



Common Sense Initiative

Mike DeWine, Governor
Jon Husted, Lt. Governor

Carrie Kuruc, Director

Business Impact Analysis

Agency, Board, or Commission Name: Ohio Environmental Protection Agency

Rule Contact Name and Contact Information:

Amanda Payton, Ohio EPA Agency Rules Coordinator, 614-644-3134

Regulation/Package Title (a general description of the rules' substantive content):

Rule Number(s): OAC Chapter 3745-110, Rules 01 to 05

Date of Submission for CSI Review: May 20, 2021

Public Comment Period End Date: June 22, 2021

Rule Type/Number of Rules:

New/___ rules

No Change/___ rules (FYR? ___)

Amended/ 5 rules (FYR? N)

Rescinded/___ rules (FYR? ___)

The Common Sense Initiative is established in R.C. 107.61 to eliminate excessive and duplicative rules and regulations that stand in the way of job creation. Under the Common Sense Initiative, agencies must balance the critical objectives of regulations that have an adverse impact on business with the costs of compliance by the regulated parties. Agencies should promote transparency, responsiveness, predictability, and flexibility while developing regulations that are fair and easy to follow. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

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Reason for Submission

1. **R.C. 106.03 and 106.031 require agencies, when reviewing a rule, to determine whether the rule has an adverse impact on businesses as defined by R.C. 107.52. If the agency determines that it does, it must complete a business impact analysis and submit the rule for CSI review.**

Which adverse impact(s) to businesses has the agency determined the rule(s) create?

The rule(s):

- a. ☒ **Requires a license, permit, or any other prior authorization to engage in or operate a line of business.**
- b. ☐ **Imposes a criminal penalty, a civil penalty, or another sanction, or creates a cause of action for failure to comply with its terms.**
- c. ☒ **Requires specific expenditures or the report of information as a condition of compliance.**
- d. ☒ **Is likely to directly reduce the revenue or increase the expenses of the lines of business to which it will apply or applies.**

Regulatory Intent

2. **Please briefly describe the draft regulation in plain language.**

Please include the key provisions of the regulation as well as any proposed amendments.

Ohio Administrative Code (OAC) Chapter 3745-110 establishes requirements for emissions of nitrogen oxides (NOx) from very large, large, mid-size, and small boilers, stationary combustion turbines, stationary internal combustion engines, or reheat furnaces as defined in OAC rule 3745-110-01, or miscellaneous sources located at facilities that emit or have the potential to emit a total of more than one hundred tons per year of NOx emissions from all sources at that facility. NOx is a precursor compound which, along with volatile organic compounds (VOCs), can form ozone. Ozone is one of the six criteria pollutants for which a National Ambient Air Quality Standard (NAAQS) has been established under the Clean Air Act (CAA).

Ohio EPA has drafted revisions to the rules in OAC chapter 3745-110 to adopt mandatory Reasonably Available Control Technology (RACT) requirements for the Cincinnati and Cleveland 2015 ozone nonattainment areas. The Cleveland (Cuyahoga, Geauga, Lake, Lorain, Medina, Portage and Summit counties) and Cincinnati (Butler, Clermont, Hamilton and Warren counties) nonattainment areas are currently classified as marginal nonattainment for

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the 2015 ozone standard. The areas are required to meet the ozone standard by August 3, 2021. This determination is based on ozone monitoring data collected during the 2018-2020 ozone monitoring seasons, which extend from March 1 to October 31 each year.

Based on the monitoring data, the Cleveland and Cincinnati nonattainment areas will fail to meet the ozone standard during the 2018-2020 ozone monitoring seasons as required and Ohio EPA anticipates that the areas will be reclassified to moderate nonattainment by U.S. EPA in accordance with the CAA. Reclassification to moderate nonattainment triggers additional CAA requirements, including NOx RACT requirements.

The draft amendments extend existing requirements for NOx RACT to the Cincinnati ozone nonattainment area and update the presumptive NOx RACT emissions limitations and applicability criteria based on an updated review of the pollution control technology that is currently reasonably available and both technologically and economically feasible.

- 3. Please list the Ohio statute(s) that authorize the agency, board or commission to adopt the rule(s) and the statute(s) that amplify that authority.**

Rule Number	Authorizing Statute	Proposed Action
3745-110-01	3704.03(E)	Amended
3745-110-02	3704.03(E)	Amended
3745-110-03	3704.03(E)	Amended
3745-110-04	3704.03(E)	Amended
3745-110-05	3704.03(E)	Amended

- 4. Does the regulation implement a federal requirement? Is the proposed regulation being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal law or to participate in a federal program?**

If yes, please briefly explain the source and substance of the federal requirement.

Section 110 of the CAA requires all states to develop a plan for attaining and maintaining the NAAQS. The rules in this chapter are intended to assist Ohio in attaining and maintaining the NAAQS for ozone. NOx is a precursor to ozone and can be used to control ozone levels.

- 5. If the regulation includes provisions not specifically required by the federal government, please explain the rationale for exceeding the federal requirement.**

The rules in this chapter do not exceed any federal requirements. The federal requirement which the rules in this chapter were designed to fulfill is the attainment and maintenance of the ozone NAAQS. The rules in this chapter were initially based on rules developed for use in New York state, however, Ohio's rules are not as stringent as those in New York. New York's rules call for much more expensive and complex, post-combustion controls, whereas Ohio's

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rules were designed to favor more cost-effective combustion controls. The draft amendments in this rulemaking are consistent with rules established in nearby states, including Wisconsin and Illinois.

6. What is the public purpose for this regulation (i.e., why does the Agency feel that there needs to be any regulation in this area at all)?

The rules in OAC Chapter 3745-110 serve as part of Ohio's strategy for the attainment and maintenance of the ozone NAAQS. The public purpose of these rules is to assist in the attainment of the ozone NAAQS. Attainment of the NAAQS for ozone is mandated by the CAA and enforced by the U.S. EPA. If a state does not achieve attainment or maintain attainment within a certain mandated timeframe, U.S. EPA can begin a sanctions clock which can lead to, among other things, loss of federal highway funds in non-attaining areas.

7. How will the Agency measure the success of this regulation in terms of outputs and/or outcomes?

Ohio EPA measures the success of the rules in this chapter through the fact that ozone pollution in Ohio has been on the steady decline since the first of the rules in this chapter were promulgated in 2007. The fact that Ohio is now attaining and maintaining the 2008 ozone NAAQS is, in part, a measure of the success these rules and Ohio's strategy for attaining the NAAQS in general. In 2015, a new more stringent NAAQS for ozone went into effect for which the Cleveland and Cincinnati areas were designated nonattainment. These rules will be necessary in order to aid these areas in attaining the 2015 ozone NAAQS.

Additionally, the requirements in this chapter are utilized in environment permits issued to industry throughout the state. These permits identify the applicable air pollution control rules and regulations under which the source must operate and establishes monitoring, record keeping, testing and reporting requirements by which the sources can demonstrate compliance with the rules and regulations. Ohio EPA considers the rules a success when a source is issued a permit and can, thereby, commence operations in compliance with the applicable air pollution rules and regulations, including the rules and regulations in this chapter.

8. Are any of the proposed rules contained in this rule package being submitted pursuant to R.C. 101.352, 101.353, 106.032, 121.93, or 121.931?

If yes, please specify the rule number(s), the specific R.C. section requiring this submission, and a detailed explanation.

None of these rules are being proposed under these statutes.

Development of the Regulation

9. Please list the stakeholders included by the Agency in the development or initial review of the draft regulation.

If applicable, please include the date and medium by which the stakeholders were initially contacted.

Ohio EPA established a 30-day early stakeholder comment period and requested comments from potentially affected parties. The comment period ended as of February 3, 2021. Ohio EPA Division of Air Pollution Control (DAPC) sent notice of our request for comments electronically to the 3,000+ members of Ohio EPA's electronic Interested Parties list for DAPC rulemaking. DAPC also posted the notice on our website and placed the notice in the Director's Weekly Review publication.

10. What input was provided by the stakeholders, and how did that input affect the draft regulation being proposed by the Agency?

Ohio EPA held a 30-day early stakeholder outreach comment period ending on February 3, 2021 regarding Ohio EPA's NO_x RACT rules. Four comments were received and reviewed. Based on these comments, revisions were made to the rules as deemed necessary. Below is a summary of the comments and a response to the comments by Ohio EPA. The name of the commenter follows the comment in parentheses.

Comment 1:

The Avon Lake Generating Station ("Avon") appreciates the opportunity to provide comments in response to the Early Stakeholder Outreach ("ESO") for Ohio Administrative Code ("OAC") Chapter 3745-110 revisions published by Ohio EPA on December 11, 2020. Avon is located in Lorain County and will be evaluated as part of the Agency's control measures for the Cleveland Ozone Nonattainment area.

- Ohio EPA should avoid a "one size fits all" approach to emissions control requirements for the two distinct ozone nonattainment areas affected by the proposed rules. By the agency's own admission, coal-fired EGUs are not a significant contributor to the nonattainment problem in the Cleveland area.
- Realizing that RACT for NO_x and VOC is a statutory requirement, Ohio EPA should avoid setting prescriptive requirements and allow the affected sources in the Cleveland area to propose RACT as appropriate for Coal-fired Electric Generating Units ("EGUs").
- Ohio's final determination of NO_x RACT should consider not only cost of control but the incremental impact that the reductions would have on predicted air quality improvements towards achieving the ozone attainment goal.
- Control strategies should also consider electrical supply reliability concerns and the need to maintain fuel diversity in the wholesale power generation supply. The status of Avon's lone remaining coal -fired unit is that of a low capacity factor peaking resource only called upon during periods of high system demand. Additionally, this

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peaking service is biased towards operation in the winter months when ozone levels are not an issue.

[Dan Rogatto, Avon Lake Generating Station]

Response 1:

In order for Ohio EPA's NOx RACT program to be approved by U.S. EPA, NOx RACT will need to be established for all major sources in the nonattainment area, including EGUs such as Avon Lake. Facilities which cannot meet the applicable presumptive NOx RACT limits in OAC rule 3745-110-03 may submit a NOx RACT study which allows them to determine an appropriate site-specific emissions limitation based on an analysis of technically and economically feasible control strategies.

Comment 2:

Carmeuse Lime, Inc.'s Grand River Operation is subject to a NOx limitation in the existing NOx RACT rule. See OAC 3745-110-03(S). This limit was established through the development of a site-specific RACT analysis. There have been no significant changes to the Grand River operation or in NOx control technologies that would significantly change the results of the prior RACT analysis. Therefore, the identified control technology and corresponding limit continue to represent RACT for this facility.

In addition, based upon the location of the non-compliant monitors, it does not appear that the Grand River operation is contributing to the non-compliance in the area.

[Christopher Martin, Carmeuse Americas]

Response 2:

In order for Ohio EPA's NOx RACT program to be approved by U.S. EPA, previously established site-specific RACT must be re-assessed to ensure it remains appropriate. Therefore, the draft rule amendments require facilities in the nonattainment areas that have existing site-specific RACT (such as Carmeuse – Grand River) to submit an updated RACT study within one year of the effective date of the rule. Should the updated RACT study demonstrate the existing limits are still representative of RACT, revisions to the existing limits will not be necessary.

Comment 3:

Thank you for the opportunity to be involved as a Stakeholder in potential modifications to the existing NOx RACT rules. Solar Turbines (Solar) is specifically interested in any proposed changes to Sections 3745-110-03(E)(1) and (2).

Solar gets involved with state agencies and EPA in such rule-making revision efforts to ensure that any proposed changes are in-line with the technical capabilities of combustion turbines. We have found over the years that a proactive discussion on the technologies that are available

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to existing equipment in the aftermarket (vs. what is available on new equipment) is a valuable discussion to have early in the process. In RACT rule developments, Solar also works with trade organizations that are made up of our customer base, such as the Interstate Natural Gas Association of America (INGAA), and other turbine original equipment manufacturers (OEMs), such as the Gas Turbine Association (GTA), to ensure that all facets of a proposed rule meets the needs of the agency under the principles of RACT and is in-line with the capabilities of the equipment across all OEMs.

We look forward to working with the Ohio EPA on the RACT revisions.

[Leslie Witherspoon, Solar Turbines]

Response 3:

Thank you for sharing your experience and expertise on this issue. Ohio EPA consulted with Solar Turbines, among others, in developing in the draft amendments.

Comment 4:

SWOAQA had a situation arise in 2018 with a regulated source (large boiler) that was subject to continuous NOx emissions monitoring under both the NSPS Subpart Db and OAC 3745-110. The regulated source wanted to install and certify a predictive emissions monitoring system (PEMS) to replace its continuous emissions monitoring system (CEMS). Under the NSPS rules, there is a provision to petition for an alternative monitoring method per 40 CFR 60.13(i). The source submitted a petition and was granted permission to install a PEMS for NOx compliance for the NSPS Subpart Db. However, under OAC rules 3745-110-03(H) and 3745-110-05, including the proposed amendments, there is no provision for seeking an alternative and/or to employ a PEMS in lieu of a CEMS. Therefore, this regulated source currently has a permit that specifies use of their PEMS for NOx compliance with the NSPS Subpart Db lb/MMBtu standard and performance of routine stack testing to demonstrate compliance with the applicable lb/MMBtu standard in OAC Chapter 3745-110. Since federal rules allow for petitioning/PEMS, and many other sources in Ohio have moved to using PEMS in lieu of CEMS, we would ask Ohio EPA to consider adding language in OAC rule 3745-110-03(H) and OAC rule 3745-110-05 to allow for petitioning for an alternative compliance monitoring method and/or use of a certified PEMS.

[Bonnie Pray, Southwest Ohio Air Quality Agency]

Response 4:

As requested, DAPC has added draft provisions to allow use of predictive emission monitoring system (PEMS) as an alternate compliance method upon approval by Ohio EPA.

**11. What scientific data was used to develop the rule or the measurable outcomes of the rule?
How does this data support the regulation being proposed?**

The rules in this chapter were initially based on rules developed for use in the state of New York, and on a model rule developed by the Ozone Transport Commission. Ultimately, the NOx emissions limitations in Ohio's rules, while similar to the New York and OTC model rule, are less stringent than those rules on the basis that simpler and more cost-effective combustion controls can achieve the presumptive NOx emissions limitation specified in Ohio's rules while still providing adequate reductions.

The draft amendments update the presumptive NOx RACT emissions limitations and applicability criteria based on an updated review of the pollution control technology that is currently reasonably available and both technologically and economically feasible. This review included a review of U.S. EPA's RACT/BACT Clearinghouse, consultation with industry experts, and benchmarking with NOx RACT provisions established in nearby states, including Wisconsin and Illinois.

12. What alternative regulations (or specific provisions within the regulation) did the Agency consider, and why did it determine that these alternatives were not appropriate? If none, why didn't the Agency consider regulatory alternatives?

The rules in this chapter are a single part of a larger plan for attaining and maintaining the ozone NAAQS in Ohio. The plan for ozone includes rules in several chapter of the Administrative Code including, among others, OAC Chapters 3745-14, 3745-15, 3745-16, 3745-17, 3745-18, 3745-19, 3745-21, 3745-23, 3745-25, 3745-26, 3745-31, and 3745-112.

**13. Did the Agency specifically consider a performance-based regulation? Please explain.
*Performance-based regulations define the required outcome, but don't dictate the process the regulated stakeholders must use to achieve compliance.***

The rules in this chapter are performance-based regulations. The rules set emissions limitations which must be met and allow regulated sources to determine the methods by which they will meet the emissions limitations.

The rules also allow for the preparation of a NOx RACT study. This study is performed by facilities which cannot meet the prescribed emissions limitations or for which there is not a predefined emissions limitation. The study allows facilities to determine an appropriate emissions limitation based on technical and economic feasibility of control strategies.

14. What measures did the Agency take to ensure that this regulation does not duplicate an existing Ohio regulation?

The Ohio EPA is the only agency having jurisdiction over the control of air pollution, and is specifically directed, under Section 3704.03 of the Revised Code to develop rules for the control of emissions of air pollutants. The rules in this chapter are unique within the Ohio EPA and do not duplicate the rules of this or any other agency.

15. Please describe the Agency's plan for implementation of the regulation, including any measures to ensure that the regulation is applied consistently and predictably for the regulated community.

These rules have been in effect since December 22, 2007 and the regulated community has been required to comply with them since January 1, 2009. Ohio EPA is currently and will be working with facilities as the review of their permits comes up to ensure that their permits reflect the appropriate emissions limitations, and that the facilities are applying these rules and complying with the appropriate emissions limitations.

Adverse Impact to Business

16. Provide a summary of the estimated cost of compliance with the rule. Specifically, please do the following:

- a. Identify the scope of the impacted business community; and**
- b. Identify the nature of all adverse impact (e.g., fees, fines, employer time for compliance,); and**
- c. Quantify the expected adverse impact from the regulation.**

The adverse impact can be quantified in terms of dollars, hours to comply, or other factors; and may be estimated for the entire regulated population or for a "representative business." Please include the source for your information/estimated impact.

The rules in this chapter are currently applicable to very large, large, mid-size, and small boilers, stationary combustion turbines, stationary internal combustion engines, or reheat furnaces as defined in OAC rule 3745-110-01, and miscellaneous NOx emission sources located at facilities that emit or have the potential to emit a total of more than one hundred tons per year of NOx emissions from all sources at that facility; and the facility is located in Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, or Summit County and new or modified units statewide. The draft amendments to these rules extend these requirements to facilities located in Butler, Clermont, Hamilton and Warren Counties and also extends requirements to electrical generating units (EGUs) and other large non-EGUs.

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Typical facilities at which these rules would be applicable are facilities that burn fossil fuels in a boiler such as mills, steam generating facilities, large stationary engines and combustion turbines used in a variety of industrial applications including the gas and oil industry. These rules can also be applicable at facilities where nitrogen oxides are a byproduct of the manufacturing process such as calcining facilities. Under the draft amendments to these rules EGUs and certain large non-EGUs that were previously exempted would also be subject to this chapter. These exemptions must be eliminated for the NOx RACT program to be approvable by U.S. EPA.

The cost of compliance with this chapter comes from the installation of control equipment and reporting for facilities which are required to meet the NOx emission limitations outlined in OAC rule 3745-110-03. Facilities may also choose to perform a NOx RACT Study under paragraph (I) of rule 3745-110-03 if the facility is not subject to the emissions limitations specified in paragraphs (A) to (F) of rule 3745-110-03, or if the facility is subject to the emissions limitations specified in paragraphs (A) to (F) of rule 3745-110-03 but the owner or operator claims that the applicable emissions limitations is technically infeasible and/or economically unreasonable (i.e. not cost-effective) to achieve.

Ohio EPA has determined that the upper limit for a cost-effective control technology under this chapter is approximately \$5,000 per ton of pollutant controlled. It has been Ohio EPA's experience that controls for facilities to comply with these regulations can be installed for between \$1,200 and \$2,500 per ton of pollutant controlled. The cost for a typical control technology, such as low NOx burners is approximately \$500,000 to \$2 million per facility depending on the size and number of emission units to be retrofitted at the facility.

In comparison, the cost for post-combustion controls, such as those required in the state of New York's rules, is typically greater than \$5,000 per ton of pollutant controlled. This exceeds Ohio's cost effectiveness limit; therefore, Ohio is not requiring facilities to utilize a post-combustion control strategy.

A facility may exercise the option of preparing a NOx RACT study to determine the technical and economic feasibility of installing NOx emission controls. The draft amendments to this rule also require facilities in the nonattainment areas that have existing site-specific RACT established to submit an updated RACT study. In general, a RACT study would typically cost \$5,000 to \$30,000 depending upon the size and complexity of the facility, the number of sources for which RACT must be determined, the sizes of the sources (in terms of uncontrolled NOx emissions), and the number of various control techniques for which cost estimates must be prepared.

17. Why did the Agency determine that the regulatory intent justifies the adverse impact to the regulated business community?

As mentioned above, these rules are a part of Ohio's strategies to attain and maintain the ozone NAAQS. Attaining the NAAQS is required under the CAA and can lead to potential fiscal sanctions if the NAAQS is not attained.

Additionally, reducing emissions benefits the state by providing a cost savings and economic benefit to the citizens through reduced pollution. Not only does reducing pollution provide for better enjoyment of the state's resources through cleaner air but also reduces property damage caused by pollution; reduces illnesses and reduces health care costs. These results, while impossible to quantify, are indeed much greater than the costs of compliance with these regulations.

Regulatory Flexibility

18. Does the regulation provide any exemptions or alternative means of compliance for small businesses? Please explain.

Yes. Paragraph (J) of OAC rule 3745-110-03 allows facilities to perform a NOx RACT study if there is not a pre-determined NOx emissions limitation for the facility type, or if the owner or operator claims that the applicable NOx emissions limitation is technically infeasible and/or economically unreasonable (i.e. not cost-effective) to achieve for their facility.

A list of applicable exemptions for affected facilities is included in paragraph (K) of OAC rule 3745-110-03.

19. How will the agency apply Ohio Revised Code section 119.14 (waiver of fines and penalties for paperwork violations and first-time offenders) into implementation of the regulation?

The Ohio EPA uses enforcement discretion regarding fines, and penalties for facilities committing a first-time violation are typically waived.

20. What resources are available to assist small businesses with compliance of the regulation?

The following resources are available:

- Ohio EPA's Office of Compliance Assistance and Pollution Prevention (OCAPP) is a non-regulatory program that provides information and resources to help small businesses comply with environmental regulations. OCAPP also helps customers identify and implement pollution prevention measures that can save money, increase business performance and benefit the environment. Services of the office include a toll-free hotline, on-site compliance and pollution prevention assessments, workshops/training, plain-

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English publications library and assistance in completing permit application forms. Additional information is available at <http://www.epa.ohio.gov/ocapp>.

- Ohio EPA also has a permit assistance web page (http://www.epa.ohio.gov/dir/permit_assistance.aspx) that contains links to several items to help businesses navigate the permit process, including the Permit Wizard, Answer Place, Ohio EPA's Guide to Environmental Permitting and eBusiness Center.
- Ohio EPA maintains the Compliance Assistance Hotline 800-329-7518, weekdays from 8:00 a.m. to 5:00 p.m.
- US. EPA Small Business Gateway also has information on environmental regulations for small businesses available at <http://www.epa.gov/smallbusiness/> or by calling 202 566-2075 and a Small Business Ombudsman Hotline 800-368-5888.
- Ohio EPA's Division of Air Pollution Control (DAPC) maintains a State Implementation Plan (SIP) Development section through which SIP related rulemaking is performed. DAPC rule writer Alan Harness, the primary contact for the NOx RACT Rules in OAC Chapter 3745-110, is available to answer questions. He can be reached by calling 614-644-4838 or by e-mail at alan.hararness@epa.state.oh.us.

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