Common Sense Initiative

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Business Impact Analysis

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

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

OAC Chapter 3745-103, Acid Rain Rules, Early 5-Year Review

Rule Number(s): OAC Rules 3745-103-01 to 3745-103-10, 3745-103-11 to 3745-103-63, 3745-103-65 to 3745-103-66

Date of Submission for CSI Review: May 12, 2025

Public Comment Period End Date: June 12, 2025

Rule Type/Number of Rules:

New/___ rules
No Change/__8__ rules (FYR? _Y_)
Amended/__51__ rules (FYR? _Y_)
Rescinded/____ rules (FYR?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.

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.

   The rules in Ohio Administrative Code (OAC) Chapter 3745-103 establish requirements pertaining to the Acid Rain Program for limitation of emissions of sulfur dioxide (SO_2) and nitrogen oxides (NOx) from fossil-fuel fired electrical generating units. The rules also contain the requirements for applications for and issuing acid rain permits in accordance with 40 CFR Part 76 and Title IV of the Clean Air Act.

   Ohio EPA is making various minor changes to several of the rules in this chapter (see answer #3 below for the list) to correct typos, provide clarification, remove unnecessary restriction language, and update the rule language in this chapter to meet legislative service commission (LSC) style and formatting guidelines. These changes are minor in nature and do not affect the scope or intent of the rules.

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	Rule Amplifies	Proposed Action
OAC rules 3745-103-11, -16, -23, -25, -29, -38, -41, -56.	3704.03(E)	3704.03(A), 3704 (E)	No-Change

OAC rules 3745-103-(01-09), -(13-15), -(17-22), -24, -(26-28), -(31-37), -39, -(42-45), -(47-48), -(50-53), -55, -(57-63), (-65-66)	3704.03(E)	3704.03(A), 3704 (E)	Amend

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.

OAC Chapter 3745-103 enables the state to administer the requirements of certain sections of U.S. EPA's Acid Rain Program, which was established under Title IV of the 1990 Clean Air Act (CAA). The federal Acid Rain Program regulations are contained in 40 CFR Parts 72 through 78.

5. **If the regulation implements a federal requirement, but 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 federal requirements.

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 public purpose of these rules is to protect public health and welfare by addressing acid rain. The rules also assist in the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS).

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 SO2 and NOx pollution in Ohio has been on the steady decline since the first of the rules in this chapter were promulgated in 1997.

Additionally, the requirements in this chapter are utilized in environmental permits issued to sources 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 the proposed rules contained in this rule package are being submitted pursuant to R.C. 101.352, 101.353, 106.032, 121.93, or 121.931.

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 an initial 30-day early stakeholder outreach period ending February 3, 2025. Ohio EPA Division of Air Pollution Control (DAPC) sent the notices of our request for comments electronically to the 1,300+ 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?

No comments were received during the early stakeholder outreach period.

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 the chapter are based on federal rule language based on research and investigation performed by U.S. EPA. The states, including the state of Ohio, are required by the CAA to adopt Acid Rain Program rules at least as stringent as the federal requirements.

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?
Alternative regulations may include performance-based regulations, which define the required outcome, but do not dictate the process the regulated stakeholders must use to comply.

There are no alternatives available. The states, including the state of Ohio, are required to adopt Acid Rain Program rules at least equivalent to the federal requirements. Ohio's Acid Rain Program rules are equivalent to, but do not exceed, the federal requirements.

13. 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.

14. 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.

Ohio EPA's Acid Rain rules have been in place since the late 1990s. The provisions in this chapter have been and still are incorporated into Acid Rain permits issued under this chapter.

Adverse Impact to Business

15. Provide a summary of the estimated cost of compliance with the rule(s). Specifically, please do the following:

a. Identify the scope of the impacted business community, and

The Acid Rain program applies to utility generating units operating in Ohio.

b. Quantify and identify the nature of all adverse impact (e.g., fees, fines, employer time for compliance, etc.).

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.

At this time, Ohio EPA is making only minor amendments which do not affect the scope or intent of the rules. No cost has been determined to be associated with any of these changes.

Chapter 3745-103 has been in the OAC since 1997 and facilities subject to these rules have long since installed controls and continue to operate them under the terms of their Acid Rain permits. Please see the attached fiscal analysis for information regarding the price of SO2 and NOx allowances. Please see the attached fiscal analysis.

16. Are there any proposed changes to the rules that will reduce a regulatory burden imposed on the business community? Please identify. ***(Reductions in regulatory burden may include streamlining reporting processes, simplifying rules to improve readability, eliminating requirements, reducing compliance time or fees, or other related factors).***

Yes. Rule language is simplified to improve readability and streamline reporting processes.

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

The state of Ohio is required by the CAA to enact rules to implement the Acid Rain Program.

Regulatory Flexibility

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

These rules do not contain any exemptions or alternate means of compliance for affected sources. By federal rule, sources that are subject to the Acid Rain rules must meet their NOx emissions limit and SO2 emissions cap established under the rules. This can be done through the installation and operation of emission controls, system-wide averaging for NOx, or through the purchase of additional allowances for SO2. However, the facilities must have adequate SO2 allowances at the end of the season to offset their emissions and achieve their cap requirements.

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?

Ohio EPA offers the following resources:

- Ohio EPA offers nonregulatory assistance that provides information and resources to help small businesses comply with environmental regulations. It also helps customers identify and implement pollution prevention measures that can save money, increase business performance and benefit the environment. Services include on-site compliance and pollution prevention assessments, workshops/training, plain-English publications library and assistance in completing permit application forms.
- Ohio EPA also has a permit assistance web page https://epa.ohio.gov/stay-compliant/get-help/permit-assistance 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 1-800-329-7518, weekdays from 8:00 a.m. to 5:00 p.m.
- U.S. EPA Small Business Gateway also has information on environmental regulations for small businesses available at http://www.epa.gov/smallbusiness/ and a Small Business Ombudsman Hotline 1-800-368-5883.

Fiscal Analysis
Chapter 3745-103 of the Administrative Code
Acid Rain Program

Background

Title IV of the 1990 amendments to the federal Clean Air Act created the Acid Rain Program for the purpose of reducing the harmful emissions of sulfur dioxide (SO_2) and nitrogen oxides (NOx) emitted by fossil-fuel fired electrical generating stations. The program consisted of two phases, with the first phase beginning in 1995 and affecting 445 of the largest generating units nationwide, and the second phase beginning in 2000 and affecting approximately 1500 additional units. Both phases placed a cap on the amount of SO_2 that may be emitted nationwide by the affected units, and assigned allowances to the individual units, expressed as tons of SO_2 per given calendar year. The operators of those units may choose to comply with those allowances by switching to cleaner fuel, by installing control equipment to remove SO_2 from their stack gas, or by purchase of allowances on the marketplace. Additionally under Phase 2, limits were placed on NOx emissions from most of the affected units, expressed as pounds of NOx per unit of energy content of the fuel. The utilities are allowed to perform system-wide averaging of the NOx limits, so that undercontrol at one unit may be compensated for by overcontrol at a different unit. All these acid rain limits on SO_2 and NOx are in addition to, and do not supersede, any other applicable emission limits designed to maintain ambient air quality standards and prevent significant deterioration.

Title IV was written with the expectation that most states would choose to embody most of the requirements of the Acid Rain program in their own rules, and would request authority to administer portions of the program at the state level. The USEPA decided, however, that certain functions should be retained at their level, and should not be delegated to the states. This includes book-keeping of the SO_2 allowance accounts, receipt and review of the stack emission reports submitted electronically by the affected utilities, and specification of performance and quality-assurance of the in-stack continuous emission monitors that are essential to establish compliance with SO_2 and NOx limits. What remains to the states primarily is the issuance of five-year acid rain permits for each affected unit, listing the SO_2 allowance for each year of the permit, any NOx limit applicable under the program, and the appropriate standard language. Ohio had its acid rain program approved by the USEPA (67 FR 7687, February 20, 2002), and has issued acid rain permits to approximately 175 individual boilers or turbines under that program.

Fiscal Analysis

At this time, Ohio EPA is making only minor amendments to 51 rules (OAC rules 3745-103-(01-09), -(13-15), -(17-22), -24, -(26-28), -(31-37), -39, -(42-45), -(47-48), -(50-53), -55, -(57-63), (-65-66)) to ensure equivalency with the federal equivalent, correct cross-references and typographical errors, and conform with agency formatting standards. These changes are minor in nature, and do not affect the scope or intent of the rules. No cost has been determined to be associated with any of these changes.

Accordingly, this fiscal analysis addresses the cost of the program already existing in Ohio, as

prescribed by the rules already effective in the Administrative Code. Substantial portions of the federal program (such as those dealing with allowance bookkeeping and emissions monitoring) have not been delegated to Ohio, but since this chapter requires affected sources to comply with all applicable federal acid rain requirements, the costs of the undelegated federal portions are included in this analysis.

The Acid Rain title has required utility generating units operating in Ohio to reduce their SO_2 emissions by about a million tons per year below their 1980 rate of two million tons per year, and NOx emissions by one-tenth million tons per year below their 1980 level of a half million tons per year. When this Ohio rule chapter was updated in 2006, the accompanying fiscal analysis cited market prices for SO_2 and NOx allowances in support of an estimate for the cost of implementing the Acid Rain title in Ohio. Based on allowance auction prices that had varied from about $200 to $700 per ton of SO_2 for the program to date, the statewide annualized capital and operating cost of fuel-switching and emissions-reduction technology was estimated at roughly a half billion dollars per year. NOx is not subject to trading under acid rain rules in the same way as SO_2, but allowances under the NOx budget trading program (OAC 3745-14) were valued at about $2700 per ton, which allowed acid rain NOx control in Ohio to be estimated at a quarter of a billion dollars per year. Since that time, other programs requiring control of utility emissions, such as the Clean Air Interstate Rule (CAIR) and Cross-State Air Pollution Rule (CSAPR), have gone into effect, giving rise to an abundance of marketable credits that can be used to satisfy acid rain requirements, and the auction prices of allowances have plummeted. In early 2011, SO_2 allowances were selling for only two to five dollars, and NOx allowances, for only $200. The most recent progress report available from U.S. EPA indicates that in 2014, SO_2 allowances were selling for less than $1, and NOx allowances averaged $50 between January and October 2014, with prices dropping even further to $10 after the October 2014 D.C. Circuit decision to lift the stay on CSAPR). It cannot be said that utilities are spending less on acid rain control than previously, however, without stating assumptions as to how costs should be apportioned among multiple regulatory programs.

Operators of affected units may choose any of four means, or a combination thereof, to stay within their SO_2 allocation. They may:

- Buy allowances at auction or private-party transaction. In 2014, those allowances were selling for less than $1 in the current year;

- Perform internal transfers of allowances in different accounts. This would allow overcontrol at one unit to offset undercontrol at another;

- Switch to coal with lower sulfur content, which they may find in Ohio or nearby states or in far-western localities such as the Powder River basin. This normally entails a higher delivered fuel cost, and may require modification to existing ash-handling and particulate-removal equipment, in order to accommodate different physical characteristics of the coal;

- Install control equipment to remove SO_2 from the exhaust stream prior to release from the stack. Typically, this equipment may consist of:

- Dry scrubbers in which an alkaline slurry is injected into the ductwork, and the dried particles bearing captured sulfur are collected by the particulate control equipment;
- Wet scrubbers, in which the exhaust stream passes through a fine spray of alkaline liquid, and the liquid is filtered and dewatered to remove the captured sulfur;

- Fluidized bed combustors (pressurized or not) in which a dry sorbent material containing calcium or sodium is in contact with the solid fuel in the combustion zone. This requires a complete replacement of the combustion unit, and is not a retrofit technology.

Costs associated with control equipment include raw materials (e.g. lime or limestone, soda ash), installation and maintenance of materials handling equipment, parasitic electric power losses, and cost of disposal (which may involve filling valleys with sludge the consistency of toothpaste).

Operators of units subject to an acid rain NOx limit have a similar range of options. They may:

- Do system-wide averaging of NOx emission rates (on a weighted pound per MMBtu basis) consistent with an approved averaging plan;

- Inject chemical reagents such as ammonia or urea (with or without the presence of a catalyst) into the exhaust stream in order to reduce the oxides of nitrogen to ordinary atmospheric nitrogen. This involves various equipment, maintenance, and raw material costs;

- Install low-NOx burners and/or perform various modifications to combustion conditions (such as exhaust-gas recirculation) to create lower peak flame temperatures and consequently less NOx formation. Costs associated with this approach include lower overall combustion efficiency, increased boiler corrosion, contamination of potentially-useful ash byproducts with unburned carbon, and increased carbon monoxide emission.

The annualized cost of SO_2 and NOx control for the purpose of acid rain compliance undergone by operators of individual generating units ranges from hundreds of thousands dollars per year for a small municipally-owned unit of 50 megawatts, up to several tens of million dollars per year for a large base-load utility boiler of 1300 megawatts.

In addition to the cost of reducing SO_2 and NOx emissions, operators of affected units have costs related to gathering and submittal of information. The largest of these are associated with installation and maintenance of the in-stack emission monitors required under 40 CFR Part 75 to verify compliance with the Acid Rain title. These include instruments to measure NOx, SO_2, carbon dioxide, and moisture, and the associated electronic data-processing equipment. Although Part 75 has not been delegated to the states, Ohio's rules require compliance with 40 CFR Part 75, and consequently the cost of monitoring in Ohio is included in this analysis. Inventories of the cost of gathering and submitting information under the acid rain title at the national level are

readily available, due to the federal requirement that the Office of Management and Budget (OMB) document the cost of the federal government's data-gathering activities. The following table is based on a 2006 OMB document, combined with Ohio EPA estimates of Ohio's share, computed by proration by a factor of 5.7%, representing an estimate of the fraction of sources in Ohio:

Annual Cost of Information Collection
To affected sources in the Acid Rain program

(Source: "Information Collection Request Renewal for the Acid Rain Program Under the Clean Air Act Amendments Title IV," April 4, 2006
USEPA Docket No. EPA-OAR-2005-0509 at www.regulations.gov)

ICRR Exhibit		**Nationwide Total**		**Under Ohio rules* (Estimated by Ohio EPA)**	
		Man-hours	**Dollars**	**Man-hours**	**Dollars**
1	Allowance transfers and deductions	5,885	$407,669	335	$23,237
5	Permitting	13,531	$1,011,726	771	$57,668
7	Emissions monitoring	1,950,143	$260,831,647	111,116	$14,867,404
9	Auctions	166.5	$13,177	9.5	$751
11	Opt-in permit applications	0	$0	0	$0
12	Opt-in annual compliance cert.	280	$17,970	0	$0
14	NOx permitting (renewals)	1,270	$87,800	73	$5,005
16	**Totals**	**1,971,275.5**	**$262,369,989**	**112,304**	**$14,954,065**

* Note: Ohio rules do not mirror the text of requirements for allowance transfers and deductions, auctions, and emissions monitoring in 40 CFR parts 72, 73, and 75, but the associated costs are borne by Ohio sources, and are included in this table.

Assuming an inflation rate of 63 percent between 2006 and 2025, the total estimated cost could be approximately 24 million dollars. However, the vast majority of these costs have already been paid throughout the last 30 years since the program has been in effect. Additionally, most businesses will have purchased air pollution control equipment in order to comply with other federal and state regulations, so the marginal cost for compliance with these rules is negligible.