility's current practices—use of low-VOC materials and condenser systems achieving 85 percent control—are RACT for this source. Ohio included these requirements in a construction permit and is requesting that the EPA incorporate these provisions of the permit into the SIP.

The EPA proposes to approve Ohio's assessment that these controls implement RACT and to incorporate by reference the above RACT requirements from permit number P0138691 (effective date: November 18, 2025), specifically sections B.4, C.1.b)1.g, C.1.c)2, C.1.d)5, C.1.e)7, C.1.f)2, C.2.b)1.f, C.2.c)2, C.2.d)6, C.2.e)7, C.2.f)2, C.3.b)1.g, C.3.c)2, C.3.d)5, C.3.e)7, C.3.f)2, C.4.b)1.g, C.4.c)4, C.4.d)5, C.4.e)6, C.4.f)2, C.5.b)1.j, C.5.c)3, C.5.d)6, C.5.e)9, C.5.f)2, C.6.b)1.d, C.6.c)2, C.6.d)2, C.6.e)4, C.6.f)3, C.7.b)1.d, C.7.c)2, C.7.d)2, C.7.e)4, and C.7.f)3.

## VII. Cleveland-Cliffs Cleveland Works—NO<sub>x</sub> RACT

Cleveland-Cliffs Cleveland Works LLC is an integrated steelmaking plant in the Cleveland nonattainment area. Because the facility is a major source of NO<sub>x</sub> with a PTE greater than 100 tpy, it is subject to site-specific NO<sub>x</sub> RACT under OAC 3745–110–03(J). Ohio submitted this NO<sub>x</sub> RACT determination to the EPA on November 20, 2025.

The facility emits NO<sub>x</sub> from numerous sources, including boilers, reheat furnaces, batch annealing furnaces, a continuous annealing line,

<sup>7</sup> BAT is defined in OAC 3745–31–01(B)(6) as “any combination of work practices, raw material specifications, throughput limitations, source design characteristics, an evaluation of the annualized cost per ton of air pollutant removed, and air pollution control devices that have been previously demonstrated to the director of environmental protection to operate satisfactorily in this state or other states with similar air quality on substantially similar air pollution sources.”

<sup>8</sup> 40 CFR part 63 subpart HHHHH—NESHAP: Miscellaneous Coating Manufacturing requires this condenser design evaluation per 40 CFR 63.1257(d) for the initial compliance demonstration of maximum achievable control technology (MACT) on the existing process vessels at this plant.

blast furnaces, basic oxygen furnaces, and ladle preheaters. The facility operates under title V permit No. P0129660, effective March 9, 2021.

Boilers B001 through B007 are already subject to the NO<sub>x</sub> RACT limits in OAC 3745–110–03(C) and (D)—0.08 pounds per million British thermal units (lb/MMBtu) for gas-fired boilers, 0.2 lb/MMBtu for residual-oil-fired boilers, and 0.3 lb/MMBtu for coal-fired boilers—and are therefore already implementing RACT in accordance with these federally approved provisions. The EPA has previously approved OAC 3745–110–03(C) and (D) as satisfying moderate NO<sub>x</sub> RACT for the Cleveland nonattainment area (January 20, 2026, 91 FR 2308).

#### A. Reheat Furnaces

Cleveland-Cliffs operates three natural-gas-fired reheat furnaces: Reheat Furnaces #1 (P046), #2 (P047), and #3 (P048)—each rated at 630 MMBtu/hr. Cleveland-Cliffs evaluated selective catalytic reduction (SCR), selective noncatalytic reduction (SNCR), and upgraded low-NO<sub>x</sub> burners (LNBS) as potential NO<sub>x</sub> control options.

Cleveland-Cliffs found SCR technically infeasible. The batch-type furnace operation involves frequent door openings and unstable exhaust temperatures, which prevent the consistent temperature control required for effective SCR catalyst performance.

Cleveland-Cliffs also determined that SNCR is technically infeasible. Exhaust temperatures are too low for effective NO<sub>x</sub> reduction, and reheating the flue gas to reach the required temperature would significantly increase fuel use and produce additional NO<sub>x</sub>.

The reheat furnaces currently use LNBS. Cleveland-Cliffs evaluated replacing the current burners with newer LNB models capable of achieving 0.074 lb/MMBtu (compared to the current 0.35 lb/MMBtu limit). However, the high cost—\$14,631 to \$29,400 per ton of NO<sub>x</sub> removed—renders this option economically unreasonable.

Ohio determined that putting on additional controls for the reheat furnaces is technically infeasible and economically unreasonable. However, Ohio requires the source to submit an updated RACT study if the NO<sub>x</sub> emissions ever exceed 348.3 tpy per rolling 12-month period for each reheat furnace. If emissions are higher than 348.3 tpy for a 12-month period, then the cost of the available control technologies per ton of NO<sub>x</sub> removed may become economically reasonable.

This emission level was based on the highest maximum actual emissions among the previous three years from the

effective date of OAC rule 3745–110–03. If a unit exceeds this level during any 12-month rolling period, the facility must submit a new RACT analysis to Ohio within one year. The EPA is proposing to approve Ohio's RACT determination for units P046–P048 and the requirement that the source submit an updated RACT study to Ohio if the units exceed the emission level of 348.3 tpy of NO<sub>x</sub>.

#### B. Batch Annealing Furnaces

At Cleveland Works, there are currently 77 operational and nine spare batch annealing furnaces at the North Annealing (P049) and South Annealing (P050) sections. Batch annealing emissions exhaust through multiple indoor stacks, and the system lacks a common stack suitable for post-combustion controls. Therefore, SCR and SNCR are technically infeasible for batch annealing operations.

The batch annealing furnaces have existing LNBS with inherently low NO<sub>x</sub> emissions of 1.2 tpy each for units P049 and P050, as demonstrated by the current NO<sub>x</sub> emission limit of 0.10 lb/MMBtu, which is consistent with the most recent BACT determination in the EPA's RBLC database. Due to the already low NO<sub>x</sub> emission levels, installing newer model LNBS to achieve only marginal additional NO<sub>x</sub> reductions from the batch annealing furnaces would not be economically reasonable. Ohio determined that RACT for batch annealing sections P049 and P050 is continued use of the existing LNBS and continued compliance with the 0.10 lb/MMBtu limit.

#### C. Hot Dip Galvanizing Line

The Hot Dip Galvanizing Line (HDGL) includes a 159.17 MMBtu/hr continuous annealing furnace. SCR and SNCR are technically infeasible with the current stack configuration. Its current stack configuration poses significant challenges for installing post-combustion controls. Two exhaust ducts discharge into a common stack inside the building. Installing SCR or SNCR would require removing the existing stack, consolidating the ducts into a single duct, and routing the system to a new external stack, which is economically unreasonable. Cleveland-Cliffs therefore determined that SCR and SNCR are both economically unreasonable and technically infeasible.

The furnace currently uses LNBS with expected NO<sub>x</sub> loadings of 0.27 to 0.30 lb/MMBtu. Cleveland-Cliffs evaluated the cost-effectiveness of replacing the existing burners with newer LNB models and found it would cost \$31,937 to \$37,998 per ton of NO<sub>x</sub> removed,

which the State determined is economically unreasonable. Ohio determined that RACT for the HDGL Annealing Furnace (Unit P071) consists of continued use of the existing LNBS and compliance with the 0.23 lb/MMBtu NO<sub>x</sub> limit. The EPA proposes to approve Ohio's RACT determination that these controls implement RACT.

#### D. Blast Furnaces

Cleveland-Cliffs operates two blast furnaces (P903 and P904) subject to this RACT review. Both units burn blast furnace gas (BFG), which has a low heating value and limits combustion temperature, resulting in inherently low NO<sub>x</sub> emissions and minimal potential for further reduction. NO<sub>x</sub> emissions at the blast furnaces are from the stoves, the cast house, and the flare.

In the cast house, natural gas is used for flame suppression during casting, and NO<sub>x</sub> forms when the gas exits pipe ends and ignites. Because these emissions are fugitive and lack a stack, SCR and SNCR are technically infeasible. The flare burns excess furnace gas and is an open system without a stack, making SCR and SNCR infeasible there as well.

For the stoves, SCR installation is technically infeasible due to exhaust temperatures (500 °F) below the 600 to 700 °F operating range, the need to reheat large gas volumes (which would increase NO<sub>x</sub> and GHG emissions, low inlet NO<sub>x</sub> concentrations (leading to low removal efficiency and high ammonia slip), and catalyst fouling concerns from particulates in BFG. SNCR is also technically infeasible because the furnace exhaust temperatures are far below the 1600–2100 °F required for effective operation and reheating would generate additional NO<sub>x</sub> emissions.

LNBS cannot be implemented for the cast house because it relies on pilot flames instead of burners for the flare. Ohio determined that LNBS are not economically reasonable because the stoves are already meeting a NO<sub>x</sub> limit of 0.06 lb/MMBtu, which is similar to emissions limits achieved by LNBS.

Ohio determined that RACT for this facility includes continued use of low-NO<sub>x</sub> BFG for the cast house, flare, and stoves. Also, Ohio determined that RACT includes minimizing NO<sub>x</sub> emissions from the cast house and flare through proper operation and maintenance in accordance with manufacturer specifications. For the blast furnace stoves, RACT is defined as meeting a site-specific NO<sub>x</sub> limit of 0.06 lb/MMBtu. The EPA proposes to approve Ohio's RACT determination that these controls implement RACT.

### E. Basic Oxygen Furnaces

Cleveland-Cliffs operates two basic oxygen furnace (BOF) systems: a full-combustion system (No. 2 BOF, P925/P926) and a suppressed-combustion system (No. 1 BOF, P905/P906). Because BOF vessels do not use burners, LNBs are not technically feasible control options.

SCR and SNCR are also technically infeasible for BOFs. Gas temperatures within the primary hoods vary throughout the batch blow cycle, preventing the consistent temperature and residence time required for either technology to operate effectively. In addition, high particulate levels would quickly foul and poison catalysts.

Because no technically feasible control options are available to meet RACT, Ohio established additional requirements for the BOFs, including installing, maintaining, and operating each system in accordance with manufacturer specifications and good operating practices to minimize NO<sub>x</sub> emissions. The EPA proposes to approve Ohio's determination that these controls implement RACT.

### F. Ladle Preheaters

Steel shops use ladle preheaters to dry or cure refractory materials. Available NO<sub>x</sub> control technologies for ladle preheaters include SCR, SNCR, and LNBs. Because emissions from the preheaters are fugitive and released directly into the melt shop without a stack, post-combustion controls such as SCR and SNCR are technically infeasible.

The preheaters already use inherently low-NO<sub>x</sub> burners. Cleveland-Cliffs evaluated newer LNB designs but found them technically infeasible for these preheaters due to the inability to maintain a tight seal between the burner and ladle lip. The equipment is designed to allow intentional air leakage to avoid suffocating the furnace, and this air flow cannot be eliminated. As a result, operators cannot control the combustion zone conditions needed to achieve or verify the performance of newer LNBs, making additional NO<sub>x</sub> reductions unlikely.

Therefore, Ohio determined that RACT includes continued use of the existing inherently low-NO<sub>x</sub> burners for the ladle preheaters. Also, RACT consists of continued compliance with the site-specific NO<sub>x</sub> limit of 0.10 lb/MMBtu. Ohio's due diligence review of control options for ladle preheaters at similar sources in the RBLC supports this limit, as it is consistent with the most recent BACT determination for comparable units. The EPA proposes to

approve Ohio's RACT determination that these controls implement RACT.

Ohio included the Cleveland-Cliffs Cleveland Works NO<sub>x</sub> RACT requirements in construction permit number P0138036 and is requesting that the EPA incorporate these provisions of the permit into the SIP. In sum, the EPA is proposing to approve Ohio's RACT determination for Cleveland Works with respect to NO<sub>x</sub> emissions as adequately implementing RACT, and proposes to incorporate by reference the above RACT requirements from permit number P0138036 (Effective Date: November 13, 2025), specifically sections C.1.b)1. j., C.1.b)1. k., C.1.b)2.h., C.1.d) 6., and C.1.d) 7., C.1.e)6., and C.1.f)1.g. The EPA also proposes to incorporate by reference the above RACT requirements from permit number P0138136 (Effective Date: November 13, 2025), specifically sections C.5.b)1.e., C.5.b)1.f., 5.b)2.d., C.5.d)5., C.5.e)5., C.5.e)6., C.5.f)1.e., C.6.b)1.e., C.6.b)1.f., C.6.b)2.d., C.6.f)1.b., C.7.b)1.i., C.7.b)1.j., C.7.b)2.f., C.7.d)6., C.7.d)7., C.7.e)7., C.7.f)1.e., C.8.b)1.f., C.8.b)1.g., C.8.b)2.e., C.8.d)3., C.8.e)5., C.8.f)1.d., C.9.b)1.e., C.9.b)1.f., C.9.b)2.f., C.9.d)3., C.9.e)4., and C.9.f)1.e. Additionally, the EPA proposes to incorporate by reference the above RACT requirements from permit number P0138521 (Effective Date: November 13, 2025), specifically sections C.1.b)1.e., C.1.b)1.f., C.1.b)2.c., and C.1.f)1.a.

### VIII. Cleveland-Cliffs Cleveland Works—VOC RACT

Cleveland-Cliffs Cleveland Works LLC is also a major non-CTG VOC source, with potential emissions exceeding 100 tpy, and is therefore subject to site-specific VOC RACT under OAC 3745–21–11. Ohio submitted this VOC RACT determination to the EPA on November 20, 2025. VOC emissions at the facility originate from the boilers, reheat furnaces, blast furnaces, BOF operations, and the tandem mill. The facility operates under title V Permit No. P0129660 (effective March 9, 2021).

#### A. Tandem Mill (P107)

The tandem mill is a rolling mill consisting of multiple closely spaced stands in a continuous line that emit VOCs from emulsified, water-based rolling oils that form mist during operation. The unit is equipped with a chevron-style oil demister that provides VOC reduction.

Cleveland-Cliffs evaluated multiple VOC control options:

- *Thermal incineration*: This is technically infeasible because the 90 °F exhaust temperature is significantly

below the 1,300 °F required, and reheating the high-moisture, low-VOC stream would require excessive fuel, increasing both NO<sub>x</sub> and VOC emissions.

- *Catalytic incineration*: This is technically infeasible due to insufficient exhaust temperature (90 °F vs. the 850–1,100 °F required), variable VOC concentrations, and risk of catalyst poisoning.

- *Carbon adsorption*: This is technically infeasible because the exhaust stream would rapidly foul the carbon bed, making regeneration or replacement impractical.

- *Lower-VOC materials*: This is technically infeasible due to operational needs, steel quality specifications, and customer requirements. Only the mill threading compound has a potential lower-VOC substitute, but its use could destabilize the rolling oil and compromise product quality.

The tandem mill's existing oil demister removes visible and entrained oil vapor, moisture, and VOC mist. The facility is required to maintain the mill and mist eliminator consistent with good engineering practices. The tandem mill is also subject to a 12-month rolling VOC limit of 138.91 tpy under Ohio's BAT program.

Because the alternative control technologies identified above are technically infeasible, Ohio determined that RACT for the tandem mill consists of continued operation of the oil demister using good engineering practices, along with compliance with the BAT limit. The EPA proposes to approve Ohio's assessment that these controls constitute RACT.

Ohio also evaluated appropriate VOC content limits for oils used at the tandem mill and adopted limits consistent with those applied at Cleveland-Cliffs' Middletown Works facility. Ohio determined that the following VOC content limits constitute RACT:

- *Rolling Oil*: ≤ 4.6 lb VOC/gal (excluding water and exempt solvents)
- *Rust Preventive Oil*: ≤ 3.3 lb VOC/gal
- *Anti-Galling Material*: ≤ 1.2 lb VOC/gal
- *Pre-Lube Oil*: ≤ 0.8 lb VOC/gal

VOC content must be determined using the test methods in OAC 3745–21–10 or, alternatively, ASTM E1868–10 at actual operating temperature. The EPA proposes to approve Ohio's RACT determination that these controls are RACT.

### B. Gas Combustion Sources (Excluding Blast Furnaces)

This facility operates various combustion units including boilers, reheat furnaces, annealing furnaces, and BOF vessels. Each unit's actual emissions range from 0.1 to 6.6 tpy of VOCs, and add-on controls are not economically reasonable. In addition, a review of the EPA's RBLC database for comparable combustion sources installed within the past five years shows that VOC BACT consists of good combustion and operating practices.

Because the alternative control technologies for these units are not economically reasonable, Ohio determined that RACT for these sources consists of operating the units in accordance with manufacturer specifications and good engineering practices. The EPA proposes to approve Ohio's RACT determination that these controls implement RACT.

### C. Blast Furnaces (P903 and P904)

Cleveland-Cliffs evaluated four potential VOC control technologies for the combined blast furnace exhaust:

- **Thermal and catalytic incineration:** These are not economically reasonable due to highly dilute VOC concentrations, requiring substantial supplemental fuel. Cost-effectiveness ranges from \$99,676 to \$134,286 per ton of VOC removed.

- **Carbon adsorption:** This is technically infeasible because the exhaust temperature (500 °F) exceeds operating limits for carbon beds (<130 °F), the stream is too dilute and moisture-laden, and fire risks are significant.

- **Scrubbing (absorption):** This is technically infeasible because meaningful VOC removal is not achievable at such low concentrations without impractically large equipment, and scrubbers typically must be paired with controls (carbon adsorption or incineration) that are themselves infeasible.

- **Condensation:** This is technically infeasible because VOC concentrations are far below levels where condensation would be effective, and the required temperatures would cause moisture to freeze and plug the system.

Because the alternative VOC technologies identified above are either technically infeasible or economically unreasonable for the blast furnace exhaust, Ohio determined that RACT consists of operating the blast furnaces in accordance with manufacturer specifications and good engineering practices to minimize emissions. The EPA is proposing to approve Ohio's

RACT determination that these controls constitute RACT.

In sum, the EPA is proposing to approve Ohio's RACT determination for Cleveland Works with respect to VOC emissions as adequately implementing RACT and proposes to incorporate by reference the above RACT requirements from permit number P0138035 (Effective Date: November 13, 2025), specifically sections C.1.b)1.e, C.1.b)2.a, C.1.d)2, C.1.d)3, C.1.d)4, C.1.e)2, C.1.e)3, C.1.e)5, C.1.f)1.d, C.1.f)1.f, C.1.f)2. The EPA also proposes to incorporate by reference the above RACT requirements from permit number P0138036 (Effective Date: November 13, 2025), specifically sections C.1.b)1.i, C.1.b)2.g, C.1.d)6, C.1.e)6.a. Finally, the EPA proposes to incorporate by reference the above RACT requirements from permit number P0138136 (Effective Date: November 13, 2025), specifically sections B.11, C.1.b)1.g, C.1.d)7, C.1.e)5, C.2.b)1.g, C.2.d)9, C.2.e)6, C.3.b)1.e, C.3.d)4, C.3.e)4, C.4.b)1.f, C.4.d)9, C.4.e)6, C.5.b)1.d, C.5.d)4, C.5.e)4, C.6.b)1.d, C.6.d)3, C.6.e)4, C.7.b)1.h, C.7.d)5, C.7.e)6, C.8.b)1.e, C.8.d)2, and C.8.e)4.

### IX. What action is the EPA taking?

The EPA is proposing to approve the following as RACT in the Cleveland Moderate nonattainment area with respect to the 2015 ozone NAAQS:

- **Lubrizol:** continued compliance with site-specific RACT under OAC 3745-21-09(LL) for all process reactor vents; use of submerged filling and venting to a thermal oxidizer achieving greater than 98 percent VOC control efficiency for the drum/tote filling operations; and implementation of existing controls, emission limits, and work practices for the loading racks as detailed in the permit provisions described above.

- **Henkel:** continued current operational practices of utilizing low-VOC materials and the use of condenser systems to reduce VOC emissions by 85 percent, as detailed in the permit provisions described above.

- **Cleveland-Cliffs Cleveland Works**

- **NO<sub>x</sub> RACT:**
- **Reheat Furnaces (P046–P048):** Requirement to submit updated NO<sub>x</sub> RACT study per 3745-110-03(J) if NO<sub>x</sub> emissions exceed 348.3 tpy per furnace on a 12-month rolling average.

- **Batch annealing Furnaces (P049 and P050):** Continued operation of existing LNBs and compliance with existing NO<sub>x</sub> limit of 0.10 lb/MMBtu.

- **HDGL Annealing Furnace (Unit P071):** Continued use of the existing LNBs and compliance with the 0.23 lb/MMBtu NO<sub>x</sub> limit.

- **Blast Furnaces (P903 and P904):** Continued use of low-NO<sub>x</sub> BFG; Casthouse and Flare- install, maintain, and operate the source in accordance with manufacturer specifications and with good operating practices for the control of NO<sub>x</sub> emissions; Blast furnace stoves- Continued compliance with existing NO<sub>x</sub> limit of 0.06 lb/MMBtu.

- **Basic Oxygen Furnaces and Ladle Preheaters (P905/P906 and P925/P926):** BOFs—install, maintain, and operate the source in accordance with the manufacturer's specifications and with good operating practices for the control of NO<sub>x</sub> emissions; Ladle Preheaters- Continued use of the existing inherently low-NO<sub>x</sub> burners and continued compliance of the site-specific NO<sub>x</sub> limit of 0.10 lb/MMBtu.

- **VOC RACT:**

- **Combustion Units (B001–B007, B046–B050, P903–P906):** Operate the source in accordance with the manufacturer's specifications and with good operating practices for the control of VOC emissions.

- **Tandem Mill (P107):** Continued operation of chevron-style oil demister in accordance with good engineering practices; Compliance with existing VOC BAT limit of 138.91 tons per rolling 12-month period; Compliance with proposed VOC content limits for rolling oils described in more detail in the preamble above.

### X. Incorporation by Reference

In this rule, the EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference Ohio rule 3745-21-09(LL), and the permit provisions discussed in the preamble. The EPA has made, and will continue to make, these documents generally available through [www.regulations.gov](http://www.regulations.gov) and at the EPA Region 5 Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

### XI. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve State choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves State law as meeting Federal requirements and does not impose additional requirements beyond

those imposed by State law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- Is not subject to Executive Order 14192 (90 FR 9065, February 6, 2025) because SIP actions are exempt from review under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104-4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997) because it approves a State program;
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001); and
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA.

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian Tribe has demonstrated that a Tribe has jurisdiction. In those areas of Indian country, the rulemaking does not have Tribal implications and will not impose substantial direct costs on Tribal governments or preempt Tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

#### List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: March 27, 2026.

**Cheryl Newton,**

*Acting Regional Administrator, Region 5.*

[FR Doc. 2026-06940 Filed 4-9-26; 8:45 am]

**BILLING CODE 6560-50-P**

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Parts 52 and 81

[EPA-R05-OAR-2025-3654; FRL-13297-01-R5]

#### Air Plan Approval; Ohio; Redesignation of the Cleveland, OH Area to Attainment of the 2015 Ozone Standards

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to act in accordance with a request from the Ohio Environmental Protection Agency (Ohio EPA) to redesignate the Cleveland, Ohio area to attainment for the 2015 ozone National Ambient Air Quality Standards (NAAQS) because the request meets the statutory requirements for redesignation under the Clean Air Act (CAA). The Cleveland area includes Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit Counties. Ohio EPA submitted this request on December 8, 2025. The EPA is also proposing to approve, as a revision to the Ohio State Implementation Plan (SIP), the State's plan for maintaining the 2015 ozone NAAQS through 2038 in the Cleveland area. The EPA is also initiating the adequacy process and proposing to approve Ohio's 2032 and 2038 volatile organic compound (VOC) and oxides of nitrogen (NO<sub>x</sub>) motor vehicle emissions budgets (budgets) for the Cleveland area. Additionally, the EPA is proposing to adjust the deadline for Ohio to submit Serious SIP revisions for the Cleveland area. Finally, the EPA is proposing to approve the Enhanced motor vehicle inspection and maintenance (I/M) program certification, clean fuel vehicle program (CFVP) certification, and enhanced monitoring plan (EMP) certification SIP revisions submitted by Ohio EPA on December 19, 2025, and January 12, 2026, pursuant to section 110 and part D of the CAA, because they satisfy Serious SIP requirements for the Cleveland area under the 2015 ozone NAAQS.

**DATES:** Comments must be received on or before May 11, 2026.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R05-OAR-2025-3654 at <https://www.regulations.gov>, or via email to [arra.sarah@epa.gov](mailto:arra.sarah@epa.gov). For comments submitted at [Regulations.gov](https://www.regulations.gov), follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from the

docket. The EPA may publish any comment received to its public docket. Do not submit to the EPA's docket at <https://www.regulations.gov> any information you consider to be Confidential Business Information (CBI), Proprietary Business Information (PBI), or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.* on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI, PBI, or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

#### FOR FURTHER INFORMATION CONTACT:

Cecilia Magos, Air and Radiation Division (AR18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, telephone number: (312) 886-7336, email address: [magos.cecilia@epa.gov](mailto:magos.cecilia@epa.gov).

#### SUPPLEMENTARY INFORMATION:

Throughout this document whenever "we," "us," or "our" is used, we mean the EPA. This supplementary information section is arranged as follows:

- I. What is the EPA proposing?
- II. What is the background for these actions?
- III. What are the criteria for redesignation?
- IV. What is the EPA's analysis of Ohio's redesignation request?
- V. Has the State adopted approvable motor vehicle emission budgets?
- VI. Adjustment of SIP Submittal Deadlines
- VII. Enhanced I/M
- VIII. Clean Fuel Vehicle Program
- IX. Enhanced Monitoring Program
- X. What action is the EPA taking?
- XI. Statutory and Executive Order Reviews

#### I. What is the EPA proposing?

The EPA is proposing to take several related actions. The EPA proposes to determine that the Cleveland area has met the requirements for redesignation under section 107(d)(3)(E) of the CAA, and the EPA is thus proposing to change the legal designation of the Cleveland area from nonattainment to attainment for the 2015 ozone NAAQS. The EPA is also proposing to approve, as a revision to the Ohio SIP, the State's maintenance