

Rule Summary and Fiscal Analysis (Part A)**Ohio Environmental Protection Agency**

Agency Name

Division of Air Pollution Control (DAPC)

Division

Holly Kaloz

Contact

**50 West Town Street, Suite 700 PO Box 1049
Columbus OH 43216-1049**

Agency Mailing Address (Plus Zip)

614-644-2760

Phone

614-644-2909

Fax

holly.kaloz@epa.ohio.gov

Email

3745-103-60

Rule Number

AMENDMENT

TYPE of rule filing

Rule Title/Tag Line

Early election for group one, phase II boilers.**RULE SUMMARY**1. Is the rule being filed for five year review (FYR)? **Yes**2. Are you proposing this rule as a result of recent legislation? **No**3. Statute prescribing the procedure in accordance with the agency is required to adopt the rule: **119.03**4. Statute(s) authorizing agency to adopt the rule: **3704.03(E)**5. Statute(s) the rule, as filed, amplifies or implements: **3704.03(A), 3704.03(E)**

6. State the reason(s) for proposing (i.e., why are you filing,) this rule:

To comply with the requirements of ORC 106.03 (5-year review).

7. If the rule is an AMENDMENT, then summarize the changes and the content of the proposed rule; If the rule type is RESCISSION, NEW or NO CHANGE, then summarize the content of the rule:

The rule provides certain options relating to date of compliance with NOx

regulations for certain categories of boilers. Minor amendments are proposed to conform with agency formatting standards. These changes are minor in nature, and do not affect the scope or intent of the rules.

8. If the rule incorporates a text or other material by reference and the agency claims the incorporation by reference is exempt from compliance with sections 121.71 to 121.74 of the Revised Code because the text or other material is **generally available** to persons who reasonably can be expected to be affected by the rule, provide an explanation of how the text or other material is generally available to those persons:

This rule contains references to the Ohio Administrative Code (OAC). While copies of these rules are generally available to the public through libraries and on-line sources, including the Ohio EPA website, ORC 121.76(A) exempts such references from the provisions of ORC 121.71 through 121.75.

This rule also contains references to the Code of Federal Regulations (CFR). These rules are generally available through libraries, Ohio EPA and USEPA websites. CFR references have also been dated to reference the specific version of the rules. ORC 121.75(D) exempts such references from the requirements of ORC 121.71 through 121.74.

Referenced materials are cited, dated and availability noted in paragraph (C) of OAC rule 3745-103-01.

9. If the rule incorporates a text or other material by reference, and it was **infeasible** for the agency to file the text or other material electronically, provide an explanation of why filing the text or other material electronically was infeasible:

Not applicable.

10. If the rule is being **rescinded** and incorporates a text or other material by reference, and it was **infeasible** for the agency to file the text or other material, provide an explanation of why filing the text or other material was infeasible:

Not Applicable.

11. If **revising** or **refiling** this rule, identify changes made from the previously filed version of this rule; if none, please state so. If applicable, indicate each specific paragraph of the rule that has been modified:

Not Applicable.

12. Five Year Review (FYR) Date: **7/31/2017**

(If the rule is not exempt and you answered NO to question No. 1, provide the scheduled review date. If you answered YES to No. 1, the review date for this rule is the filing date.)

NOTE: If the rule is not exempt at the time of final filing, two dates are required: the current review date plus a date not to exceed 5 years from the effective date for Amended rules or a date not to exceed 5 years from the review date for No Change rules.

FISCAL ANALYSIS

13. Estimate the total amount by which *this proposed rule* would **increase / decrease** either **revenues / expenditures** for the agency during the current biennium (in dollars): Explain the net impact of the proposed changes to the budget of your agency/department.

This will have no impact on revenues or expenditures.

0.00

This will have no impact on revenues or expenditures.

14. Identify the appropriation (by line item etc.) that authorizes each expenditure necessitated by the proposed rule:

Not applicable.

15. Provide a summary of the estimated cost of compliance with the rule to all directly affected persons. When appropriate, please include the source for your information/estimated costs, e.g. industry, CFR, internal/agency:

There will be no cost of compliance associated with this rule amendment. Please see the attached fiscal analysis for detailed cost analysis of rules in Chapter 3745-103.

16. Does this rule have a fiscal effect on school districts, counties, townships, or municipal corporations? **No**

17. Does this rule deal with environmental protection or contain a component dealing with environmental protection as defined in R. C. 121.39? **Yes**

You must complete the Environmental rule Adoption/Amendment Form in order to comply with Am. Sub. 106 of the 121st General Assembly.

S.B. 2 (129th General Assembly) Questions

18. Has this rule been filed with the Common Sense Initiative Office pursuant to R.C. 121.82? **Yes**

19. Specific to this rule, answer the following:

A.) Does this rule require a license, permit, or any other prior authorization to engage in or operate a line of business? **No**

B.) Does this rule impose a criminal penalty, a civil penalty, or another sanction, or create a cause of action, for failure to comply with its terms? **No**

C.) Does this rule require specific expenditures or the report of information as a condition of compliance? **No**

Page E-1

Rule Number: 3745-103-60

Environmental Rule Adoption/Amendment Form

Pursuant to Am. Sub. H.B. 106 of the 121st General Assembly, prior to adopting a rule or an amendment to a rule dealing with environmental protection, or containing a component dealing with environmental protection, a state agency shall:

- (1) Consult with organizations that represent political subdivisions, environmental interests, business interests, and other persons affected by the proposed rule or amendment.
 - (2) Consider documentation relevant to the need for, the environmental benefits or consequences of, other benefits of, and the technological feasibility of the proposed rule or rule amendment.
 - (3) Specifically identify whether the proposed rule or rule amendment is being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal environmental law or to participate in a federal environmental program, whether the proposed rule or rule amendment is more stringent than its federal counterpart, and, if the proposed rule or rule amendment is more stringent, the rationale for not incorporating its federal counterpart.
 - (4) Include with the proposed rule or rule amendment and rule summary and fiscal analysis required to be filed with the Joint Committee on Agency Rule Review information relevant to the previously listed requirements.
-

- (A) Were organizations that represent political subdivisions, environmental interests, business interests, and other persons affected by the proposed rule or amendment consulted ? **Yes**

Please list each contact.

Ohio EPA invited interested parties to comment on this rule during the period of June 2, 2017 to July 11, 2017. No comments were received and the proposed rule is identical to the version circulated at that time. A list of interested parties will be furnished upon request.

- (B) Was documentation that is relevant to the need for, the environmental benefits or consequences of, other benefits of, and the technological feasibility of the proposed rule or amendment considered ? **Yes**

Please list the information provided and attach a copy of each piece of documentation to this form. (A SUMMARY OR INDEX MAY BE ATTACHED IN LIEU OF THE ACTUAL DOCUMENTATION.)

Clean Air Act

- (C) Is the proposed rule or rule amendment being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal environmental law or to participate in a federal environmental program ?

Yes

Is the proposed rule or rule amendment more stringent than its federal counterpart ? **No**

Not Applicable

- (D) If this is a rule amendment that is being adopted under a state statute that establishes standards with which the amendment is to comply, is the proposed rule amendment more stringent than the rule that it is proposing to amend? **No**

**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 (SO₂) and nitrogen oxides (NO_x) 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 SO₂ that may be emitted nationwide by the affected units, and assigned allowances to the individual units, expressed as tons of SO₂ 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 SO₂ from their stack gas, or by purchase of allowances on the marketplace. Additionally under Phase 2, limits were placed on NO_x emissions from most of the affected units, expressed as pounds of NO_x per unit of energy content of the fuel. The utilities are allowed to perform system-wide averaging of the NO_x limits, so that undercontrol at one unit may be compensated for by overcontrol at a different unit. All these acid rain limits on SO₂ and NO_x 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 SO₂ 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 SO₂ and NO_x limits. What remains to the states primarily is the issuance of five-year acid rain permits for each affected unit, listing the SO₂ allowance for each year of the permit, any NO_x 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 111 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 to -09, -11 to -22, -24, -26 to -29, -31 to -35, and -42 to -45, -47 to -48, -51 to -53, -55 to -63 and -65 to -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 SO₂ emissions by about a million tons per year below their 1980 rate of two million tons per year, and NO_x 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 SO₂ and NO_x 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 SO₂ 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. NO_x is not subject to trading under acid rain rules in the same way as SO₂, but allowances under the NO_x budget trading program (OAC 3745-14) were valued at about \$2700 per ton, which allowed acid rain NO_x 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, SO₂ allowances were selling for only two to five dollars, and NO_x allowances, for only \$200. The most recent progress report available from U.S. EPA indicates that in 2014, SO₂ allowances were selling for less than \$1, and NO_x 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 SO₂ 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 SO₂ 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 NO_x limit have a similar range of options. They may:

- Do system-wide averaging of NO_x 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-NO_x burners and/or perform various modifications to combustion conditions (such as exhaust-gas recirculation) to create lower peak flame temperatures and consequently less NO_x 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 SO₂ and NO_x 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 SO₂ and NO_x 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 NO_x, SO₂, 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.

A rule-by-rule breakdown of estimated costs follows.

3745-103-01 Definitions and incorporation by reference

The rule provides definitions applicable throughout the chapter, and includes an "Incorporation by reference" section listing the incorporated materials within the chapter, with web links and addresses where those materials may be obtained. There is no cost of compliance.

3745-103-02 Applicability

The rule defines which generating units are "affected units" and hence subject to the Acid Rain chapter. There is no cost of compliance.

3745-103-03 New units exemption

The rule states how a new unit may qualify for exemption based on its fuel quality and electrical generating capacity. There is no cost of compliance.

3745-103-04 Retired units exemption

The rule makes provisions for permanently retired units. There is no cost of compliance.

3745-103-05 Standard requirements

The rule states certain standard requirements, such as the duties to obtain a permit, conduct emissions monitoring, maintain records, hold sufficient SO₂ allowances, and comply with all applicable acid rain limitations on SO₂ and NO_x emissions. The costs of emissions monitoring and other types of data gathering and submittal have been addressed under the headings of the individual rules wherein the requirements are described in detail. The cost of curtailing actual emissions by engineering control and/or fuel-switching depends on the size of the combustion unit and the amount of needed reduction, and is highly variable for different facilities. The aggregate for Ohio is estimated at roughly three quarters of a billion dollars per year, for about 125 affected units.

3745-103-06 Designated representative

The rule describes the responsibilities of the designated representative. The cost of preparing allowance transfer and deduction forms, which is a responsibility of the designated representative, has been estimated to average about 2.5 hours or \$186 per year per affected unit, giving an aggregate cost of \$23,237 per year for about 125 affected units in Ohio.

3745-103-07 Acid rain permit applications

The rule states the requirement to apply for a permit, and the applicable deadlines. The cost of preparing designated representative and application or exemption forms has been estimated to average about six hours or \$460 per year per affected source, giving an aggregate cost of \$57,668 per year for about 125 affected units in Ohio.

3745-103-08 Permit application shield and binding effect of permit application

The rule describes how the submittal of a timely and complete acid rain permit application may serve to satisfy the requirement for a permit. There is no cost of compliance.

3745-103-09 Acid rain compliance plan and compliance options

The rule content relates to details of the approval process for conditional plans and compliance options. There is no cost of compliance.

3745-103-11 Acid rain permit

The rule identifies the basic content of an acid rain permit. There is no cost of compliance.

3745-103-12 Permit shield

The rule says that operating in compliance with an acid rain permit constitutes compliance with the acid rain program, with stated exceptions. There is no cost of compliance.

3745-103-13 Issuance of acid rain permits

The rule states Ohio EPA's responsibilities for administering and enforcing acid rain permits. There is no cost of compliance.

3745-103-14 Acid rain permit appeal procedures

The rule states the right of USEPA to intervene in an administrative appeal or denial of an acid rain permit, and it lists the acid rain requirements and provisions that may not be stayed by an administrative appeal. There is no cost of compliance.

3745-103-15 Permit revisions

The rule lists the rules and procedures that pertain to revision of acid rain permits and the acid rain portions of operating permits. There is no cost of compliance.

3745-103-16 Permit modifications

The rule defines what permit modifications are, and how they are to be issued. There is no cost of compliance.

3745-103-17 Fast-track modifications

The rule describes the actions to be taken by the designated representative to initiate a fast-track permit modification, and provides for a public comment period, and review by the director and the USEPA. There is no cost of compliance.

3745-103-18 Administrative permit amendment

The rule defines what administrative permit amendments are, and how they are to be issued. There is no cost of compliance.

3745-103-19 Automatic permit amendment

The rule lists revisions that become a part of the affected unit's acid rain permit by operation of law without any further review. There is no cost of compliance.

3745-103-20 Permit reopenings

The rule describes circumstances which require the director to reopen an acid rain permit for cause. There is no cost of compliance.

3745-103-21 Units with repowering extension plans

The rule states that units with repowering extension plans must notify the USEPA and Ohio EPA of certain events. There is no cost of compliance.

3745-103-22 Opt-in purpose and scope

The rule states that the purpose of rules 3745-103-22 to 3745-103-54 is the specification of procedures and requirements for permitting, reporting, monitoring, and allowance allocation for combustion and process sources of SO₂ emissions that elect to opt-into the Acid Rain program. There is no cost of compliance.

3745-103-23 Opt-in applicability

The rule states eligibility requirements for opt-in sources. There is no cost of compliance.

3745-103-24 Opt-in relationship to the acid rain program requirements

The rule identifies the applicability of other acid rain rules to opt-in sources. There is no cost of compliance.

3745-103-25 Opt-in designated representative

The rule makes provisions for the designated representative of opt-in sources. The cost of preparing allowance transfer and deduction forms, which is a responsibility of the designated representative, has been estimated to average about 2.5 hours or \$186 per year per affected source. Since no sources in Ohio have elected to opt-in, the aggregate cost is zero.

3745-103-26 Roles - USEPA and director

The rule delineates the respective responsibilities of the USEPA and the director under the opt-in provisions of the acid rain program. There is no cost of compliance.

3745-103-27 Opt-in permit contents

The rule specifies the required scope, content, and term of an opt-in acid rain permit. There is no cost of compliance.

3745-103-28 Opt-in permit process

The rule describes procedures for issuance or denial of opt-in acid rain permits. There is no cost of compliance.

3745-103-29 Opt-in application requirements for combustion sources

The rule describes the required content of an opt-in acid rain permit application. The cost of preparing designated representative and application forms and thermal energy compliance plans has been estimated to average about 207 hours or \$13,513 per affected source. Since no sources in Ohio have elected to opt-in, the aggregate cost is zero.

3745-103-30 Application requirements for process sources

The rule content is reserved. There is no cost of compliance.

3745-103-31 Opt-in withdrawal

The rule describes conditions and procedures for withdrawal from the opt-in acid rain program. There is no cost of compliance.

3745-103-32 Revision and renewal of opt-in permit

The rule describes procedures for revision and renewal of opt-in permits. There is no cost of compliance.

3745-103-33 Opt-in data for baseline and alternative baseline

The rule specifies acceptable baseline and alternative baseline data for opt-in sources. There is no cost of compliance.

3745-103-34 Actual SO₂ emissions rate

The rule provides formulas for calculation of actual sulfur dioxide emission rate. There is no cost of compliance.

3745-103-35 1985 allowable SO₂ emissions rate

The rule provides equations to calculate the allowable SO₂ emission rate for opt-in sources. There is no cost of compliance.

3745-103-36 Current allowable SO₂ emissions rate

The rule states that the designated representative of an opt-in source shall supply information concerning the most stringent federally enforceable SO₂ emission rate for that source. The cost of compliance with this rule is included within the estimate for 3745-103-29. Since no sources

in Ohio have elected to opt-in, the aggregate cost is zero.

3745-103-37 Current promulgated SO₂ emissions limit

The rule states that the designated representative of an opt-in source shall supply information concerning the most stringent federally enforceable SO₂ emission rate promulgated for that source, which is either effective or to be effective in the future. The cost of compliance with this rule is included within the estimate for 3745-103-29. Since no sources in Ohio have elected to opt-in, the aggregate cost is zero.

3745-103-38 Opt-in allocation formula

The rule lists the formulas to be used by the USEPA for calculation of annual allowance allocations for combustion sources in the opt-in program. There is no cost of compliance.

3745-103-39 Allowance allocation for combustion sources becoming opt-in sources on a date other than January first

The rule provides formulas to compute SO₂ allowance allocations for combustion sources that become opt-in sources on a date other than January first. There is no cost of compliance.

3745-103-40 Allowance calculation for process sources

The rule content is reserved. There is no cost of compliance.

3745-103-41 Establishment of opt-in source allowance accounts

The rule describes actions taken by the USEPA to establish opt-in allowance accounts. There is no cost of compliance.

3745-103-42 Identifying allowances

The rule states that opt-in allowances will be given special serial numbers identifying them as such, and it states conditions under which they may be offered for sale at auction. There is no cost of compliance.

3745-103-43 Prohibition on future year transfers

The rule describes the timing of opt-in allowance transfers performed by the USEPA. There is no cost of compliance.

3745-103-44 Annual compliance certification report

The rule states a requirement for opt-in sources to submit an annual compliance certification report to the USEPA. The cost of preparing required forms and reports has been estimated to average about 91 hours or \$5,990 per affected source. Since no sources in Ohio have elected to

opt-in, the aggregate cost is zero.

3745-103-45 Reduced utilization for combustion sources

The rule describes how the USEPA will perform deductions from the allowance accounts of opt-in sources, based on reduced utilization. There is no cost of compliance.

3745-103-46 Reduced utilization for process sources

The rule content is reserved. There is no cost of compliance.

3745-103-47 Opt-in source permanent shutdown, reconstruction, or change in affected status

The rule describes procedures for terminating the acid rain permit and deducting allowances for opt-in sources that undergo shutdown, reconstruction, or a change in affected status. There is no cost of compliance.

3745-103-48 Transfer of allowances from the replacement of thermal energy; combustion sources

The rule describes procedures for opt-in units, for transfer of allowances based on the replacement of thermal energy by a replacement unit. There is no cost of compliance.

3745-103-49 Transfer of allowances from the replacement of thermal energy - process sources

The rule content is reserved. There is no cost of compliance.

3745-103-50 Calculation for deducting allowances

The rule provides a formula for deducting allowances from the account of an opt-in source. There is no cost of compliance.

3745-103-51 Deducting opt-in source allowances from allowance tracking system accounts

The rule describes the deduction to the allowance tracking system accounts of opt-in sources that the USEPA may perform in response to a shutdown, reconstruction, change in affected status, or failure to renew an opt-in permit. There is no cost of compliance.

3745-103-52 Monitoring requirements

The rule states that affected and opt-in sources shall install, certify, operate, and maintain emission monitoring systems in accordance with 40 CFR part 75. The cost of maintaining monitors and collecting and submitting emissions data has been estimated to average about \$118,900 per year per affected unit, giving an aggregate cost of \$14,867,404 per year for about 125 affected units in Ohio. This includes zero cost for opt-in units, as there are none in Ohio.

3745-103-53 Monitoring plan

The rule states a requirement for the designated representative of an affected or an opt-in source to submit a monitoring plan. The cost of compliance is included within the estimate for 3745-103-52.

3745-103-54 Monitoring emissions; process sources

The rule content is reserved. There is no cost of compliance.

3745-103-55 NO_x applicability

The rule defines the criteria for inclusion in the Acid Rain nitrogen oxides program. There is no cost of compliance.

3745-103-56 General acid rain program provisions

The rule lists certain other rules in the Acid Rain chapter that are applicable to the nitrogen oxides program. There is no cost of compliance.

3745-103-57 NO_x emission limitations for group one phase I boilers

The rule states nitrogen oxides emission limits for certain categories of utility boiler. Operators of affected boilers may incur costs related to the need to install emission control equipment or alter the boiler operating conditions, as described above.

3745-103-58 NO_x emission limitations for group two boilers

The rule states nitrogen oxides emission limits for certain categories of utility boiler. Operators of affected boilers may incur costs related to the need to install emission control equipment or alter the boiler operating conditions, as described above.

3745-103-59 NO_x emission limitations for group one, phase II boilers

The rule states nitrogen oxides emission limits for certain categories of utility boiler. Operators of affected boilers may incur costs related to the need to install emission control equipment or alter the boiler operating conditions, as described above.

3745-103-60 Early election for group one, phase II boilers

The rule provides certain options relating to date of compliance with NO_x regulations for certain categories of boilers. There is no cost of compliance.

3745-103-61 Permit application and compliance plans

The rule requires affected sources to submit a complete acid rain permit application that includes a complete compliance plan for NO_x emissions. The cost of preparing NO_x compliance plan renewal applications and revisions has been estimated to average about three quarters of an hour or \$46 per year per affected source, giving an aggregate cost of \$5,005 per year for about 110 affected sources in Ohio. This does not include the cost of the original application, which may be estimated at about two and a half hours or \$190 per source, or \$20,900 aggregate for Ohio.

3745-103-62 Alternative emission limitations

The rule describes the petitioning and approval process for granting alternative emission limitations for nitrogen oxides. The cost of preparing an application is estimated at two and a half hours or \$190 per source. Since one applicant in Ohio has submitted a petition, this is the aggregate cost for Ohio.

3745-103-63 Emissions averaging

The rule provides for an attainment demonstration based on the average nitrogen oxides emissions from a group of boilers, in lieu of attainment for each boiler individually. There is no cost of compliance.

3745-103-65 Monitoring, recordkeeping, and reporting

The rule states monitoring, recordkeeping, and reporting requirements associated with the process of requesting an alternative emission limitation for oxides of nitrogen. The cost of recordkeeping and reporting associated with the necessary demonstration period is estimated at 300 hours or \$24,000 for a single source. The process has not been carried to conclusion for any source in Ohio and consequently the estimated aggregate cost is zero.

3745-103-66 Test methods and procedures

The rule defines the test methods and procedures associated with the process of obtaining an alternative emission limitation for NO_x. There is no cost of compliance because the process of petitioning for an alternative emission limitation has not been carried to conclusion for any source in Ohio.