

# CSI - Ohio

The Common Sense Initiative

## Business Impact Analysis

Agency Name: Ohio Environmental Protection Agency

Regulation/Package Title: OAC Chapter 3745-109: "Clean Air Interstate Rule (CAIR)"

Rule Number(s): OAC Chapter 3745-109, Rules 01 to 21

Date: February 22, 2013

**Rule Type:**

New

Amended

5-Year Review

Rescinded

The Common Sense Initiative was established by Executive Order 2011-01K and placed within the Office of the Lieutenant Governor. Under the CSI Initiative, agencies should balance the critical objectives of all regulations with the costs of compliance by the regulated parties. Agencies should promote transparency, consistency, predictability, and flexibility in regulatory activities. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

## **Regulatory Intent**

### **1. Please briefly describe the draft regulation in plain language.**

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

Rules 3745-109-01 to 3745-109-08 of the Administrative Code establish the CAIR NO<sub>x</sub> annual trading program in Ohio as a means of reducing NO<sub>x</sub> emissions in the state. Rules 3745-109-01 and 3745-109-09 to 3745-109-14 of the Administrative Code establish the CAIR SO<sub>2</sub> budget trading program in Ohio as a means to control fine particulate and sulfur dioxide emissions from CAIR units in the state. Rules 3745-109-01 and 3745-109-15 to 3745-109-21 of the Administrative Code establish the provisions and requirements to implement a CAIR NO<sub>x</sub> ozone season trading program in Ohio as a means of control and reductions of NO<sub>x</sub> emissions.

NO<sub>x</sub> is a precursor compound which, along with volatile organic compounds (VOCs) can form ozone. NO<sub>x</sub> and SO<sub>2</sub> are also precursor compounds for the formation of particulate matter. Ozone and particulate matter are two of the six criteria pollutants for which a National Ambient Air Quality Standard (NAAQS) has been established under the Clean Air Act. The CAIR program is part of Ohio's State Implementation Plan (SIP) for attaining and maintaining the NAAQS as required in Section 110 of the Clean Air Act.

These programs are applicable to large electrical generating units (EGUs) generating over 25 MWe for sale or smaller units which choose to opt-in to the programs through the opt-in provisions.

### **2. Please list the Ohio statute authorizing the Agency to adopt this regulation.**

<b>Rule Number</b>	<b>Authorizing Statute</b>	<b>Proposed Action</b>
3745-109-01	3704.03(E)	Amended
3745-109-02	3704.03(E)	Amended
3745-109-03	3704.03(E)	Amended
3745-109-04	3704.03(E)	Amended
3745-109-05	3704.03(E)	Amended
3745-109-06	3704.03(E)	No-Change
3745-109-07	3704.03(E)	Amended
3745-109-08	3704.03(E)	Amended
3745-109-09	3704.03(E)	Amended
3745-109-10	3704.03(E)	Amended
3745-109-11	3704.03(E)	Amended

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3745-109-12	3704.03(E)	Amended
3745-109-13	3704.03(E)	Amended
3745-109-14	3704.03(E)	Amended
3745-109-15	3704.03(E)	Amended
3745-109-16	3704.03(E)	Amended
3745-109-17	3704.03(E)	Amended
3745-109-18	3704.03(E)	Amended
3745-109-19	3704.03(E)	No-Change
3745-109-20	3704.03(E)	Amended
3745-109-21	3704.03(E)	Amended

**3. 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.*

U.S. EPA established the federal Clean Air Interstate Rule (CAIR) program on May 12, 2005 (70 FR 25162). U.S. EPA determined that 28 States and the District of Columbia contribute significantly to nonattainment and interfere with maintenance of the NAAQS for fine particles (PM2.5) and/or 8-hour ozone in downwind States in the eastern part of the country. As a result, U.S. EPA required those upwind States, Ohio being one of them, to revise their SIPs to include control measures that reduce emissions of SO<sub>2</sub>, which is a precursor to PM<sub>2.5</sub> formation, and/or NO<sub>x</sub>, which is a precursor to both ozone and PM<sub>2.5</sub> formation. The Ohio CAIR program rules in OAC Chapter 3745-109 were intended to address these requirements.

These rules were adopted as a part of Ohio's SIP on September 25, 2009 (74 FR 48857). Under Section 110 of the Clean Air Act, any control strategies that a state enacts to achieve attainment of a standard must remain in force to assist in maintaining the standard. Because these rules are part of Ohio's federally adopted control strategy to attain the standard, these rules must remain in effect to avoid sanctions for back-sliding.

**4. 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 were based on the federal model rule and do not exceed the federal model rule requirements with one exception. Ohio's rules contain provisions for new unit and energy efficient/renewable energy (EE/RE) project set asides. Qualifying new units and energy efficient projects can apply and receive NO<sub>x</sub> and SO<sub>2</sub> credits under these programs as if they were large EGU's. These provisions are intended encourage development of green, energy efficient projects in the state of Ohio. The total quantity of the set asides amounts to

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approximately 1% of the total statewide emissions budget every year. Any unused set-aside allowances are returned to the EGU's at the end of the year.

**5. 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 improve the health and welfare of the citizens of Ohio through the attainment and maintenance of the ozone and PM 2.5 NAAQS. These rules were adopted as a part of Ohio's SIP to attain and maintain the NAAQS on September 25, 2009 (74 FR 48857).

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

These rules were originally promulgated in 2007. Since 2007, the state of Ohio has attained the NAAQS for the 1997 8-hr ozone standard in all non-attainment areas statewide. The fact that the state is now attaining and maintaining the ozone NAAQS is, in part, a measure of the success of these rules and Ohio's strategy for attaining the NAAQS in general.

**Development of the Regulation**

**7. 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 March 30, 2012. Ohio EPA Division of Air Pollution Control (DAPC) sent notice of our request for comments electronically to the 1,263 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.

Ohio EPA received several responses to our request for input and made changes, where appropriate and necessary, based on the comments.

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

The primary topic of comment was related to the new unit set aside and EE/RE set aside programs. Owners of large EGUs commented that they would like to see Ohio EPA end the programs so that the allowances can be used by the EGU's. Ohio EPA declined to make the

change as the set aside programs affect such a small percentage of allowances and any unused set aside allowances are already returned to the EGUs at the end of the year.

The EGUs also pointed out several typographical errors in the rules that resulted in several minor changes for clarification and formatting reasons.

**9. 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 Ohio CAIR rules (OAC chapter 3745-109) are based on the federal CAIR model rule developed by U.S. EPA. U.S. EPA developed the rule based on research and investigation performed by their research branch in Triangle Park, North Carolina.

Technical support documentation for the CAIR program can be found on the internet at: <http://www.epa.gov/cair/technical.html#content>

U.S. EPA estimates that by 2015, the CAIR program will result in:

- \$85 to \$100 billion in annual health benefits, annually preventing 17,000 premature deaths, millions of lost work and school days, and tens of thousands of non-fatal heart attacks and hospital admissions.
- nearly \$2 billion in annual visibility benefits in southeastern national parks, such as Great Smoky and Shenandoah.
- significant regional reductions in sulfur and nitrogen deposition, reducing the number of acidic lakes and streams in the eastern U.S.

**10. 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?**

Ohio is required under federal mandate (70 FR 25162) to develop a program for controlling NOx and SO2 from large EGUs. Ohio's CAIR program is based on the federal CAIR model rule and has equivalent, but no more stringent requirements to the federal CAIR program. The necessity to meet the federal requirements meant that any alternate program developed by Ohio EPA would have had to be identical to the program developed using the federal model rule.

**11. 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 limits and emission budgets which must be met, and allow regulated sources to determine the methods by which they will meet the limits.

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

Ohio EPA reviewed our own regulations and performed a search of regulation from other agencies to determine if duplication was being made. To our knowledge, Ohio EPA is not duplicating another existing Ohio regulation.

**13. 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 September 27, 2007, the regulated community has been required to comply with them since January 1, 2009. Ohio EPA is also working with several new facilities due to open in 2013 and 2014 to ensure that they understand their responsibilities under the CAIR program and have the appropriate CAIR limits and terms in their air pollution control permits.

Ohio EPA is also working with existing facilities as the 5-year review of their permits comes up to ensure that their permits reflect the appropriate limits for the CAIR program, and that the facilities are applying these rules and complying with the appropriate emission limits.

## **Adverse Impact to Business**

**14. 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;**
- b. Identify the nature of the adverse impact (e.g., license 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 CAIR program applies to large EGUs producing more than 25 MWe for sale to the public, and other facilities that have joined the CAIR program through the opt-in option.

The largest financial impact associated with the CAIR program is the capital and operating costs associated with the control devices that a facility will install to make the necessary emission reductions to comply with the CAIR program.

When these rules were originally promulgated in 2007, U.S. EPA and various regional groups such as the Midwest Regional Planning Organization (MRPO) performed evaluations on cost-effective SO<sub>2</sub> and NO<sub>x</sub> emissions reductions based on controlling emissions from EGUs. U.S. EPA states in the final rule that the estimated marginal costs of reductions necessary to meet the 2015 emission caps will be approximately \$1000 per ton of SO<sub>2</sub> emissions reduced and \$1600 per ton of NO<sub>x</sub> emissions reduced. Average costs for meeting the 2015 emission caps were determined to be \$800 for SO<sub>2</sub> and \$700 for NO<sub>x</sub>. An estimated total cost in Ohio, based on these costs per ton, can be determined based on information from US EPA’s website for CAIR; by 2015 CAIR will help Ohio sources reduce emissions (from 2003 levels) of SO<sub>2</sub> by 968,000 tons/yr. or 82% and NO<sub>x</sub> by 272,000 tons/yr. or 77%. For a “typical” large EGU (500 MWe) this translates to approximately \$100 – 200 Million in capital costs and approximately \$6 to \$10 million in annual operating costs including the cost for recordkeeping and reporting. U.S. EPA estimated that the pass-through cost to the consumer raised electric rates approximately 6.6%. However, these costs are more than offset by the benefits discussed in question #9 above.

[Note: For more detail on this analysis, see Federal Register, Vol. 70, No. 91 dated May 12, 2005 pages 25201 to 25213 (Final CAIR rule) and the MRPO white paper, Electric generating units, dated January 14, 2005.]

## **Regulatory Flexibility**

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

The CAIR rules do not contain any exemptions or alternate means of compliance for affected sources. By federal rule, sources that are subject to the CAIR rules must meet their emissions cap established under the rules. This can be done through the installation and operation of emission controls, or through the purchase of additional allowances, however the facilities must have adequate allowances in their CAIR accounts at the end of the season to offset their emissions and achieve their cap requirements.

### **16. 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. The procedures specified in the agency's "Compliance Assurance through Enforcement" program are used to ensure implementation of the regulations.

### **17. 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-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](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.

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- US. 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 800-368-5883.
- 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 Chris Beekman, the primary contact for the CAIR Rules in OAC Chapter 3745-109, is available to answer questions. He can be reached by calling 614-644-3597 or by e-mail at [chris.beekman@epa.state.oh.us](mailto:chris.beekman@epa.state.oh.us).