

## ARTICLE 10. NITROGEN OXIDES RULES

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### Rule 1. Nitrogen Oxides Control in Clark and Floyd Counties

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#### 326 IAC 10-1-1 Applicability

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#); [IC 13-17-3-12](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 1. (a) Emissions of nitrogen oxides (NO<sub>x</sub>) from facilities located in Clark or Floyd County shall be controlled as follows, and any proposal to establish an alternative limitation shall be in accordance with section 4(c)(1) of this rule:

(1) Any stationary source located in Clark or Floyd County that exists on or before the effective date of this rule and that emits or has the potential to emit greater than or equal to one hundred (100) tons per year or more of NO<sub>x</sub> from all facilities at the source shall apply reasonable available control technology (RACT) as set forth in this rule.

(2) Any facility that exists on or before the effective date of this rule that has the potential to emit NO<sub>x</sub> greater than or equal to forty (40) tons per year and that is located at a source that emits or has the potential to emit NO<sub>x</sub> greater than or equal to one hundred (100) tons per year, shall comply with the applicable provisions of this rule.

(3) Facilities requiring a permit under 326 IAC 2 that are constructed, modified, or reconstructed after the effective date of this rule and to which a new source performance standard (NSPS) does not apply shall comply with this rule or best available control technology (BACT), whichever is more stringent.

(b) Unless emissions have been limited in accordance with subsection (c), the emission limitations established in section 4 of this rule shall apply to the following facilities at sources meeting the requirements of subsection (a)(1):

(1) Each electric utility steam generating unit of the type listed in section 4(b)(2) of this rule with heat input capacity greater than or equal to two hundred fifty (250) million Btu per hour.

(2) Each industrial, commercial, or institutional steam generating unit of the type listed in section 4(b)(3) of this rule with heat input capacity greater than or equal to one hundred (100) million Btu per hour.

(3) Each portland cement long dry kiln with production capacity greater than or equal to twenty (20) tons of clinker per hour.

(4) Each portland dry preheat process kiln with production capacity greater than or equal to twenty (20) tons of clinker per hour.

(5) Any other type of facility that emits or has the potential to emit NO<sub>x</sub> greater than or equal to forty (40) tons per year.

(c) A facility identified in subsection (b) shall not be subject to the emissions limits of section 4 of this rule if the source's actual emissions have been limited to below one hundred (100) tons per year through federally enforceable production or capacity limitations in an operating permit in accordance with section 3(2) of this rule and 326 IAC 2-8 on or before December 14, 1996.

(d) A facility that exists on or before the effective date of this rule that is subject to a NSPS under 40 CFR 60\* that affects emissions of NO<sub>x</sub> is not subject to this rule.

\*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-1-1; filed May 13, 1996, 5:00 p.m.: 19 IR 2869; filed Apr 22, 1997, 2:00 p.m.: 20 IR 2370; filed Dec 20, 2001, 4:30 p.m.: 25 IR 1602*)

**326 IAC 10-1-2 Definitions**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-17](#)

Sec. 2. The following definitions apply throughout this rule:

- (1) "Actual emissions" means a facility's actual emissions for the baseline year.
- (2) "Affected facility" means any facility described in section 1(a)(2) or 1(a)(3) of this rule.
- (3) "Affected source" means any source described in section 1(a)(1) of this rule.
- (4) "Baseline year" means the most recent year prior to the effective date of this rule for which available data is complete, accurate, and representative of normal operations.
- (5) "Clinker" means a product produced in a portland cement kiln which is then proportioned with additives and ground into a fine powder called portland cement.
- (6) "Coal" means all solid fuels classified as anthracite, bituminous, sub-bituminous, or lignite by the American Society of Testing and Materials (ASTM) Designation D 388-95\*.
- (7) "Coal fired steam generating unit" means a facility that, for the purpose of fuel switching in this rule, derived ninety percent (90%) or more of its total heat from combustion of coal in the baseline year.
- (8) "Distillate oil" means fuel oil that contains five-hundredths (0.05) weight percent or less nitrogen and complies with the specifications for fuel oil number 1 or 2 as defined by ASTM D 396-92\*, Standard Specifications for Fuel Oil.
- (9) "Dry bottom boiler" means a boiler that has a furnace bottom temperature below the ash melting point and from which the bottom ash is removed as a solid.
- (10) "Facility" is defined at 326 IAC 1-2-27.
- (11) "Federally enforceable" is defined at 326 IAC 1-2-28.5.
- (12) "Gaseous fuels" means natural gas.
- (13) "Industrial, commercial, institutional steam generating unit" means a device that combusts one (1) or more of a combination of coal, oil, and gas and produces steam or hot water primarily to supply power, heat, or hot water to any industrial, commercial, or institutional operation, including boilers used by electric utilities that are not utility boilers.
- (14) "Natural gas" means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane.
- (15) "Nitrogen oxides" or "NO<sub>x</sub>" means all oxides of nitrogen including, but not limited to, nitrogen oxide and nitrogen dioxide, but excluding nitrous oxide, collectively expressed as nitrogen dioxide.
- (16) "Oil" means crude oil or petroleum, or liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.
- (17) "Oil fired steam generating unit" means a facility that, for the purpose of fuel switching in this rule, derived ninety percent (90%) or more of its total heat from combustion of oil in the baseline year.
- (18) "Operating day" means a twenty-four (24) hour period between midnight (12 p.m.) and the following midnight during which any facility combusts fuel or produces intermediate or final products. It is not necessary for the facility to operate continuously for the entire twenty-four (24) hour period.
- (19) "Overfeed stoker" means a boiler design that employs a moving grate assembly where the coal is fed into a hopper and then onto a continuous grate that conveys the coal into the furnace. As coal moves through the furnace, it passes over several air zones for staged burning.
- (20) "Owner or operator" means any person who owns, leases, controls, operates, or supervises any source subject to this rule.
- (21) "Portland cement dry preheat process kiln" means a reaction vessel that receives dried raw material from a preheater and calcines and sinters the dried raw material into a product called cement clinker.
- (22) "Portland cement long dry kiln" means a reactive vessel that dries, calcines, and sinters raw materials into a product called portland cement clinker.
- (23) "Portland cement plant" means any facility that manufactures portland cement by either the wet or dry process.
- (24) "Potential emissions" means a facility's potential emissions as defined in 326 IAC 1-2-55 for the baseline year.
- (25) "Residual oil" means crude oil and fuel oil that do not comply with the specifications under the definition of distillate oil and all fuel oil numbers 3, 4, and 6 as defined by ASTM D 396-92\*, Standard Specifications for Fuel Oils.

(26) "Source" is defined at 326 IAC 1-2-73.

(27) "Spreader stoker" means a boiler design where mechanical or pneumatic feeders distribute coal uniformly over the surface of a moving grate.

(28) "Tangentially fired boiler" means a boiler that has coal and air nozzles mounted in each corner of the furnace where the vertical furnace walls meet. Both pulverized coal and air are directed from the furnace corners along a line tangential to a circle lying in a horizontal plane of the furnace.

(29) "Thirty (30) day rolling average" means an emission rate calculated each operating day by averaging all the preceding thirty (30) successive operating days average emission rates.

(30) "Utility steam generating unit" means any facility that is constructed for the purpose of supplying more than one-third ( $\frac{1}{3}$ ) of its potential electric output capacity and more than twenty-five (25) megawatts of electric output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electric energy for sale is also considered in determining the electric energy output capacity of the affected facility.

(31) "Wall-fired boiler" means a boiler that has pulverized coal burners arranged on the wall of the furnace. The burners have discrete, individual flames that extend perpendicularly into the furnace area.

(32) "Wet bottom" means a boiler that has a furnace bottom temperature above the ash melting point and from which the bottom ash is removed as a liquid.

\*These documents are incorporated by reference. Copies are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-1-2; filed May 13, 1996, 5:00 p.m.: 19 IR 2870; errata filed Mar 21, 1997, 9:50 a.m.: 20 IR 2116; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1569; filed Aug 26, 2004, 11:30 a.m.: 28 IR 70*)

### 326 IAC 10-1-3 Requirements

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-17](#)

Sec. 3. The owner or operator of an affected source shall comply with this rule as follows:

(1) Within ninety (90) days of the effective date of this rule, the owner or operator of an affected source that has no affected facility shall submit to the department a declaration to that effect and a copy of each permit that affects its NO<sub>x</sub> emissions.

(2) The owner or operator of an affected source that has an affected facility, who elects to comply with this rule by limiting actual emissions of a source to below one hundred (100) tons per year through federally enforceable production or capacity limits in an operating permit, shall do the following:

(A) On or before March 14, 1996, or the effective date of this rule, whichever is later, submit to the department a complete application for a permit or a permit revision consistent with 326 IAC 2.

(B) Within one hundred eighty (180) days of the issuance of the permit by the department, achieve compliance with the permit conditions.

(C) Within thirty (30) days of the date in clause (B), submit to the department a statement that compliance with the enforceable permit limitation or limitations has been achieved.

(D) Subsequent to the date in clause (B), comply with the conditions of the permit.

(3) The owner or operator of an affected source to which section 4 of this rule applies shall do the following:

(A) An owner or operator who elects to comply with an alternative emission limit developed according to section 4(c)(1) of this rule shall do the following:

(i) By December 1, 1996, or within thirty (30) days of the effective date of this rule, whichever is later, submit for approval of U. S. EPA and the department a petition for an alternative emission limit in accordance with 326 IAC 8-1-5. Prior to submission of the petition, the owner or operator may submit for department review an alternative emission limit development plan that identifies the following:

(AA) The affected facility.

(BB) Reasons for electing an alternative emissions limit.

(CC) Procedures the source will use to develop the alternative emission limit, including the control

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measures that will be evaluated.

(DD) Any emissions monitoring that will be performed.

(ii) Within two hundred seventy (270) days of the approval of the petition by U.S. EPA and the department, implement the approved control measures and perform an initial compliance test according to procedures in section 5 of this rule.

(iii) Within ninety (90) days of the initial test in item (ii), submit to the department documents required by section 7(a) of this rule.

(iv) After the date in item (iii), comply with the alternative emissions limit according to procedures in the approved petition and section 5 of this rule as applicable.

(B) An owner or operator who elects to comply with an emission limit based on a fuel switching program developed in accordance with section 4(c)(2) of this rule shall do the following:

(i) Within thirty (30) days of the effective date of this rule, submit to the department a statement identifying the facilities that will be included in the fuel switching program.

(ii) Within one hundred eighty (180) days of the effective date of this rule, submit plans as required in section 4(c)(2) of this rule.

(iii) Implement plans within thirty (30) days of approval by the department.

(iv) On the date in item (iii), notify the department that the plan has been implemented.

(v) After the date in item (iii), comply with the approved plan.

(C) An owner or operator who elects to comply with an emission limit based on an approved emissions averaging plan developed in accordance with section 4(c)(3) of this rule shall do the following:

(i) Within thirty (30) days of the effective date of this rule, submit to the department and to U.S. EPA a statement identifying the facilities that will be included in the emissions averaging plan.

(ii) Within one hundred eighty (180) days of the effective date of this rule, submit plans as required in section 4(c)(2) or 4(c)(3) of this rule.

(iii) Implement plans within thirty (30) days of approval by U.S. EPA and the department.

(iv) On the date in item (iii), notify the department that the plan has been implemented.

(v) After the date in item (iii), comply with the approved plan.

(D) For affected sources with facilities to which section 4(b)(5) of this rule applies, within ninety (90) days of the effective date of this rule, submit to the department the following:

(i) A statement identifying each facility to which section 4(b)(5) of this rule applies.

(ii) Proposed NO<sub>x</sub> control measures.

(iii) Expected percentage emission reductions.

(iv) Monitoring and record keeping procedures that will demonstrate compliance with the emission limit.

(4) Utility steam generating units shall achieve compliance with this rule on or before November 1, 1996, and submit to the department documents required in section 7(a) of this rule on or before December 31, 1996.

(5) An owner or operator who elects to comply with emissions limits in section 4(b) of this rule shall do the following:

(A) Within two hundred seventy (270) days of the effective date of this rule, comply with the emission limits in section 4(b) of this rule and perform initial compliance testing according to the procedures in section 5 of this rule.

(B) Within ninety (90) days of completion of initial compliance testing required by clause (A), submit to the department documents required in section 7(a) of this rule.

*(Air Pollution Control Division; 326 IAC 10-1-3; filed May 13, 1996, 5:00 p.m.: 19 IR 2871)*

### **326 IAC 10-1-4 Emissions limits**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-17](#)

Sec. 4. (a) The owner or operator of an affected source shall limit nitrogen oxide (NO<sub>x</sub>) emissions from affected facilities by complying with any of the NO<sub>x</sub> limits specified as follows:

(1) Subsection (b).

(2) Subsection (c).

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- (3) A combination of limits in subsections (b) and (c).  
 (b) NO<sub>x</sub> emissions limits applicable to affected facilities are as follows:  
 (1) For portland cement kilns, the following:

- (A) NO<sub>x</sub> emissions from each portland cement long dry kiln with a clinker production capacity greater than or equal to twenty (20) tons per hour shall not exceed ten and eight-tenths (10.8) pounds per ton of clinker produced on an operating day basis and six (6.0) pounds per ton of clinker produced on a thirty (30) day rolling average basis.  
 (B) NO<sub>x</sub> emissions from each portland cement dry preheater process kiln with a clinker production capacity greater than or equal to twenty (20) tons per hour shall not exceed five and nine-tenths pounds per ton (5.9 lbs/ton) of clinker produced on an operating day basis and four and four-tenths pounds per ton (4.4 lbs/ton) clinker produced on a thirty (30) day rolling average basis.

- (2) For electric utility steam generating boilers, NO<sub>x</sub> emissions from each electric utility steam generating unit that has heat input capacity greater than or equal to two hundred fifty (250) million Btu per hour, and that combusts only coal, oil, or gas shall not exceed the following limits on a thirty (30) day rolling average basis:

Boiler Type	Fuel Type	Emissions Limit (lb/million Btu input)
Wall-fired dry bottom	Pulverized coal	0.5
	Distillate oil	0.2
	Residual oil	0.3
	Gas	0.2

- (3) For industrial, commercial, institutional boilers, NO<sub>x</sub> emissions from each industrial, commercial, or institutional steam generating unit that has heat input capacity greater than or equal to one hundred (100) million Btu per hour, and that combusts only coal, oil, or gas shall not exceed the following limits:

Boiler Type	Fuel Type	Emissions Limit (lb/million Btu input)
Wall-fired dry bottom	Pulverized coal	0.5
Tangentially fired	Pulverized coal	0.4
Spreader stoker	Pulverized coal	0.5
Overfeed stoker	Pulverized coal	0.4
Oil fired	Distillate oil	0.2
	Residual oil	0.3
Gas fired	Gas	0.2

Limits shall be complied with on a three (3) hour basis in accordance with section 5 of this rule; however, if a continuous emissions monitor (CEM) is installed then limits shall be complied with on a thirty (30) day rolling average basis.

- (4) Each facility listed in subdivision (2) or (3) that simultaneously combusts a mixture of coal, oil, or gas shall comply with emissions limits determined by the following equation:

Equation 1  

$$E = (A \times E1 + B \times E2 + C \times E3) / (A + B + C)$$

- Where:
- E = the NO<sub>x</sub> limit expressed as pounds per million Btu.
  - A = heat input in million Btu from combustion of coal.
  - B = heat input in million Btu from combustion of oil.
  - C = heat input in million Btu from combustion of gas.
  - E1 = applicable emissions limit in subdivision (2) or (3) in pounds per million Btu for coal.
  - E2 = applicable emissions limit in subdivision (2) or (3) in pounds per million Btu for oil.
  - E3 = applicable emission limit in subdivision (2) or (3) in pounds per million Btu for gas.

- (5) NO<sub>x</sub> emissions from any facility other than those listed in subdivision (1), (2), or (3) that emits or that has potential to emit NO<sub>x</sub> equal to or greater than forty (40) tons per year shall comply with an emissions limit that shall be achieved by controlling actual NO<sub>x</sub> emissions by at least forty percent (40%). This requirement does not apply to facilities of the type listed in

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subdivision (1), (2), or (3), including those that are smaller than the applicable size cutoff. Limits shall be complied with on a three (3) hour basis in accordance with section 5 of this rule; however, if a CEM is installed then limits shall be complied with on a thirty (30) day rolling average basis.

(c) Instead of complying with the emissions limits in subsection (b), the owner or operator of an affected facility may elect to comply with the following alternative emissions limits:

(1) Where an owner or operator of a source existing on the effective date of this rule claims that an emissions limit in subsection (b) is technically or economically infeasible, the owner or operator may petition for an alternative emissions limit according to the procedures in section 3(3)(A) of this rule and 326 IAC 8-1-5. An alternative RACT petition approved by the department shall be submitted to the U.S. EPA for approval.

(2) Instead of complying with the emissions limits for steam generating units in subsection (b)(2) or (b)(3), the owner or operator may comply with an emissions limit based on a fuel switching program. Provisions applicable to fuel switching are as follows:

(A) Fuel may be switched as follows:

(i) A coal fired unit may combust oil, gas, or a combination of oil and gas during the period from May 1 through and including September 30. The unit shall comply with the applicable limit for coal combustion in subsection (b)(2) or (b)(3) on an annual basis and the applicable limit for coal combustion during the period May 1 through and including September 30.

(ii) An oil fired unit may combust oil with a lower NO<sub>x</sub> emitting potential, gas, or a combination of oil and gas during the period from May 1 through and including September 30. The unit shall comply with the applicable limit for oil combustion in subsection (b)(2) or (b)(3) on an annual basis and the applicable limit for oil during the period May 1 through and including September 30.

(B) The owner or operator shall submit to the department a fuel switching plan addressing the following information:

(i) Date the plan will be implemented.

(ii) Identification of each facility to be included in the fuel switching program.

(iii) For each facility in the fuel switching program the following information:

(AA) Type of steam generating unit based on fuels used in the baseline year and the applicable emissions limit in subsection (b)(2) or (b)(3).

(BB) Fuels that will be combusted.

(CC) Emission rate for each fuel, including basis, expressed as pounds per million Btu, and the amount of heat that will be derived from each fuel, expressed as million Btu.

(DD) Period of time during the year in which each fuel shall be used.

(EE) A demonstration that the actual annual fuel Btu weighted average emissions rate shall not exceed the applicable annual emissions limit using the following equation:

Equation 2

$$EL = (E1 \times H1 + E2 \times H2 + \dots) / (H1 + H2 + \dots)$$

Where: EL = applicable emissions limit, expressed in pounds per million Btu.

E1, E2,... = emission rate of alternative fuels 1, 2, etc., expressed in pounds per million Btu.

H1, H2,... = amount of heat derived from alternative fuels 1, 2, etc., expressed in million Btu per year.

(FF) Monitoring and record keeping procedures.

(GG) Procedures that shall be used to demonstrate compliance with the emissions limits as follows:

(aa) Annually.

(bb) During the fuel switching period.

(3) Instead of complying with the emissions limits in subsection (b), the owner or operator of an affected source may comply with an emission limit based on an approved emissions averaging plan. Provisions applicable to emissions averaging are as follows:

(A) Emissions may be averaged between facilities located at sources in Indiana provided the following:

(i) The sources are under the control of the same owner and have the same designated representative.

(ii) The facilities in Clark or Floyd County engaging in the averaging plan achieve at least the equivalent NO<sub>x</sub> reductions that would be achieved if each facility complied with the emissions limit in subsection (b).

(B) Emissions may be averaged only between the facilities in any category in subsection (b)(1), (b)(2), (b)(3), or (b)(5).

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(C) The owner or operator of an affected source electing to comply with emissions averaging shall submit to the department an emissions averaging plan that uses 40 CFR 76.11\* as a guideline, except that the compliance averaging time shall be as specified in this section.

(d) The commissioner may require verification of the emissions rates used by the owner or operator in subsection (c)(2) and (c)(3) using procedures and test methods in section 5 of this rule.

\*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-1-4; filed May 13, 1996, 5:00 p.m.: 19 IR 2872; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1569; filed Aug 26, 2004, 11:30 a.m.: 28 IR 71*)

### 326 IAC 10-1-5 Compliance procedures

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-17](#)

Sec. 5. Compliance with the requirements of this rule shall be demonstrated as follows:

(1) The owner or operator shall demonstrate initial compliance either by using a U.S. EPA or department certified continuous emissions monitor (CEM) or by using the test methods and procedures that follow:

(A) 326 IAC 3.

(B) 40 CFR 60\*.

(2) After the date that the initial compliance with the emission limits in section 4 of this rule is demonstrated, an owner or operator who installed CEMs shall demonstrate continuous compliance using either U.S. EPA or department certified CEMs.

(3) After the date that initial compliance with the emissions limits in section 4 of this rule is demonstrated, an owner or operator who does not install continuous emissions monitors shall demonstrate compliance with the emissions limits in section 4 of this rule using test methods and procedures in 326 IAC 3 and 40 CFR 60\*, if required by the department.

(4) Notwithstanding the provisions in subdivision (1) or (2), the U.S. EPA or the department may require an owner or operator to conduct compliance testing using test methods and procedures in 326 IAC 3 and 40 CFR 60\*.

(5) An owner or operator shall conduct compliance tests within ninety (90) days of the receipt of a written request by the department or the U.S. EPA.

(6) All compliance tests shall be conducted according to a protocol developed following procedures in 326 IAC 3.

(7) Compliance tests shall be reported in a format following procedures in 326 IAC 3.

\*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-1-5; filed May 13, 1996, 5:00 p.m.: 19 IR 2874; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1569; filed Aug 26, 2004, 11:30 a.m.: 28 IR 73*)

### 326 IAC 10-1-6 Emissions monitoring

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-17](#)

Sec. 6. The owner or operator of a facility subject to this rule shall comply with the following emissions monitoring requirements:

(1) NO<sub>x</sub> continuous emissions monitors (CEMs) shall be installed at the following facilities:

(A) Steam generating units, including utility and industrial, commercial, or institutional steam generating units according to the requirements of 326 IAC 3.

(B) Each portland cement long dry kiln and preheater process kiln with production capacity equal to or greater than twenty (20) tons of clinker per hour.

(C) Each facility of the type listed in section 1(a)(2) of this rule unless the owner or operator demonstrates to the satisfaction of the department that a NO<sub>x</sub> continuous emissions monitor is not technically feasible after considering the

following factors:

- (i) The physical configuration and mode of operation of the facility.
- (ii) The magnitude of and variability in NO<sub>x</sub> emissions.
- (iii) The type of control measures employed to achieve compliance with the emissions limits in section 4 of this rule.

An owner or operator subject to this clause shall include in the demonstration an alternate method to demonstrate initial and continuous compliance with the emissions limits.

(2) NO<sub>x</sub> CEMs at facilities listed in subdivision (1) shall be certified according to procedures contained in 326 IAC 3 and 40 CFR 75\* as applicable.

(3) Requirements that follow apply to NO<sub>x</sub> CEMs at facilities listed in subdivision (1):

(A) Operating and maintenance procedures contained in 326 IAC 3 and 40 CFR 75\* as applicable.

(B) Data recording and reporting procedures contained in 326 IAC 3 and 40 CFR 75\* as applicable, except that for the purpose of the excess emissions reporting requirement in 326 IAC 3, the excess emissions reported shall be those emissions that exceed the applicable emissions limits in section 4 of this rule.

\*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-1-6; filed May 13, 1996, 5:00 p.m.: 19 IR 2874; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1569; filed Aug 26, 2004, 11:30 a.m.: 28 IR 74*)

### 326 IAC 10-1-7 Certification, record keeping, and reports

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#)

Affected: [IC 13-17](#)

Sec. 7. (a) Except as specifically exempted in this rule, the owner or operator of an affected source shall submit the following documents:

(1) A statement, signed by the owner or operator, certifying that the source has achieved compliance with the requirements of this rule.

(2) Emissions compliance test reports.

(3) Continuous emissions monitoring system performance evaluation reports.

(b) In addition to complying with the specific record keeping requirements of other sections of this rule, the owner or operator of an affected source shall comply with the following record keeping requirements:

(1) Records shall be maintained for three (3) years.

(2) Records required by this rule shall be submitted to the department or the U.S. EPA within thirty (30) days of receipt of a written request.

(c) A source subject to this rule shall notify the department at least thirty (30) days prior to the addition or modification of a facility that may result in a potential increase in NO<sub>x</sub> emissions.

(d) The owner or operator of an affected source may comply with the reporting requirement of this rule by submitting to the department a substitute report. A substitute report is a report that satisfies an applicable state or federal reporting requirement and contains the information required to be submitted by this rule. (*Air Pollution Control Division; 326 IAC 10-1-7; filed May 13, 1996, 5:00 p.m.: 19 IR 2875*)

### Rule 2. NO<sub>x</sub> Emissions from Large Affected Units

[326 IAC 10-2-1](#)

Applicability

[326 IAC 10-2-2](#)

Definitions

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Monitoring provisions

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[326 IAC 10-2-5](#)

Certification and recertification

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Petition for approval of alternatives

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<a href="#">326 IAC 10-2-8</a>	Record keeping and reporting
<a href="#">326 IAC 10-2-8.5</a>	Alternative monitoring and reporting
<a href="#">326 IAC 10-2-9</a>	Ozone season NO <sub>x</sub> budget

**326 IAC 10-2-1 Applicability**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 1. (a) The owner or operator of a unit, as defined in section 2 of this rule, that meets the applicability requirements in subsection (b) shall comply with the nitrogen oxide (NO<sub>x</sub>) monitoring, record keeping, and reporting requirements in sections 3 through 8 of this rule, unless the unit is subject to:

- (1) the CSAPR NO<sub>x</sub> Ozone Season Group 2 Trading Program established under 40 CFR 97, Subpart EEEEE;
- (2) an equivalent trading program established under regulations approved as a state implementation plan revision under 40 CFR 52.38(b)(9);
- (3) 326 IAC 10-3-1(a)(2); or
- (4) 326 IAC 10-3-1(a)(3).

(b) This rule applies to the owner or operator of a unit that meets the following criteria:

(1) For a cogeneration unit that has a maximum design heat input capacity of greater than two hundred fifty (250) million British thermal units (MMBtu) per hour, the following:

(A) For a unit commencing operation before January 1, 1997, a unit that qualified as an unaffected unit under the acid rain program, in 40 CFR 72.6(b)(4), for 1995 and 1996.

(B) For a unit commencing operation on or after January 1, 1997, and before January 1, 1999, a unit that qualified as an unaffected unit under the acid rain program, in 40 CFR 72.6(b)(4), for 1997 and 1998.

(C) For a unit commencing operation on or after January 1, 1999, a unit qualifying as an unaffected unit under the acid rain program, in 40 CFR 72.6(b)(4), for each year beginning 1999.

(2) For a unit that is not a cogeneration unit and that has a maximum design heat input capacity of greater than two hundred fifty (250) MMBtu per hour, the following:

(A) For a unit commencing operation before January 1, 1997, a unit that did not serve a generator producing electricity for sale under a firm contract to the electric grid during 1995 or 1996.

(B) For a unit commencing operation on or after January 1, 1997, and before January 1, 1999, a unit that did not serve a generator producing electricity for sale under a firm contract to the electric grid during 1997 or 1998.

(C) For a unit commencing operation on or after January 1, 1999, a unit that at:

(i) no time serves a generator producing electricity for sale; or

(ii) any time serves a generator producing electricity for sale, if the generator has a nameplate capacity of twenty-five (25) megawatt electrical (MWe) output or less and has the potential to use no more than fifty percent (50%) of the potential electrical output capacity of the unit.

(3) For a cogeneration unit serving a generator with a nameplate capacity greater than twenty-five (25) MWe, the following:

(A) For a unit commencing operation before January 1, 1997, a unit that failed to qualify as an unaffected unit under the acid rain program, in 40 CFR 72.6(b)(4), for 1995 and 1996.

(B) For a unit commencing operation on or after January 1, 1997, and before January 1, 1999, a unit that failed to qualify as an unaffected unit under the acid rain program, in 40 CFR 72.6(b)(4), for 1997 and 1998.

(C) For a unit commencing operation on or after January 1, 1999, a unit failing to qualify as an unaffected unit under the acid rain program, in 40 CFR 72.6(b)(4), for any year.

(4) For a unit that is not a cogeneration unit serving a generator with a nameplate capacity greater than twenty-five (25) MWe, the following:

(A) For a unit commencing operation before January 1, 1997, a unit that served a generator during 1995 or 1996 that produced electricity for sale under a firm contract to the electric grid.

(B) For a unit commencing operation on or after January 1, 1997, and before January 1, 1999, a unit that served a generator during 1997 or 1998 that produced electricity for sale under a firm contract to the electric grid.

(C) For a unit commencing operation on or after January 1, 1999, a unit serving a generator at any time that produced

electricity for sale.

(5) For purposes of this rule, "electricity for sale under a firm contract to the electric grid" means electricity for sale where the capacity involved is intended to be available at all times during the period covered by a guaranteed commitment to deliver, even under adverse conditions.

(c) Any provision of this rule that applies to the designated representative of a large affected unit also applies to the owners or operators of the unit. (*Air Pollution Control Division; 326 IAC 10-2-1; filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#)*)

### 326 IAC 10-2-2 Definitions

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-11-2](#); [IC 13-15](#); [IC 13-17](#)

Sec. 2. (a) For purposes of complying with the requirements of this rule, the definitions in this rule and 40 CFR 72.2\* apply and take precedence in any conflict between these definitions and 326 IAC 1-2.

(b) The term "affected unit" in 40 CFR 75\* is replaced by the term "large affected unit" as defined in this section.

(c) In addition to the definitions in [IC 13-11-2](#), 326 IAC 1-2, and 40 CFR 72.2\*, the following definitions apply throughout this rule:

(1) "Boiler" means an enclosed combustion device used to produce heat and to transfer heat to recirculating water, steam, or other medium.

(2) "Cogeneration unit" means a unit that has equipment used to produce electric energy and forms of useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes, through the sequential use of energy, where "sequential use of energy" means the use of reject heat from:

(A) electricity production in a useful thermal energy application or process; or

(B) a useful thermal energy application or process in electricity production.

(3) "Combined cycle system" means a system comprised of one (1) or more combustion turbines, heat recovery steam generators, and steam turbines, configured to improve overall efficiency of electricity generation or steam production.

(4) "Combustion turbine" means:

(A) an enclosed device comprising a compressor, a combustor, and a turbine, in which the flue gas resulting from the combustion of fuel in the combustor passes through the turbine, rotating the turbine; and

(B) any associated duct burner, heat recovery steam generator and steam turbine, if the enclosed device under clause (A) is combined cycle.

(5) "Commencing commercial operation" means, with regards to a unit that serves a generator, to have begun to produce steam, gas, or other heated medium used to generate electricity for sale or use, including test generation, subject to the following:

(A) For a unit that is a large affected unit, on the date the unit commences commercial operation, the date remains the unit's date of commencement of commercial operation even if the unit is subsequently modified, reconstructed, or repowered.

(B) For a unit that is not a large affected unit, on the date the unit commences commercial operation, the date that the unit becomes a large affected unit, as defined under subdivision 11, is the unit's date of commencement of commercial operation.

(C) Except as provided in clauses (A) and (B), for a unit not serving a generator producing electricity for sale, the unit's date of commencement of operation is the unit's date of commencement of commercial operation.

(6) "Commencing operation" means the following:

(A) A unit commences operation on either the date:

(i) of commencement of any mechanical, chemical, or electronic process, including start-up of a unit's combustion chamber; or

(ii) a unit meets the applicability criteria in section 1 of this rule, if the unit was in operation prior to the date on which it met the applicability criteria in section 1 of this rule.

(B) A unit that undergoes a physical change after the date the unit commences operation, other than replacement of the unit by a unit at the same source, retains the unit's date of commencement of operation, and is treated as the same unit.

(C) A unit that is replaced by a unit at the same source, such as repowered, after the date the unit commences operation

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retains the replaced unit's date of commencement, and the replacement unit is treated as a separate unit with a separate date for commencement of operation.

(7) "Designated representative" means the person who is authorized by the owner or operator of the unit to represent and legally bind the owner or operator in matters pertaining to this rule, following the procedures for authorization and the responsibilities of the designated representative in 40 CFR 72, Subpart B\*, including the authorization of an alternate designated representative.

(8) "Fossil fuel" means natural gas, petroleum, coal, or any solid, liquid, or gaseous fuel derived from these materials.

(9) "Fossil fuel-fired" means the following:

(A) Except as provided in clause (B), the combustion of fossil fuel, alone or in combination with any other fuel, under any of the following scenarios:

(i) The fossil fuel actually combusted comprises more than fifty percent (50%) of the annual heat input on a British thermal unit (Btu) basis during any year starting in 1995. If a unit had no heat input in 1995, then during the last year of operation of the unit prior to 1995.

(ii) The fossil fuel is projected to comprise more than fifty percent (50%) of the annual heat input on a Btu basis during any year, provided that the unit is fossil fuel-fired as of the date during the year that the unit begins combusting fossil fuel.

(B) For the purposes of determining applicability in section 1(b)(3) and 1(b)(4) of this rule, combusting any amount of fossil fuel in any calendar year.

(10) "Heat input" means the product, expressed in Btu per unit of time (Btu/hr), of the following:

(A) The gross calorific value of the fuel, expressed in Btu per pound (Btu/lb).

(B) The fuel feed rate into a combustion device, expressed in mass of fuel per unit of time (lb/hr), as measured, recorded, and reported in accordance with 40 CFR 75, Subpart H\*.

Heat input does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust from other sources.

(11) "Large affected unit" means a unit that meets the applicability criteria in section 1 of this rule.

(12) "Maximum design heat input" means the maximum amount of fuel per hour, in million British thermal units per hour (MMBtu/hr), that a unit is capable of combusting on a steady state basis as of the initial installation of the unit as specified by the manufacturer of the unit.

(13) "Nameplate capacity" means the maximum electrical generating output, expressed in megawatt electrical (MWe) output, that a generator can sustain over a specified period of time when not restricted by seasonal or other deratings as measured in accordance with the United States Department of Energy standards.

(14) "Operator" means any person who operates, controls, or supervises the operation of a unit, including any holding company, utility system, or plant manager of the unit.

(15) "Owner" means any of the following persons:

(A) The holder of:

(i) any portion of the legal or equitable title; or

(ii) a leasehold interest;

in a unit.

(B) Any purchaser of power from a unit under a life-of-the-unit, firm power contractual arrangement, except that, unless expressly provided for in a leasehold agreement, owner does not include a passive lessor, or a person who has an equitable interest through the lessor, whose rental payments are not based, either directly or indirectly, on the revenues or income from the large affected unit.

(16) "Ozone control period" means the inclusive period:

(A) beginning either:

(i) May 1 of a calendar year; or

(ii) on the deadline for meeting the unit's monitor certification requirements under section 4(a) of this rule; and

(B) ending on September 30 of the same year.

(17) "Potential electrical output capacity" means thirty-three percent (33%) of a unit's maximum design heat input.

(18) "Replacement", "replace", or "replaced" means the demolition of, or the permanent shutdown and permanent disabling of, a unit, and the construction of another unit, to be used instead of the demolished or shutdown unit.

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(19) "Repowered" means replacement of a coal-fired boiler with one (1) of the following coal-fired technologies at the same source as the coal-fired boiler:

- (A) Atmospheric or pressurized fluidized bed combustion.
- (B) Integrated gasification combined cycle.
- (C) Magnetohydrodynamics.
- (D) Direct and indirect coal-fired turbines.
- (E) Integrated gasification fuel cells.
- (F) As determined by U.S. EPA in consultation with the Secretary of Energy, a derivative of one (1) or more of the technologies under clauses (A) through (E), and any other coal-fired technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of January 1, 2005.

(20) "Unit" means a fossil fuel-fired stationary boiler, combustion turbine, or a combined cycle system.

(21) "Unit operating day" means a calendar day in which a unit combusts any fuel.

\*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, [www.gpo.gov](http://www.gpo.gov), or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-2-2; filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#)*)

### 326 IAC 10-2-3 Monitoring provisions

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 3. (a) The owner or operator of a large affected unit subject to this rule, and to the extent applicable, the designated representative, shall comply with the monitoring, record keeping, and reporting requirements in this section and sections 4 through 8 of this rule, and in 40 CFR 75, Subpart H\*, except when complying with approved alternative monitoring and reporting requirements in section 8.5 of this rule. The owner or operator of a unit that is not a large affected unit, but that is required to monitor under 40 CFR 75.72(b)(2)(ii)\* for units with common stack and multiple stack configurations, shall comply with the same monitoring, record keeping, and reporting requirements as a large affected unit in this section and sections 4 through 8 of this rule.

(b) The owner or operator of each large affected unit shall do the following, except when complying with approved alternative monitoring and reporting requirements in section 8.5 of this rule:

(1) Install all monitoring systems required under this section for monitoring NO<sub>x</sub> ozone season mass emissions and individual unit heat input, including all systems required to monitor the following operating parameters in accordance with 40 CFR 75.71\* and 40 CFR 75.72\*, as applicable:

- (A) NO<sub>x</sub> emission rate.
- (B) NO<sub>x</sub> concentration.
- (C) Stack gas moisture content.
- (D) Stack gas flow rate.
- (E) Carbon dioxide (CO<sub>2</sub>) or oxygen (O<sub>2</sub>) concentration.
- (F) Fuel flow rate.

(2) Complete all certification tests required under section 5(b) of this rule and meet all other requirements of this section and 40 CFR 75\* applicable to the monitoring systems under subdivision (1).

(3) Record, report, and quality assure the data from the monitoring systems under subdivision (1).

(c) The designated representative for a large affected unit shall submit written notice to the department and U.S. EPA in accordance with 40 CFR 75.61\*, except when complying with approved alternative monitoring and reporting requirements in section 8.5 of this rule.

(d) The owner or operator of a large affected unit is subject to the applicable provisions of 40 CFR 75\* concerning units in long term cold storage, except when complying with approved alternative monitoring and reporting requirements in section 8.5 of this rule.

(e) The prohibitions in 40 CFR 75.70(c)\* apply to any monitoring system, alternative monitoring system, alternative reference method, or any other alternative for a continuous emissions monitoring system required under this rule, except when the owner or

operator is complying with approved alternative monitoring and reporting requirements in section 8.5 of this rule.

\*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, [www.gpo.gov](http://www.gpo.gov), or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-2-3; filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#); filed Sep 14, 2021, 8:47 a.m.: [20211013-IR-326190589FRA](#)*)

**326 IAC 10-2-4 Compliance dates for monitoring**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 4. (a) Except as provided in sections 3(d) and 8.5 of this rule, the owner or operator shall meet the monitoring system certification and other requirements of section 3(b) or 8.5(e) of this rule on or before the applicable dates in this section. The owner or operator shall record, report, and quality assure the data from the monitoring systems under section 3(b)(1) or 8.5(e) of this rule on and after the following dates:

(1) For units that commenced operation before August 26, 2018, by August 26, 2018.

(2) For the owner or operator of a large affected unit that commences operation after August 26, 2018, and that reports on an annual basis under section 8(b) of this rule, by one hundred eighty (180) calendar days after the date on which the unit commences commercial operation.

(3) For the owner or operator of a large affected unit that commences operation after August 26, 2018, and that reports on a control period basis under section 8(b) of this rule, by the later of the following dates:

(A) One hundred eighty (180) calendar days after the date on which the unit commences commercial operation.

(B) If the compliance date under clause (A) is not during an ozone control period, then by May 1 immediately following the compliance date under clause (A).

(4) For the owner or operator of a large affected unit for which construction of a new stack or flue or installation of add-on NO<sub>x</sub> emission controls is completed after August 26, 2018, and that reports on an annual basis under section 8(b) of this rule, by the earlier of the following dates:

(A) One hundred eighty (180) calendar days after the date on which emissions first exit to the atmosphere through the new stack or flue or add-on NO<sub>x</sub> emissions controls.

(B) Ninety (90) unit operating days after the date on which emissions first exit to the atmosphere through the new stack or flue or add-on NO<sub>x</sub> emissions controls.

(5) For the owner or operator of a large affected unit for which construction of a new stack or flue or installation of add-on NO<sub>x</sub> emission controls is completed after August 26, 2018, and that reports on a control period basis under section 8(b) of this rule, by the later of the following dates:

(A) The earlier of:

(i) one hundred eighty (180) calendar days after the date on which emissions first exit to the atmosphere through the new stack or flue or add-on NO<sub>x</sub> emissions controls; or

(ii) ninety (90) unit operating days after the date on which emissions first exit to the atmosphere through the new stack or flue or add-on NO<sub>x</sub> emissions controls.

(B) If the compliance date under clause (A) is not during an ozone control period, May 1 immediately following the compliance date under clause (A).

(b) The owner or operator of a large affected unit that does not meet the applicable compliance date set forth in subsection (a) for any monitoring system under section 3 of this rule shall, for each monitoring system, determine, record, and report maximum potential or, as appropriate, minimum potential, values for the following:

(1) NO<sub>x</sub> emission rate.

(2) NO<sub>x</sub> concentration.

(3) Stack gas moisture content.

(4) Stack gas flow rate.

(5) Fuel flow rate.

(6) Any other parameters required to determine NO<sub>x</sub> mass emissions and heat input in accordance with the following, as

applicable:

- (A) 40 CFR 75.31(b)(2)\*.
- (B) 40 CFR 75.31(c)(3)\*.
- (C) 40 CFR 75, Appendix D, Section 2.4\*.
- (D) 40 CFR 75, Appendix E, Section 2.5\*.

\*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, [www.gpo.gov](http://www.gpo.gov), or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-2-4; filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#); filed Sep 14, 2021, 8:47 a.m.: [20211013-IR-326190589FRA](#)*)

### **326 IAC 10-2-5 Certification and recertification**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 5. (a) The owner or operator of a large affected unit is exempt from the initial certification requirements of this section for a monitoring system under section 3 of this rule if the following conditions are met:

- (1) The monitoring system has been previously certified in accordance with 40 CFR 75\*.
- (2) The applicable quality assurance and quality control requirements of 40 CFR 75.21\*, 40 CFR 75, Appendix B\*, 40 CFR 75, Appendix D\*, and 40 CFR 75, Appendix E\* are fully met for the certified monitoring system described in subdivision (1).
- (b) The recertification provisions of this section apply to a monitoring system that is exempt from initial certification requirements under this section.

(c) Except as provided in subsection (a), the owner or operator of a large affected unit shall comply with the initial certification and recertification procedures in 40 CFR 75.20\* for a continuous monitoring system (a continuous emission monitoring system or an excepted monitoring system under 40 CFR 75, Appendix D\* or 40 CFR 75, Appendix E\*). The owner or operator of a unit that qualifies to use the low mass emissions (LME) excepted monitoring methodology under 40 CFR 75.19\* or that qualifies to use an alternative monitoring system under 40 CFR 75, Subpart E\* shall comply with the procedures in subsection (d) or section 7(b) of this rule, respectively.

(d) The owner or operator of a unit qualified under 40 CFR 75.19\* to use the LME excepted methodology shall meet the applicable certification and recertification requirements in 40 CFR 75.19(a)(2)\* and 40 CFR 75.20(h)\*. If the owner or operator of the unit elects to certify a fuel flowmeter system for heat input determination, the owner or operator shall meet the certification and recertification requirements in 40 CFR 75.20(g)\*.

\*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, [www.gpo.gov](http://www.gpo.gov), or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-2-5; filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#)*)

### **326 IAC 10-2-6 Data substitution**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 6. If a monitoring system fails to meet the quality assurance and quality control requirements or data validation requirements of 40 CFR 75\*, data must be substituted using the applicable missing data procedures from one (1) of the following:

- (1) 40 CFR 75, Subpart D\*.
- (2) 40 CFR 75, Subpart H\*.
- (3) 40 CFR 75, Appendix D\*.
- (4) 40 CFR 75, Appendix E\*.

\*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, [www.gpo.gov](http://www.gpo.gov), or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, Indiana 46204. (*Air Pollution Control Division;*

326 IAC 10-2-6; filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#))

**326 IAC 10-2-7 Petition for approval of alternatives**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 7. (a) A petition under 40 CFR 75.66\* requesting approval of alternatives to any requirement of section 3, 4, 5, 6, or 8 of this rule may be made as follows:

(1) Except as provided in subdivision (3), the designated representative of a large affected unit that is subject to an acid rain emissions limitation may submit a petition to U.S. EPA requesting approval to apply an alternative to any requirement of section 3, 4, 5, 6, or 8 of this rule. The designated representative may not use the alternative unless the alternative is approved in writing by U.S. EPA.

(2) The designated representative of a large affected unit that is not subject to an acid rain limitation may submit a petition to both the department and U.S. EPA requesting approval to apply an alternative to any requirement of section 3, 4, 5, 6, or 8 of this rule. The designated representative may not use the alternative unless the alternative is approved in writing by both the department and U.S. EPA.

(3) The designated representative of a large affected unit that is subject to an acid rain emissions limitation may submit a petition to both the department and U.S. EPA requesting approval to apply an alternative to a requirement concerning any additional continuous emission monitoring system required under 40 CFR 75.72\*. The designated representative may not use the alternative unless the alternative is approved in writing by both the department and U.S. EPA.

(b) The designated representative of each unit for which the owner or operator intends to use an alternative monitoring system approved by U.S. EPA and, if applicable, the department under 40 CFR 75, Subpart E\*, shall comply with the applicable notification and application procedures of 40 CFR 75.20(f)\*.

\*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, [www.gpo.gov](http://www.gpo.gov), or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, Indiana 46204. (*Air Pollution Control Division*; 326 IAC 10-2-7; filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#))

**326 IAC 10-2-8 Record keeping and reporting**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 8. (a) The designated representative of a large affected unit shall comply with all applicable record keeping and reporting requirements in this section and 40 CFR 75.73\* as follows, except when complying with approved alternative monitoring and reporting requirements in section 8.5 of this rule:

(1) The owner or operator of a large affected unit shall comply with requirements of both:

(A) 40 CFR 75.73(c)\*; and

(B) 40 CFR 75.73(e)\*.

(2) The designated representative shall submit an application to the department within forty-five (45) days after completing all initial certification or recertification tests required under section 5 of this rule, including the information required under 40 CFR 75.63\*.

(b) The designated representative shall submit quarterly reports as follows, except when complying with approved alternative monitoring and reporting requirements in section 8.5 of this rule:

(1) If the large affected unit is subject to an acid rain emissions limitation or if the owner or operator of the unit chooses to report on an annual basis under this section, the designated representative shall:

(A) meet the requirements of 40 CFR 75, Subpart H\*, for the entire year; and

(B) report the NO<sub>x</sub> mass emissions data and heat input data in an electronic quarterly report in a format prescribed by U.S. EPA, for each calendar quarter corresponding to the earlier of:

(i) the date of provisional certification; or

(ii) for a unit that commences commercial operation on or after August 26, 2018, the calendar quarter

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corresponding to the earlier of:

(AA) the date of provisional certification; or

(BB) the applicable deadline for initial certification under section 4(a) of this rule.

(2) If the large affected unit is not subject to an acid rain emissions limitation, the designated representative shall meet either of the following requirements:

(A) If the owner or operator chooses to report on an annual basis, both of the following:

(i) Meet the requirements of 40 CFR 75, Subpart H\* for the entire year.

(ii) Report the NO<sub>x</sub> mass emissions data and heat input data for the unit in accordance with this clause.

(B) If the owner or operator does not choose to report on an annual basis, both of the following:

(i) Meet the requirements of 40 CFR 75, Subpart H\* for the ozone control period.

(ii) Report NO<sub>x</sub> mass emissions data and heat input data for the ozone control period in an electronic quarterly report in a format prescribed by U.S. EPA, for each calendar year beginning with:

(AA) August 26, 2018; or

(BB) for a unit that commences commercial operation on or after August 26, 2018, the calendar quarter corresponding to the earlier of:

(aa) if it falls during the ozone control period, the date of provisional certification;

(bb) if it falls during the ozone control period, the applicable deadline for initial certification under section 4(a) of this rule; or

(cc) if neither subitem (aa) nor (bb) fall during the ozone control period, the quarter that includes May 1 through June 20 of the first ozone control period after the date of provisional certification or the applicable deadline for initial certification under section 4(a) of this rule.

(3) For large affected units that are also subject to an acid rain emissions limitation or another annual trading program, quarterly reports must include the following:

(A) Applicable data and information required by 40 CFR 75, Subparts F through H\*, as applicable.

(B) NO<sub>x</sub> mass emission data, heat input data, and other information required by this rule.

(4) For all large affected units subject to this rule, the designated representative shall submit quarterly reports to U.S. EPA within thirty (30) days following the end of the calendar quarter covered by the report in the manner specified in 40 CFR 75.73(f)\*.

(c) Except when complying with approved alternative monitoring and reporting requirements in section 8.5 of this rule, the designated representative shall submit to U.S. EPA a compliance certification, in a format prescribed by U.S. EPA, in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification must state that:

(1) the monitoring data submitted were recorded in accordance with the applicable requirements of this section and 40 CFR 75\*, including the quality assurance procedures and specifications;

(2) for a unit with add-on NO<sub>x</sub> ozone season emission controls and for all hours where NO<sub>x</sub> data are substituted in accordance with 40 CFR 75.34(a)(1)\*, the add-on emission controls were operating within the range of parameters listed in the quality assurance and quality control program under 40 CFR 75, Appendix B\* and the substitute data values do not systematically underestimate NO<sub>x</sub> emissions; and

(3) for a unit that is reporting on an ozone control period basis under subsection (b)(2)(B), the NO<sub>x</sub> mass emission rate and NO<sub>x</sub> concentration values substituted for missing data under 40 CFR 75, Subpart D\*, are calculated using only values from an ozone control period and do not systematically underestimate NO<sub>x</sub> emissions.

(d) Owners and operators of each large affected unit at the source shall comply with the following record keeping and reporting requirements:

(1) Unless otherwise provided, the owners and operators of each large affected unit at the source shall keep on site each of the following documents:

(A) The current certificate of representation for the designated representative for each large affected unit, and all documents that demonstrate the truth of the statements in the certificate of representation.

(B) All emissions monitoring information, in accordance with section 3 of this rule, with retention for a minimum of three (3) years.

(C) Copies of all reports and other submissions and all records made or required under this rule for a period of five (5)

years from the date the document was created.

(2) The designated representative of each large affected unit at the source shall submit the reports required under this rule.

\*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, [www.gpo.gov](http://www.gpo.gov), or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-2-8; filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#); filed Sep 14, 2021, 8:47 a.m.: [20211013-IR-326190589FRA](#)*)

### **326 IAC 10-2-8.5 Alternative monitoring and reporting**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 8.5. (a) Owners and operators of a large affected unit subject to this rule may use an alternative monitoring method and comply with the reporting requirements established in an operating permit in lieu of the requirements in sections 3 through 8 of this rule, if:

(1) approved by the department as sufficient to demonstrate compliance with the ozone season NO<sub>x</sub> emissions budget established under section 9 of this rule; and

(2) consistent with the requirements in this section.

(b) To request use of alternative monitoring and reporting requirements in this section, the owner or operator of a large affected unit shall submit an application for an operating permit or an application for a modification to an existing operating permit issued in accordance with 326 IAC 2.

(c) The application must include all of the following:

(1) An indication of which of the following alternatives is being requested:

(A) Monitoring in accordance with 40 CFR 60\*.

(B) Monitoring in accordance with 40 CFR 75\*, except that:

(i) references to the "Administrator" in 40 CFR 75\* means the department; and

(ii) reporting of data to U.S. EPA through electronic means in accordance with 40 CFR 75\*, Subpart G, does not apply.

(C) Monitoring of heat input and fuel use using a fuel flowmeter, with NO<sub>x</sub> emission rate determined through an emissions monitoring system certified, operated, and maintained in accordance with 40 CFR 60\*.

(D) Monitoring of heat input and fuel use and an approved emission factor for determination of NO<sub>x</sub> emissions. Liquid or gaseous fuel use must be measured using meters calibrated to the levels of accuracy specified in:

(i) Section 2.1.5 of 40 CFR 75, Appendix D\*;

(ii) 40 CFR 98.3(i)\*;

(iii) the ASME standards at 40 CFR 98.7\*; or

(iv) other procedures recommended by the manufacturer.

(2) A description of the proposed monitoring procedures, including how:

(A) data will be obtained, recorded, and quality assured; and

(B) NO<sub>x</sub> emissions will be accounted for during periods of missing data, such as periods of maintenance or malfunction.

(3) Emission monitoring data must be reported as provided in subsection (e).

(4) If monitoring of heat input and fuel use and an approved emission factor under subdivision (1)(D) is requested as the alternative, an emission factor analysis evaluating potential emission factors in pounds of NO<sub>x</sub> emitted per unit of fuel and heat input, for each fuel type, based on one (1) of the following:

(A) U.S. EPA's Compilation of Air Pollutant Emissions Factors, AP-42\*, as described in 326 IAC 1-1-3.5.

(B) A valid stack test using 40 CFR 60, Appendix A, Method 3\*, Method 7\*, and Method 19\*, conducted within the previous two (2) years from the date of the application submittal, if available.

(C) An analysis of continuous emission monitoring data representative of current operating conditions.

(D) An analysis of other relevant data or emission factors, if available.

(5) If monitoring and annual reporting of ozone control period NO<sub>x</sub> emissions in accordance with 40 CFR 60\* under subdivision (1)(A) or (1)(C) is requested, an explanation for how the amount of NO<sub>x</sub> emissions in tons per ozone control period

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will be determined from the NO<sub>x</sub> emission rate data in accordance with 40 CFR 60\*.

(6) If alternative monitoring and reporting is requested to begin within an ozone control period, a description of the transition process that ensures there will not be gaps in data collection and reporting of ozone control period NO<sub>x</sub> emissions.

(d) Prior to the use of alternative monitoring and reporting, one (1) of the following must be specified in an operating permit issued in accordance with 326 IAC 2:

(1) Applicable terms and conditions, including monitoring and reporting requirements in accordance with 40 CFR 60\* or 40 CFR 75\*.

(2) An emission factor and monitoring procedure for fuel use and heat input.

(e) The owner or operator of a large affected unit subject to alternative monitoring and reporting under this section shall meet all of the following:

(1) Comply with all terms and conditions specified in the operating permit.

(2) Install all data collection and recording systems required for alternative monitoring.

(3) Record and report the data from the monitoring systems required under this section in accordance with the terms and conditions in the operating permit.

(4) By April 15 each year, report NO<sub>x</sub> emissions in tons to the department, as determined using the approved alternative monitoring procedures, for the previous ozone control period.

(5) If alternative monitoring is based on an approved emission factor, the following requirements apply:

(A) Conduct stack tests to demonstrate the approved emission factor continues to be representative of current operating conditions.

(B) If the emissions factor analysis submitted in accordance with subsection (c)(2) did not include a stack test, an initial stack test must be conducted within ninety (90) days of permit issuance.

(C) Ongoing stack tests must be conducted at least once every five (5) years from the date of approval of the alternative monitoring request.

(D) Stack tests must be conducted in accordance with a test method specified in the operating permit and reported to the department within forty-five (45) days of the test.

(E) If a stack test indicates an emission factor may require upward adjustment, the owner or operator shall use the revised emission factor to report NO<sub>x</sub> emissions in tons per ozone control period and submit an application for a modification to an operating permit within sixty (60) days of receiving stack test results.

(6) Maintain records in accordance with the terms and conditions in the operating permit for a period of not less than five (5) years from the date the records are created. These records must be made available to the department upon request.

(f) An owner or operator of a large affected unit subject to this section shall not do the following:

(1) Operate the unit so as to discharge, or allow to be discharged, NO<sub>x</sub> emissions to the atmosphere during an ozone control period without accounting for all emissions in accordance with the applicable provisions of this section.

(2) Retire or permanently discontinue use of the monitoring system, or any component thereof, except when discontinuing use of alternative monitoring and reporting in accordance with this section and resuming compliance with monitoring and reporting requirements in accordance with sections 3 through 8 of this rule. This may only occur outside of an ozone control period.

(g) This section does not authorize exceptions or alternatives to any 40 CFR Part 75 monitoring requirements that apply to a source under a different legal authority.

(h) In accordance with the requirements of 40 CFR 51.122(c)(1)(i)\*, the department shall report annually to U.S. EPA all NO<sub>x</sub> emissions reported under this section.

\*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, [www.gpo.gov](http://www.gpo.gov), or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-2-8.5; filed Sep 14, 2021, 8:47 a.m.: [20211013-IR-326190589FRA](#)*)

### **326 IAC 10-2-9 Ozone season NO<sub>x</sub> budget**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 9. (a) The ozone season budget for all large affected units meeting the applicability criteria in section 1(b)(1) and 1(b)(2)

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of this rule is eight thousand eight (8,008) tons of NO<sub>x</sub> for each control period, as defined in section 2 of this rule. The sum of the total number of tons of NO<sub>x</sub> emitted from each large affected unit under section 1(b)(1) and 1(b)(2) of this rule must be less than or equal to the ozone season budget for large affected units.

(b) By May 1 of each year, the department shall conduct an annual review of actual NO<sub>x</sub> emissions during the previous ozone control period from all large affected units under section 1(b)(1) and 1(b)(2) of this rule, including any new units, to ensure that the total emissions remain below the ozone season budget. (*Air Pollution Control Division; 326 IAC 10-2-9; filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#)*)

### Rule 3. Nitrogen Oxide Reduction Program for Specific Source Categories

<a href="#">326 IAC 10-3-1</a>	Applicability
<a href="#">326 IAC 10-3-2</a>	Definitions
<a href="#">326 IAC 10-3-3</a>	Emission limits
<a href="#">326 IAC 10-3-4</a>	Monitoring and testing requirements
<a href="#">326 IAC 10-3-5</a>	Record keeping and reporting
<a href="#">326 IAC 10-3-6</a>	Violations

#### 326 IAC 10-3-1 Applicability

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 1. (a) This rule applies to any of the following:

(1) A Portland cement kiln with process rates equal to or greater than the following:

(A) For long dry kilns, twelve (12) tons per hour (tph).

(B) For long wet kilns, ten (10) tph.

(C) For preheater kilns, sixteen (16) tph.

(D) For precalciner and combined preheater and precalciner kilns, twenty-two (22) tph.

(2) The following affected boilers:

Source	Point ID	Unit	
(A) ArcelorMittal Burns Harbor	075	Boiler #7	
	076	Boiler #8	
	077	Boiler #9	
	078	Boiler #10	
	079	Boiler #11	
	080	Boiler #12	
	(B) ArcelorMittal Indiana Harbor	020	Boiler #4
		021	Boiler #5
022		Boiler #6	
023		Boiler #7	
024		Boiler #8	

(3) Any other blast furnace gas-fired boiler defined as a large affected unit under 326 IAC 10-2-2(c)(11).

(b) A unit subject to this rule and a New Source Performance Standard, a National Emission Standard for Hazardous Air Pollutants, or an emission limit established under 326 IAC 2 must comply with the limitations and requirements of the more stringent rule. For a unit subject to this rule and 326 IAC 10-1, compliance with the emission limits in section 3(a)(1)(A) of this rule during the ozone control period is deemed to be compliance with the emission limits in 326 IAC 10-1-4(b)(1) during the ozone control period, and the limits supersede those in 326 IAC 10-1-4(b)(1) during the ozone control period.

(c) The requirements of this rule apply to the specific units subject to this rule during startup and shutdown periods and periods of malfunction.

(d) During periods of blast furnace reline, startup, and periods of malfunction, the affected boilers are not required to meet the requirement of greater than fifty percent (50%) of the heat input from blast furnace gas. (*Air Pollution Control Division; 326 IAC*

10-3-1; filed Aug 17, 2001, 3:45 p.m.: 25 IR 14; errata filed Nov 29, 2001, 12:20 p.m.: 25 IR 1183; filed Jul 7, 2003, 4:00 p.m.: 26 IR 3550; filed Jan 26, 2007, 10:25 a.m.: [20070221-IR-326050117FRA](#); filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#))

### 326 IAC 10-3-2 Definitions

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-11-2](#); [IC 13-15](#); [IC 13-17](#)

Sec. 2. For purposes of this rule, the definition given for a term in this rule shall control in any conflict between 326 IAC 1-2 and this rule. In addition to the definitions provided in [IC 13-11-2](#) and 326 IAC 1-2, the following definitions apply throughout this rule unless expressly stated otherwise or unless the context clearly implies otherwise:

- (1) "Blast furnace gas fired" means deriving at least fifty percent (50%) of its total heat input from the combustion of blast furnace gas during the ozone control period.
- (2) "Boiler" means an enclosed fossil or other fuel-fired combustion device used to produce heat and to transfer heat to recirculating water, steam, or other heat transfer medium.
- (3) "Clinker" means the product of a Portland cement kiln from which finished cement is manufactured by milling and grinding.
- (4) "Continuous emission monitoring system" or "CEMS" means the total equipment necessary for the determination of a gas or particulate matter concentration or emission rate using pollutant analyzer measurements and a conversion equation, graph, or computer program to produce results in units of the applicable emission limitation or standard.
- (5) "Long dry kiln" means a Portland cement kiln fourteen (14) feet or larger in diameter and four hundred (400) feet or greater in length that employs no preheating of the feed. The inlet feed to the kiln is dry.
- (6) "Long wet kiln" means a Portland cement kiln fourteen (14) feet or larger in diameter and four hundred (400) feet or greater in length that employs no preheating of the feed. The inlet feed to the kiln is a slurry.
- (7) "Low-NO<sub>x</sub> burners" means a type of cement kiln burner system designed to lower NO<sub>x</sub> formation by controlling flame turbulence, delaying fuel/air mixing, and establishing fuel-rich zones for initial combusting, that for firing of solid fuel by a kiln's main burner includes an indirect firing system or comparable technique for the main burner to lower the amount of primary combustion air supplied with the pulverized fuel. In an indirect firing system, one (1) air stream is used to convey pulverized fuel from the grinding equipment and another air stream is used to supply primary combustion air to the kiln burner with the pulverized fuel, with intermediate storage of the fuel.
- (8) "Malfunction" means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- (9) "Mid-kiln firing" means the secondary firing in a kiln system by injecting solid fuel at an intermediate point in the kiln system using a specially designed feed injection mechanism for the purpose of decreasing NO<sub>x</sub> emissions through:
  - (A) burning part of the fuel at a lower temperature; and
  - (B) reducing conditions at the fuel injection point that may destroy some of the NO<sub>x</sub> formed upstream in the kiln system.
- (10) "Ozone control period" means the period as follows:
  - (A) For 2004, beginning May 31 and ending on September 30, inclusive.
  - (B) For 2005 and each year thereafter, beginning May 1 of a year and ending on September 30 of the same year, inclusive.
- (11) "Portland cement" means a hydraulic cement produced by pulverizing clinker consisting essentially of hydraulic calcium silicates, usually containing one (1) or more of the forms of calcium sulfate as an interground addition.
- (12) "Portland cement kiln" means a system, including any solid, gaseous, or liquid fuel combustion equipment, used to calcine and fuse raw materials, including limestone and clay, to produce Portland cement clinker.
- (13) "Precalciner kiln" means a kiln where the feed to the kiln system is preheated in cyclone chambers and a second burner is used to calcine material in a separate vessel attached to the preheater prior to the final fusion in a kiln that forms clinker.
- (14) "Preheater kiln" means a Portland cement kiln where the feed to the kiln system is preheated in cyclone chambers prior to the final fusion in a kiln that forms clinker.
- (15) "Semi-dry pre-calciner kiln" means a kiln where the inlet feed to the kiln system is a wet slurry. The wet slurry is subsequently processed in an integrated system consisting of a dryer and a separately fired pre-calciner, which in combination,

dries the excess moisture from the feed stream (using only exhaust gases from the pre-calciner and kiln), and calcines the resulting dried material before introduction into the rotary kiln. The final fusion in the kiln forms the clinker.

(16) "Shutdown" means the cessation of operation of a Portland cement kiln or affected boiler for any purpose.

(17) "Startup" means the setting in operation of a Portland cement kiln or affected boiler for any purpose.

*(Air Pollution Control Division; 326 IAC 10-3-2; filed Aug 17, 2001, 3:45 p.m.: 25 IR 15)*

### **326 IAC 10-3-3 Emission limits**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 3. (a) After May 31, 2004, an owner or operator of any Portland cement kiln subject to this rule shall not operate the kiln during the ozone control period of each year unless the owner or operator complies with one (1) of the following:

(1) Operation of the kiln with one (1) of the following:

(A) Low-NO<sub>x</sub> burners.

(B) Mid-kiln firing.

(2) A limit on the amount of NO<sub>x</sub> emitted when averaged over the ozone control period as follows:

(A) For long wet kilns, six (6) pounds of NO<sub>x</sub> per ton of clinker produced.

(B) For long dry kilns, five and one-tenth (5.1) pounds of NO<sub>x</sub> per ton of clinker produced.

(C) For preheater kilns, three and eight-tenths (3.8) pounds of NO<sub>x</sub> per ton of clinker produced.

(D) For precalciner and combined preheater and precalciner kilns, two and eight-tenths (2.8) pounds of NO<sub>x</sub> per ton of clinker produced.

(3) Installation and use of alternative control techniques that may include kiln system modifications, such as conversions to semi-dry precalciner kiln processing, subject to department and U.S. EPA approval that achieve a thirty percent (30%) emissions decrease from baseline ozone control period emissions. Baseline emissions must be the average of the sum of ozone control period emissions for the two (2) highest emitting years from 1995 through 2000 determined in accordance with subsection (d)(1).

(b) The owner or operator of a Portland cement kiln proposing to install and use an alternative control technique under subsection (a)(3) shall submit the proposed alternative control technique and calculation of baseline emissions with supporting documentation to the department and U.S. EPA for approval by May 1, 2003. The department shall include the approved plan with emission limitations in the source's operating permit.

(c) The owner or operator of any affected boiler subject to this rule shall limit NO<sub>x</sub> emissions to seventeen-hundredths (0.17) pound of NO<sub>x</sub> per million Btus (lb/MMBtu) of heat input averaged over the ozone control period and ensure that greater than fifty percent (50%) of the heat input is derived from blast furnace gas averaged over an ozone control period.

(d) The owner or operator of an affected boiler shall submit to the department a compliance plan for approval by the department and U.S. EPA in accordance with subsection (e) and including the following:

(1) Baseline stack test data, or proposed testing, for establishment of fuel specific emission factors, or the emission factors for the type of boiler from the Compilation of Air Pollutant Emission Factors (AP-42), as defined at 326 IAC 1-1-3.5, for each fuel to be combusted. The fuel specific emission factor must be developed from representative emissions testing, pursuant to 40 CFR 60, Appendix A, Method 7\*, 7A\*, 7C\*, 7D\*, or 7E\*, or 40 CFR 75\*, based on a range of typical operating conditions.

The owner or operator must:

(A) establish that these operating conditions are representative, subject to approval by the department; and

(B) certify that the emissions testing is being conducted under representative conditions.

(2) Anticipated fuel usage and combination of fuels.

(3) If desired by the source, a proposal for averaging the emission limit and fuel allocation among commonly owned units, including the proposed methodology for determining compliance.

(e) The owner or operator of an affected boiler shall submit to the department the compliance plan required in subsection (d) by the following date, as applicable:

(1) By May 1, 2003, for an affected boiler that became subject to the rule prior to May 1, 2003.

(2) Within sixty (60) days of the date the affected boiler becomes subject to this rule, for an affected boiler that becomes subject to the rule after May 1, 2003.

(f) Baseline ozone control period emissions must be determined using one (1) of the following methods:

(1) For kilns, the average of the emission factors for the type of kiln from the Compilation of Air Pollutant Emission Factors (AP-42), Fifth Edition, January 1995\*, Supplements A through G, December 2000\* and the NO<sub>x</sub> Control Technologies for the Cement Industry, Final Report, September 19, 2000\*.

(2) For kilns, the site-specific emission factor developed from representative emissions testing, pursuant to 40 CFR 60, Appendix A, Method 7\*, 7A\*, 7C\*, 7D\*, or 7E\*, based on a range of typical operating conditions. The owner or operator must:

(A) establish that these operating conditions are representative, subject to approval by the department; and

(B) certify that the emissions testing is being conducted under representative conditions.

(3) For kilns, an alternate method for establishing the emission factors, when submitted with supporting data to substantiate the emission factors and approved by the department and U.S. EPA as set forth in subsection (b).

(4) For affected boilers, as outlined in the site-specific compliance plan submitted under subsection (c).

\*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, www.gpo.gov, or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, Thirteenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-3-3; filed Aug 17, 2001, 3:45 p.m.: 25 IR 16; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1569; filed Jan 27, 2006, 11:25 a.m.: 29 IR 1876; filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#)*)

### 326 IAC 10-3-4 Monitoring and testing requirements

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 4. (a) Beginning May 31, 2004, and each ozone control period thereafter, any owner or operator of a Portland cement kiln complying with section 3(a)(1) of this rule shall operate and maintain the device according to a preventative maintenance plan prepared in accordance with 326 IAC 1-6-3.

(b) Beginning May 31, 2004, and each ozone control period thereafter, any owner or operator of a Portland cement kiln complying with section 3(a)(2) or 3(a)(3) of this rule shall monitor NO<sub>x</sub> emissions during the ozone control period of each year using a NO<sub>x</sub> CEMS in accordance with 40 CFR 60, Subpart A\* and 40 CFR 60, Appendix B\*, and comply with the quality assurance procedures specified in 40 CFR 60, Appendix F\* and 326 IAC 3, as applicable.

(c) Beginning May 31, 2004, and each ozone control period thereafter, any owner or operator of an affected boiler or commonly owned affected boilers shall monitor fuel usage and percentage of heat input derived from each fuel combusted to demonstrate that greater than fifty percent (50%) of the heat input is derived from blast furnace gas.

\*These documents are incorporated by reference and copies may be obtained from the Government Printing Office, Washington, D.C. 20402 or are available for copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-3-4; filed Aug 17, 2001, 3:45 p.m.: 25 IR 16*)

### 326 IAC 10-3-5 Record keeping and reporting

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 5. (a) Beginning May 31, 2004, and each ozone control period thereafter, any owner or operator of a Portland cement kiln or affected boiler shall comply with the following record keeping and reporting requirements:

(1) An owner or operator of a Portland cement kiln complying with section 3(a)(1) of this rule shall create and maintain records that include, but are not limited to, the following:

(A) All routine and nonroutine maintenance, repair, or replacement performed on the device or devices.

(B) The date, time, and duration of any startup, shutdown, or malfunction in the operation of a kiln or the device or devices.

(2) An owner or operator of a Portland cement kiln complying with section 3(a)(2) or 3(a)(3) of this rule or an affected boiler shall create and maintain records that include, but are not limited to, the following:

- (A) For Portland cement kilns, the following:
  - (i) Emissions, in pounds of NO<sub>x</sub> per ton of clinker produced from each affected Portland cement kiln.
  - (ii) Daily clinker production records.
- (B) For affected boilers, daily records of the fuel usage, including percentages of different fuels combusted and heat input derived from each fuel, including the following:
  - (i) Type of fuel used.
  - (ii) Quantity of fuel used.
  - (iii) Fuel specific emission factor (lbs/million cubic feet (mmcf) gas or lbs/1,000 gal oil).
  - (iv) Fuel specific heat content (mmBtu/1,000 gal for oil or mmBtu/mmcf for gas).
  - (v) Emissions in lb/mmBtu.
- (C) The date, time, and duration of any startup, shutdown, or malfunction in the operation of any of the Portland cement kilns, affected boilers, or the emissions monitoring equipment.
- (D) The results of any performance testing.
- (E) If a unit is equipped with a CEMS, identification of time periods:
  - (i) during which NO<sub>x</sub> standards are exceeded, the reason for the exceedance, and action taken to correct the exceedance and to prevent similar future exceedances; and
  - (ii) for which operating conditions and pollutant data were not obtained including reasons for not obtaining sufficient data and a description of corrective actions taken.
- (F) All records required to be produced or maintained shall be retained on site for a period of five (5) years. The records shall be made available to the department or the U.S. EPA upon request.

(b) By May 31, 2004, the owner or operator of a Portland cement kiln shall submit to the department the following information:

- (1) The identification number and type of each unit subject to this rule.
- (2) The name and address of the plant where the unit is located.
- (3) The name and telephone number of the person responsible for demonstrating compliance with this rule.
- (4) Anticipated control measures, if any.

(c) The owner or operator of a Portland cement kiln subject to this rule shall submit a report documenting for that unit the total NO<sub>x</sub> emissions and the average NO<sub>x</sub> emission rate for the ozone control period of each year to the department by October 31, beginning in 2004 and each year thereafter. For Portland cement kilns complying with section 3(a)(1) of this rule, estimated emissions and emission rate shall be determined in accordance with section 3(d) of this rule or from CEMS data, if a Portland cement kiln is equipped with a CEMS as of the effective date of this rule.

(d) The owner or operator of a Portland cement kiln complying with section 3(a)(1) of this rule shall include a certification with the report under subsection (c) that the control technology was installed, operated, and maintained in accordance with this rule.

(e) The owner or operator of an affected boiler subject to this rule shall submit a report to the department documenting compliance with all applicable requirements of this rule in accordance with its site specific compliance plan detailed under section 3(c) of this rule for the ozone control period of each year by October 31, beginning in 2004 and each year thereafter. (*Air Pollution Control Division; 326 IAC 10-3-5; filed Aug 17, 2001, 3:45 p.m.: 25 IR 17*)

### **326 IAC 10-3-6 Violations**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 6. For purposes of determining the number of days of violations, if a Portland cement kiln or affected boiler has excess emissions for an ozone control period, each day in the ozone control period constitutes a day in violation unless the owners and operators demonstrate that a lesser number of days should be considered. (*Air Pollution Control Division; 326 IAC 10-3-6; filed Aug 17, 2001, 3:45 p.m.: 25 IR 18*)

### **Rule 4. Nitrogen Oxides Budget Trading Program (*Repealed*)**

(*Repealed by Air Pollution Control Division; filed Jul 27, 2018, 2:25 p.m.: [20180822-IR-326150414FRA](#)*)

### **Rule 5. Nitrogen Oxide Reduction Program for Internal Combustion Engines (ICE)**

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NITROGEN OXIDES RULES

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<a href="#">326 IAC 10-5-1</a>	Applicability
<a href="#">326 IAC 10-5-2</a>	Definitions
<a href="#">326 IAC 10-5-3</a>	Compliance plan
<a href="#">326 IAC 10-5-4</a>	Monitoring and testing requirements
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### 326 IAC 10-5-1 Applicability

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 1. The requirements of this rule apply to the owner or operator of any large NO<sub>x</sub> SIP Call engine. (*Air Pollution Control Division; 326 IAC 10-5-1; filed Jan 27, 2006, 11:25 a.m.: 29 IR 1899*)

### 326 IAC 10-5-2 Definitions

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 2. The following definitions apply throughout this rule:

(1) "Affected engine" means any stationary internal combustion engine that is:

- (A) a large NO<sub>x</sub> SIP Call engine; or
- (B) other stationary internal combustion engine;

that is subject to NO<sub>x</sub> control under a compliance plan under section 3 of this rule.

(2) "Engine seasonal NO<sub>x</sub> 2007 tonnage reduction" means the year 2007 seasonal NO<sub>x</sub> emissions reductions value in tons for a large NO<sub>x</sub> SIP Call engine. This is calculated as the difference between the 2007 ozone season base NO<sub>x</sub> emissions and the 2007 ozone season budget NO<sub>x</sub> emissions contained in the NO<sub>x</sub> SIP Call engine inventory.

(3) "Facility seasonal NO<sub>x</sub> 2007 tonnage reduction" means the total of the engine seasonal NO<sub>x</sub> 2007 tonnage reductions attributable to all of an owner or operator's large NO<sub>x</sub> SIP Call engines.

(4) "Large NO<sub>x</sub> SIP Call engine" means a stationary internal combustion engine identified and designated as large in the NO<sub>x</sub> SIP Call engine inventory as emitting more than one (1) ton of NO<sub>x</sub> per average ozone season day in 1995.

(5) "NO<sub>x</sub> SIP Call engine inventory" means the inventory of internal combustion engines compiled by U.S. EPA as part of the NO<sub>x</sub> SIP Call rule, including technical amendments announced in the March 2, 2000, Federal Register notice (65 FR 11222)\*, and the adjustment of the 2007 budget NO<sub>x</sub> control efficiency to eighty-two percent (82%) for large gas-fired engines announced in the April 21, 2004, Federal Register notice (69 FR 21604)\* for the Phase II NO<sub>x</sub> SIP Call rule.

(6) "Ozone season" means the time period between May 1 and September 30.

(7) "Past NO<sub>x</sub> emission rate" means the following:

(A) For large NO<sub>x</sub> SIP Call engines, the past NO<sub>x</sub> emission rate is the 1995 uncontrolled emission rate in grams per brake horsepower hour (g/bhp-hr) that was used to determine NO<sub>x</sub> emissions from this engine for the NO<sub>x</sub> SIP Call emissions inventory.

(B) For an affected engine other than a large engine, the past NO<sub>x</sub> emission rate in grams per brake horsepower per hour (g/bhp-hr) shall be determined based on performance testing consistent with the requirements of 40 CFR 60, Appendix A\*. Where such test data are not available, the past NO<sub>x</sub> emission rate may be determined on a case-by-case basis using, for example, appropriate emission factors or data from the NO<sub>x</sub> SIP Call engine inventory.

(8) "Projected NO<sub>x</sub> emission rate" means the projected NO<sub>x</sub> emission rate in g/bhp-hr after installation of controls on an affected engine.

(9) "Projected operating hours" means the projected actual number of hours of operation per ozone season for an affected engine.

(10) "Stationary internal combustion engine" means any internal combustion engine of the reciprocating type that is either attached to a foundation at a facility or is designed to be capable of being carried or moved from one (1) location to another and remains at a single site at:

- (A) a building;

- (B) a structure;
- (C) a facility; or
- (D) an installation;

for more than twelve (12) consecutive months. Any engine that replaces an engine at a site that is intended to perform the same or similar function as the engine replaced is included in calculating the consecutive time period.

\*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Avenue NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-5-2; filed Jan 27, 2006, 11:25 a.m.: 29 IR 1899*)

### 326 IAC 10-5-3 Compliance plan

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 3. (a) After May 1, 2007, an owner or operator of a large NO<sub>x</sub> SIP Call engine shall not operate the engine in the period May 1 through September 30 of 2007, and any subsequent year unless the owner or operator complies with the requirements of a compliance plan that meets the following provisions:

- (1) The compliance plan must:
    - (A) be approved by the department; and
    - (B) demonstrate enforceable emission reductions from one (1) or more stationary internal combustion engines equal to or higher than the facility seasonal NO<sub>x</sub> 2007 tonnage reduction.
  - (2) The compliance plan must cover some or all engines at:
    - (A) an individual facility;
    - (B) several facilities; or
    - (C) all facilities in the state that are in control of the same owner or operator.
  - (3) The compliance plan must be submitted to the department by May 1, 2006.
  - (4) The compliance plan may include credit for decreases in NO<sub>x</sub> emissions from large NO<sub>x</sub> SIP Call engines due to NO<sub>x</sub> control equipment. Credit may also be included for decreases in NO<sub>x</sub> emissions from other engines due to NO<sub>x</sub> control equipment not reflected in the 2007 ozone season base NO<sub>x</sub> emissions in the NO<sub>x</sub> SIP Call engine inventory.
  - (5) The compliance plan must include the following items:
    - (A) A list of affected engines subject to the plan, including the engine's:
      - (i) manufacturer;
      - (ii) model;
      - (iii) facility location address; and
      - (iv) facility identification number.
    - (B) The projected ozone season hours of operation for each engine and supporting documentation.
    - (C) A description of the NO<sub>x</sub> emissions control installed, or to be installed, on each engine and documentation to support projected NO<sub>x</sub> emission rates.
    - (D) The past and projected NO<sub>x</sub> emission rates for each affected engine in grams per brake horsepower per hour (g/bhp-hr).
    - (E) A numerical demonstration that the emission reductions obtained from all engines included under the plan will be equivalent to or greater than the owner or operator's facility seasonal NO<sub>x</sub> 2007 tonnage reduction, based on the difference between the:
      - (i) past NO<sub>x</sub> emission rate; and
      - (ii) projected NO<sub>x</sub> emission rate;multiplied by the projected operating hours for each affected engine and taking into account any credit under subdivision (4).
    - (F) Provisions for monitoring including the frequency of the monitoring, as specified in section 4 of this rule.
    - (G) Reporting and record keeping as specified in section 5 of this rule.
- (b) The projected NO<sub>x</sub> emission rate in grams per brake horsepower per hour (g/bhp-hr) for each affected engine must be

included in a federally enforceable permit, and the permit shall contain the following:

- (1) The emission rate.
- (2) Monitoring requirements.
- (3) Record keeping.
- (4) Reporting.

*(Air Pollution Control Division; 326 IAC 10-5-3; filed Jan 27, 2006, 11:25 a.m.: 29 IR 1900)*

### **326 IAC 10-5-4 Monitoring and testing requirements**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 4. Each affected engine subject to this rule shall comply with the following requirements:

(1) Complete an initial performance test consistent with the requirements of 40 CFR 60, Appendix A\*, following installation of emission controls required to achieve the emission rate limit specified in section 3(b) of this rule.

(2) Perform periodic monitoring sufficient to yield reliable data from the relevant time period that is representative of a source's compliance with the emission rate limit specified in section 3(b) of this rule. Such periodic monitoring may include any of the following:

(A) Performance tests consistent with the requirements of:

- (i) 40 CFR 60, Appendix A\*; or
- (ii) portable monitors using ASTM D6522-00\*.

(B) A parametric monitoring program that specifies operating parameters, and their ranges, that will provide reasonable assurance that each affected engine's emissions are consistent with the requirements of section 3 of this rule.

(C) A predictive emissions measurement system that relies on automated data collection from instruments.

(D) A continuous emission monitoring system (CEMS) that complies with 40 CFR 60\* or 40 CFR 75\* as required under 326 IAC 3-5.

\*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Avenue NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. *(Air Pollution Control Division; 326 IAC 10-5-4; filed Jan 27, 2006, 11:25 a.m.: 29 IR 1900)*

### **326 IAC 10-5-5 Record keeping and reporting**

Authority: [IC 13-14-8](#); [IC 13-17-3-4](#); [IC 13-17-3-11](#)

Affected: [IC 13-15](#); [IC 13-17](#)

Sec. 5. (a) Owners or operators shall maintain all records necessary to demonstrate compliance with the requirements of this rule. Each record shall be maintained for a period of two (2) calendar years at the plant at which the subject engine is located. The records shall be made available to the department and U.S. EPA upon request. For each engine subject to the requirements of this rule, the owner or operator shall maintain the following records:

- (1) Identification and location of each engine subject to the requirements of this rule.
- (2) Calendar date of record.
- (3) The number of hours the unit is operated during each ozone season compared to the projected operating hours.
- (4) Type and quantity of fuel used.
- (5) The results of all compliance tests.
- (6) Monitoring data.
- (7) Preventative maintenance.
- (8) Corrective actions.

(b) Any owner or operator subject to the requirements of this rule shall submit results of all compliance tests to the department within forty-five (45) days after completion of the testing. *(Air Pollution Control Division; 326 IAC 10-5-5; filed Jan 27, 2006, 11:25 a.m.: 29 IR 1900)*

**Rule 6. Nitrogen Oxides Emission Limitations for Southern Indiana Gas and Electric Company**

[326 IAC 10-6-1](#)

Southern Indiana Gas and Electric Company (SIGECO)

**326 IAC 10-6-1 Southern Indiana Gas and Electric Company (SIGECO)**

Authority: [IC 13-14-8](#); [IC 13-17-3](#)

Affected: [IC 13-15](#); [IC 13-17](#); [IC 13-22](#)

Sec. 1. The following nitrogen oxides emission limitations apply to Southern Gas and Electric Company (SIGECO) Culley Unit 3 in Warrick County:

(1) Nitrogen oxides (NO<sub>x</sub>) emission limit of one hundred-thousandths (0.100) pound per million Btu (lbs/MMBtu) on a thirty (30) day rolling average emission rate.

(2) Selective catalytic reduction technology (SCR) shall be operated at all times the unit is in operation consistent with the technological limitations, manufacturers' specifications, and good operating practices for the SCR.

(3) Emission rates for NO<sub>x</sub> shall be determined using a continuous emissions monitoring system (CEMS) in accordance with reference methods specified in 40 CFR 75\*. A thirty (30) day rolling average emission rate shall be determined by calculating an arithmetic average of all hourly emission rates in lb/MMBtu for the current day and the previous twenty-nine (29) operating days. A new thirty (30) day rolling average emission rate shall be calculated for each new operating day. Each thirty (30) day rolling average emission rate shall include all startup, shutdown, and malfunction periods within an operating day.

\*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center-North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 10-6-1; filed Jul 31, 2008, 4:00 p.m.: [20080827-IR-326070309FRA](#)*)

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