Ohio Administrative Code

Rule 3745-110-03 RACT requirements and/or limitations for emissions of NOx from stationary sources.

Effective: August 1, 2025

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules, and federal statutory provisions referenced in this rule, see paragraph (AA) of rule 3745-110-01 of the Administrative Code titled "Referenced materials."]

(A) Small boilers.

The owner or operator of a small boiler shall annually perform a tune-up and maintain, in a permanently bound log book, or other equivalent electronic method that ensures data integrity, the following information:

(1) The date of the last tune-up.

(2) The name, title and affiliation of the person who performed the tune-up and made any adjustments.

(3) Any other information which the Ohio environmental protection agency may require as a condition of approval of any permit for the boiler.

(B) Mid-size boilers.

Except as otherwise provided in paragraphs (J) to (L) of this rule, on and after the compliance deadline specified by rule 3745-110-04 of the Administrative Code, no owner or operator of a mid-size boiler shall allow or permit the discharge into the ambient air of any NOx emissions in excess of the following:

Fuel Type	Tangential-fired	Wall-fired	Cyclone-fired	Spreader Stoker-fired	Overfeed Stoker-fired
Gas Only	0.08	0.08	N/A	N/A	N/A

Distillate Oil	0.10	0.10	0.10	N/A	N/A
Residual Oil	0.20	0.20	0.20	N/A	N/A
Coal (Wet Bottom)	0.30	0.30	0.30	N/A	N/A
Coal (Dry Bottom)	0.30	0.30	0.30	0.30	0.30

(C) Large boilers.

Except as otherwise provided in paragraphs (J) to (L) of this rule, on and after the compliance deadline specified by rule 3745-110-04 of the Administrative Code, no owner or operator of a large boiler shall allow or permit the discharge into the ambient air of any NOx emissions in excess of the following:

Fuel Type	Tangential-fired	Wall-fired	Cyclone-fired	Spreader Stoker-fired	Overfeed Stoker-fired
Gas Only	0.08	0.08	N/A	N/A	N/A
Distillate Oil	0.10	0.10	0.10	N/A	N/A
Residual Oil	0.20	0.20	0.20	N/A	N/A
Coal (Wet Bottom)	0.30	0.30	0.30	N/A	N/A
Coal (Dry Bottom)	0.30	0.30	0.30	0.30	0.30

(D) Very large boilers.

Except as otherwise provided in paragraphs (J) to (L) of this rule, on and after the compliance deadline specified by rule 3745-110-04 of the Administrative Code, no owner or operator of a very large boiler shall allow or permit the discharge into the ambient air of any NOx emissions in excess of the following:

Fuel Type	Tangential-fired	Wall-fired	Cyclone-fired	Spreader Stoker-fired	Overfeed Stoker-fired
Gas Only	0.08	0.08	N/A	N/A	N/A
Distillate Oil	0.10	0.10	0.10	N/A	N/A
Residual Oil	0.20	0.20	0.20	N/A	N/A

Coal (Wet Bottom)	0.30	0.30	0.30	N/A	N/A
Coal (Dry Bottom)	0.30	0.30	0.30	0.30	0.30

(E) Stationary combustion turbine.

Except as otherwise provided in paragraphs (J) to (L) of this rule, on and after the compliance deadline specified by rule 3745-110-04 of the Administrative Code, no owner or operator of a stationary combustion turbine shall allow or permit the discharge into the ambient air of any NOx emissions in excess of the following:

(1) Simple cycle turbines.

(a) Less than 3.5 megawatts.

(i) 150.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing only natural gas fuel, for both mechanical drive and electrical generation.

(ii) 200.0 ppmvd corrected to fifteen per cent oxygen, for combustion turbines firing distillate oil or diesel fuel, for both mechanical drive and electrical generation.

(b) 3.5 megawatts up to, and including 25.0 megawatts.

(i) 25.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing only natural gas fuel, for both mechanical drive and electrical generation.

(ii) 65.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing distillate oil or diesel fuel, for both mechanical drive and electrical generation.

(c) Greater than 25.0 megawatts and less than 50.0 megawatts.

(i) 25.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing only natural gas fuel.

(ii) 65.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing distillate oil or diesel fuel.

(d) Equal to or greater than 50.0 megawatts.

(i) 25.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing only natural gas fuel.

(ii) 65.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing distillate oil or diesel fuel.

(2) Combined cycle turbines.

(a) Less than 3.5 megawatts.

(i) 150.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing only natural gas fuel, for both mechanical drive and electrical generation.

(ii) 200.0 ppmvd corrected to fifteen per cent oxygen, for combustion turbines firing distillate oil or diesel fuel, for both mechanical drive and electrical generation.

(b) 3.5 megawatts up to, and including 25.0 megawatts.

(i) 25.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing only natural gas fuel, for both mechanical drive and electrical generation.

(ii) 65.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing distillate oil or diesel fuel, for both mechanical drive and electrical generation.

(c) Greater than 25.0 megawatts and less than 50.0 megawatts.

(i) 25.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing only natural gas

fuel.

(ii) 65.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing distillate oil or diesel fuel.

(d) Equal to or greater than 50.0 megawatts.

(i) 25.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing only natural gas fuel.

(ii) 65.0 ppmvd, corrected to fifteen per cent oxygen, for combustion turbines firing distillate oil or diesel fuel.

(F) Stationary internal combustion engine.

Except as otherwise provided in paragraphs (J) to (L) of this rule, on and after the compliance deadline specified by rule 3745-110-04 of the Administrative Code, no owner or operator of a stationary internal combustion engine shall allow or permit the discharge into the ambient air of any NOx emissions in excess of the following:

(1) For rich burn engines which burn only gaseous fuels, 3.0 grams per horsepower-hour for engines which are greater than five hundred horsepower.

(2) For lean burn engines which burn only gaseous fuels, 3.0 grams per horsepower-hour for engines which are greater than five hundred horsepower.

(3) For engines which burn only diesel fuel or distillate oil, 3.0 grams per horsepower-hour for engines which are greater than five hundred horsepower.

(4) For engines which burn dual fuels, 3.0 grams per horsepower-hour for engines which are greater than five hundred horsepower.

(G) Reheat furnaces.

Except as otherwise provided in paragraphs (J) to (L) of this rule, and excluding furnaces subject to a source-specific NOx emissions limitation established in this rule, on and after the compliance deadline specified by rule 3745-110-04 of the Administrative Code, no owner or operator of a reheat furnace with a maximum heat input capacity of greater than 50.0 mmBtu/hr shall allow or permit the discharge into the ambient air of any NOx emissions in excess of 0.09 lb/mmBtu.

(H) The emissions limitations specified in paragraphs (A) to (G) of this rule or pursuant to paragraph (J) of this rule shall be based on one or more of the following:

(1) The average of three one-hour stack test runs if stack testing is used to demonstrate compliance in accordance with paragraph (B) of rule 3745-110-05 of the Administrative Code.

(2) A twenty-four-hour daily heat input-weighted average if a permanent continuous emissions monitor is used to demonstrate compliance in accordance with paragraph (A) of rule 3745-110-05 of the Administrative Code. A thirty-day rolling heat input-weighted average emission rate may be used to demonstrate compliance with the appropriate emissions limitation from October first to April thirtieth.

Determine the twenty-four-hour daily heat input-weighted average NOx emission rate based on the heat input-weighted average of the block hourly arithmetic average emission rates during each twenty-four-hour daily period from twelve a.m. to twelve a.m. the following day using continuous emissions monitor data. The block hourly heat input-weighted average emission rate is calculated for each one-hour period starting with the period twelve a.m. to one a.m. and continuing through until the last period eleven p.m. to twelve a.m.; or, starting with the period twelve p.m. to one p.m. and continuing through the last period eleven a.m. to twelve p.m. The thirty-day rolling heat input-weighted average is the average of the twenty-four-hour daily heat input-weighted NOx emission rate.

(3) A thirty-day heat input-weighted average emission rate based on the twenty-four-hour daily heat input-weighted averages if a temporary continuous emissions monitor is used to demonstrate compliance in accordance with paragraph (C) of rule 3745-110-05 of the Administrative Code.

Determine the twenty-four-hour daily heat input-weighted average NOx emission rate based on the heat input-weighted average of the block hourly arithmetic average emission rates during each twenty-four-hour daily period from twelve a.m. to twelve a.m. the following day using continuous emissions monitor data. The block hourly heat input-weighted average emission rate is calculated for each one-hour period starting with the period twelve a.m. to one a.m. and continuing through until the last period eleven p.m. to twelve a.m.; or, starting with the period twelve p.m. to one p.m. and continuing through the last period eleven a.m. to twelve p.m.

(4) A daily, twenty-four-hour arithmetic average of all the block hourly mass emission rates (in pounds per hour) or concentrations (in parts per million by volume) during each calendar day, if a permanent continuous emissions monitor is used to demonstrate compliance in accordance with paragraph (A) of rule 3745-110-05 of the Administrative Code. The block hourly mass emission rate or concentration is calculated for each one-hour period starting with the period twelve a.m. to one a.m. and continuing through until the last period eleven p.m. to twelve a.m.; or, starting with the period twelve p.m. to one p.m. and continuing through the last period eleven a.m. to twelve p.m.

(I) Emission averaging programs.

(1) An owner or operator of a source which is subject to this chapter may propose an emission averaging program in lieu of the applicable emissions limitations specified in paragraphs (A) to (G) of this rule or established in accordance with paragraph (J) of this rule. Both affected sources under rule 3745-110-02 of the Administrative Code and non-affected sources are allowed to be utilized in the averaging program, to the extent that reductions are real, quantifiable and enforceable and are in excess of any state or federal requirements. Any proposed emission averaging program shall comply with all of the following requirements:

(a) Specify the RACT emissions limitation for each affected source in rule 3745-110-02 of the Administrative Code involved in the emission averaging program.

(b) Specify a clearly enforceable proposed emissions limitation for each source or group of sources involved in the emission averaging program.

(c) Result in actual reductions in NOx emissions that are equal to or greater than the actual emission

reductions that would be required by this rule if an emission averaging program were not employed.

(d) Achieve compliance with the proposed emissions limitation in accordance with the compliance deadlines in rule 3745-110-04 of the Administrative Code.

(e) Reductions allowed under the emission averaging program are those reductions that are real, quantifiable and enforceable and are in excess of any state or federal requirements. For purposes of determining the reductions, the actual emissions in tons per year, from all sources included in the averaging program, are subtracted from the lesser of either the actual annual average emissions prior to when the actual reduction occurs or the allowable emissions. A shutdown is creditable only to the extent that the owner or operator can demonstrate to the satisfaction of the director that the shutdown does not correspond to load-shifting or other activity which results in or could result in an equivalent or greater emission increase and that the reduction accounts for any increase in NOx emissions from other sources as a result of the shutdown.

(f) Owners or operators must submit a report to the director by March thirty-first of each year demonstrating that the equivalent reduction requirement in paragraph (I)(1)(c) of rule 3745-110-03 of the Administrative Code has been achieved for the previous calendar year.

(2) Any emission averaging program approved by the director will be submitted to and approved by the United States environmental protection agency as a revision of the Ohio state implementation plan. An emission averaging program is not federally enforceable until the United States environmental protection agency approves the program as part of the Ohio state implementation plan.

(J) RACT studies for stationary sources.

(1) For any affected source of NOx emissions at an affected facility that is not subject to the emissions limitations specified in paragraphs (A) to (G) of this rule and is not exempt under paragraph (K) of this rule, or that is subject to the emissions limitations specified in paragraphs (A) to (G) of this rule but the owner or operator claims that an applicable emissions limitation is technically infeasible or economically unreasonable (not cost-effective) to achieve, the owner or operator shall conduct a detailed engineering study to determine the technical and economic

feasibility of reducing the NOx emissions and to define RACT for the source. The detailed engineering study shall be conducted by an engineering consulting firm or other person or persons experienced in the field of air pollution control, and provide the following information:

(a) The complete facility name, Ohio EPA air program facility identification number, and address.

(b) The name, title, address and telephone number of the owner or operator's representative within the company who is the contact person for this facility regarding the engineering study and affected sources.

(c) The name, title, address and telephone number of the official who is responsible for approval of the engineering study.

(d) The standard industrial classification code and source classification code numbers which are applicable to the facility's operation.

(e) The following general information for each affected source:

(i) Ohio environmental protection agency application number.

(ii) Company identification and Ohio EPA emissions unit identification number.

(iii) Source description.

(iv) Month and year installed.

(v) Normal operating schedule (hours per day, days per week, and weeks per year).

(vi) Annual production rates for each of the three full calendar years preceding the submission of a RACT study under paragraph (J) of this rule.

(vii) Average and maximum daily production rates for each of the three full calendar years preceding the submission of a RACT study under paragraph (J) of this rule.

(viii) The type of control equipment employed and the date installed.

(f) A plot plan which shows the general layout of the facility and the affected source.

(g) The following emissions data for each affected source:

(i) Average daily NOx emissions (pounds per day of operation) based upon the highest average daily production rate for each of the three full calendar years preceding the submission of a RACT study under paragraph (J) of this rule or any other year that may be representative of the highest average daily emissions.

[Comment: The average daily production rate for a calendar year may be calculated in the following manner:

Average daily production rate = [(total production rate during the calendar year) / (number of days production occurred during the calendar year)]

Repeat the calculation for each of the three calendar years preceding the submission of a RACT study under paragraph (J) of this rule. The highest value of these three years is the representative value used to calculate the average daily NOx emissions per year.]

(ii) Maximum daily NOx emissions (pounds per day of operation) based upon the highest maximum daily production rate for each of the three full calendar years preceding the submission of a RACT study under paragraph (J) of this rule or any year that may be more representative of the highest maximum daily emissions.

(iii) Annual NOx emissions (tons per year) based upon the highest annual production rate for each of the three full calendar years preceding the submission of a RACT study under paragraph (J) of this rule or any year period that may be more representative of the annual production rate.

(iv) Documentation of the efficiency of the existing control equipment.

(v) Documentation of any emissions testing which has been performed.

(h) A detailed discussion of the technical feasibility of employing each of the following types of control measures for each affected source (or combination of sources):

(i) Low-NOx burners.

(ii) Close coupled or separated over-fire ports.

(iii) Flue gas recirculation.

(iv) Low NOx burners with external flue gas recirculation.

(v) Burners out of service.

(vi) Steam/water injection.

(vii) Dry low-NOx burners.

(viii) Ignition timing retard.

(ix) Separate circuit after-cooling.

(x) Fuel emulsification.

(xi) Selective noncatalytic reduction.

(xii) Nonselective catalytic reduction.

(xiii) Selective catalytic reduction using urea ammonia and methane as reducing agents.

(xiv) Incineration (for sources other than boilers).

(xv) Scrubbing (for sources other than boilers).

(xvi) Process modification.

(xvii) Fuel switching.

(xviii) Adjustment of air/fuel ratio (for internal combustion engines only).

(xix) Low excess air.

(xx) Mid-kiln firing.

(xxi) Mid-kiln air injection.

(xxii) Gaseous fuels reburn.

(xxiii) Any other such RACT alternatives not listed in paragraph (J)(1)(h) of this rule that may be applicable to an affected source, or as are proposed by the owner or operator.

A detailed engineering discussion is not required for those control measures which are not applicable to a particular source.

(i) For each type of control measure that is determined to be technically feasible, an estimate of the control efficiency that can be achieved.

(j) For each control measure that is determined to be technically feasible, an estimate of the capital cost, annualized cost (including capital and operating costs), and the cost-effectiveness (annual dollars per ton of NOx removed annually).

(k) A comparison and discussion of the advantages and disadvantages of the control options that are determined to be technically feasible.

(l) A recommended definition of RACT for the source, including one or more of the following:

(i) Enforceable production limitations.

(ii) Emissions limitations.

(iii) Control efficiencies.

(iv) Operating requirements.

(m) An expeditious schedule for implementing the recommended definition of RACT, including milestones for awarding contracts, initiating construction, completing construction, and performing emissions testing, if necessary, to demonstrate compliance with the approved definition of RACT.

(n) Clean and detailed documentation of all calculations of the NOx emissions, including all assumptions made.

(o) Capital and operating costs and the cost-effectiveness estimates calculated in a manner consistent with the most recent edition of the "United States environmental protection agency air pollution control cost manual."

(2) For any source that is subject to an emissions limitation contained in paragraphs (A) to (G) of this rule, if the director approves a definition of RACT and a schedule of compliance for the source pursuant to paragraph (J) of this rule, the source is no longer subject to the emissions limitations contained in paragraphs (A) to (G) of this rule.

For any source that is subject to an emissions limitation contained in paragraph (A) to (G) of this rule, if the director disapproves a definition of RACT and a schedule of compliance for the source pursuant to paragraph (J) of this rule, or if the RACT study determines the applicable NOx emissions limitations contained in paragraphs (A) to (G) of this rule is technically feasible and economically reasonable (i.e., cost-effective) to achieve, or if the director disapproves of a variance application pursuant to paragraph (L) of this rule, the source remains subject to the emissions limitations contained in paragraphs (A) to (G) of this rule and the applicable compliance deadline specified in paragraph (B) of rule 3745-110-04 of the Administrative Code.

(3) If, within the five years prior to submission of a RACT study under paragraph (J) of this rule, the Ohio environmental protection agency has defined best available technology, pursuant to section 3704.01 of the Revised Code, for NOx emissions from a source which is subject to paragraph (J) of this rule, and the owner or operator is employing or has committed to employ the best available technology, the owner or operator may provide the following information to the director in satisfaction of paragraph (J)(1) of this rule:

(a) All information required by paragraphs (J)(1)(a), (J)(1)(b), (J)(1)(d), (J)(1)(e) and (J)(1)(g) of this rule.

(b) Copies of the documents and technical information that support the existing best available technology determination.

(c) The name, title, address and telephone number of the official who is responsible for the information submitted in accordance with paragraph (J)(4) of this rule.

If upon review of this information, the director determines that the information does not or may not indicate that the definition of best available technology satisfies the requirements of this chapter, the director will notify the owner or operator, and the owner or operator shall conduct a full RACT engineering study in accordance with paragraph (J)(1) of this rule.

(4) Any definition of RACT and schedule of compliance for an affected source that are approved by the director will be submitted to the United States environmental protection agency as a revision of the Ohio state implementation plan.

(K) Paragraphs (A) to (G) of this rule shall not apply to the following sources:

(1) Any industrial boiler having a maximum heat input of less than or equal to twenty mmBtu/hr.

(2) Any standby boiler, stationary internal combustion engine, or stationary combustion turbine which operates less than five hundred hours during any consecutive twelve-month period. However, the owner or operator of the standby engine, boiler, or turbine shall maintain for a period of not less

than three years, in a bound log book, or other format acceptable to the director, a list of the dates and number of hours the standby engine, boiler, or turbine operated.

(3) Any stationary internal combustion engine having an energy output capacity of less than five hundred horsepower.

(4) Any stationary combustion turbine having an energy input capacity of less than twenty mmBtu/hr.

(5) Any start-up unit located at an electric generating facility.

(6) Any black start unit located at an electric generating facility.

(7) Any peaking unit.

(8) Any space heating unit.

(9) Any auxiliary boiler.

(10) Any CO boiler.

(11) Any research and development source.

(12) Any jet engine test cell.

(13) Any engine testing operation.

(14) Any air pollution control device.

(15) Any municipal waste combustor.

(16) Any source other than a boiler, gas turbine or internal combustion engine that has the potential to emit as follows:

(a) For sources not located Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, or Summit county, less than twenty-five tons per year of NOx emissions.

(b) For sources located in Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, or Summit county, less than ten tons per year of NOx emissions.

[Comment: For any affected facility that has more than one source claiming this exemption, the Ohio environmental protection agency may require an evaluation of the sources collectively as a part of a RACT study to be submitted in accordance with paragraph (J) of this rule.]

(17) Any source issued a valid permit-to-install or permit-to-install and operate by Ohio environmental protection agency that restricts such source to the following:

(a) For sources not located Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, or Summit county, less than twenty-five tons per year of NOx emissions.

(b) For sources located in Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, or Summit county, less than ten tons per year of NOx emissions.

[Comment: For any affected facility that has more than one source claiming this exemption, the Ohio environmental protection agency may require an evaluation of the sources collectively as a part of a RACT study to be submitted in accordance with paragraph (J) of this rule.]

(18) Any source that has been issued a permit-to-install that is subject to best available control technology or lowest achievable emission rate standards that was established no more than five full calendar years preceding the submission of a RACT study under paragraph (J) of this rule.

(19) Any source whose utilization in less than ten per cent of its capacity factor on an annual average basis over a three-year rolling period and less than twenty per cent of its capacity factor in any year of the three-year rolling period.

(20) The following sources located at "Kent State University Heating Plant" (1667040085) or any

subsequent owner or operator of the "Kent State University Heating Plant" facility located at 1501 Ted Boyd Drive, Kent, Ohio. Emission units B008 and B010 during periods when conducting black start or island mode events (due to emergency episodes, emergency readiness testing events or maintenance upgrade events) that may result in bypassing control equipment provided the owner or operator complies with the following requirements during these events.

(a) The owner or operator takes steps to minimize the amount of time the emissions unit's control equipment is bypassed. For each emissions unit, no more than eight episodes or events are conducted per year and have a duration not exceeding three hours per event bypassing control equipment.

(b) The owner or operator maintains records of the following information for each emissions unit for each episode or event conducted:

(i) Date, time and duration for each episode or event.

(ii) Date, time and duration of control equipment bypass.

(c) The owner or operator submits the following notifications and reports:

(i) Written notification of episodes or events including date and type of the episode that occurred or event to be conducted (black start, island mode). Email notification shall be submitted to the district office or local air agency at least one day prior to the scheduled event or within twenty-four hours after conclusion of an episode.

(ii) Submit quarterly reports that identify any days when emergency episodes or scheduled events occurred during the reporting period, that includes the information maintained in accordance with this paragraph.

(L) Any affected facility that cannot comply with the applicable requirements set forth in this rule because of extraordinary reasons beyond the affected facility's reasonable control may apply in writing to the director for a variance. The variance application shall be prepared in accordance with the provisions specified in rule 3745-31-09 of the Administrative Code and shall only be granted provided the requirements of paragraph (C)(1)(b) of rule 3745-31-09 of the Administrative Code are

met. No variance may be granted under this paragraph that does not provide for eventual compliance with this rule.

(M) Paragraph (N) through (V) of this rule contain requirements established in accordance with the RACT study requirements contained in paragraph (J) of this rule.

(N) On and after May 12, 2011, "Cleveland-Cliffs Cleveland Works LLC" (1318001613) or any subsequent owner or operator of the "Cleveland-Cliffs Cleveland Works LLC" facility located at 3060 Eggers avenue, Cleveland, Ohio shall comply with the following NOx emissions limitations:

Emissions Unit	Description	NOx Emissions Limitations
P049	Anneal - North	0.10 lb/mmBtu
P050	Anneal - South	0.10 lb/mmBtu
P071	Continuous Galvanizing Line	0.23 lb/mmBtu
P903	C5 Blast Furnace: Stoves	0.06 lb/mmBtu
P904	C6 Blast Furnace: Stoves	0.06 lb/mmBtu
P905 and P906	No. 1 BOF: Ladle Preheaters	0.10 lb/mmBtu
P925 and P926	No. 2 BOF: Ladle Preheaters	0.10 lb/mmBtu
P046	Slab-Pusher Reheat Furnace No. 1 rated at 602.6 mmBtu/hr	0.35 lb/mmBtu
P047	Slab-Pusher Reheat Furnace No. 2 rated at 602.6 mmBtu/hr	0.35 lb/mmBtu
P048	Slab-Pusher Reheat Furnace No. 3 rated at 602.6 mmBtu/hr	0.35 lb/mmBtu

(O) On and after May 12, 2011, "Republic Steel" (0247080229) or any subsequent owner or operator of the "Republic Steel" facility located at 1807 East 28th street, Lorain, Ohio shall comply with the following NOx emissions limitations:

Emissions Unit	Description	NOx Emissions Limitations
P071	Walking beam furnace, rated at two hundred six mmBtu/hr	0.15 lb/mmBtu
P081	Bloom reheat furnace, rated at 421.6 mmBtu/hr	0.132 lb/mmBtu

(P) "U. S. Steel Seamless Tubular Operations, LLC" (0247080961) or any subsequent owner or operator of the "U. S. Steel Seamless Tubular Operations, LLC" facility located at 2199 East 28th street, Lorain, Ohio shall comply with the NOx emission limitations as follows:

Compliance date	Emissions Unit	Description	NOx Emissions Limitations
On or after May 12, 2011	P003	Number 3 seamless mill Q and T tempering furnace, rated at one hundred twelve mmBtu/hr	0.068 lb/mmBtu
On or after May 12, 2011	P037	Number 3 seamless mill number 2 reheat furnace, rated at 58.8 mmBtu/hr	0.15 lb/mmBtu
On or after May 12, 2011	P040	Number 4 seamless mill reheat furnace, rated at 50.9 mmBtu/hr	0.15 lb/mmBtu
On or after June 18, 2020	P039	Number 4 seamsless mill rotary reheat furnace, rated at 195.4 mmBtu/hr	0.08 lb/mmBtu
On or after June 18, 2020	P035	Number 3 seamless mill rotary reheat furnace, rated at 296.0 mmBtu/hr	0.12 lb/mmBtu, compliance with this emissions limitation is demonstrated in accordance with the test methods and procedures specified in paragraphs (C) and (H)(3) of this rule or rule 3745-110-05 if the Administrative Code.

(Q) On and after July 18, 2013, "Charter Steel" (0387000376) or any subsequent owner or operator of the "Charter Steel" facility located at 4300 East 49th street, Cuyahoga Heights, Ohio : NOx emissions for bar mill reheat furnace PO29, rated at 165.0 mmBtu/hr, shall not exceed 0.11 lb/mmBtu.

(R) "BASF Corporation" (0247040195) or any subsequent owner or operator of the "BASF Corporation" facility located at 120 Pine Street, Elyria, Ohio; shall comply with the NOx emission limitations as follows:

(1) [Reserved.]

(2) On and after June 18, 2020, the NOx emissions from calciners P009, P010, P080, P092, P102, and P103, shall meet the following requirements and be vented to either of the following:

(a) The TriMer caustic scrubber, the emissions from which are not to exceed a controlled NOx emissions limitation of 250.0 ppmvd, as a three-hour block average, based on the average of three, one-hour stack test runs, if stack testing is used to demonstrate compliance.

(b) A selective catalytic reduction system, the emissions from which are not to exceed a controlled NOx emissions limitation of 200.0 ppmvd, as a three-hour block average, except that if a continuous emission monitoring system, which complies with the requirements of 40 CFR Part 60, is employed by the owner or operator to demonstrate ongoing compliance with the allowable NOx emissions limitation, the averaging time for the NOx emissions limitation is a twenty-four-hour arithmetic average for each calendar day. The arithmetic average is based upon CEMS data for only those hours during which one or more emissions units are operating and, as a result, could be based upon less than twenty-four hours. (If a CEMS is employed, pursuant to 40 CFR Part 60.13(h), at least one valid data point in each fifteen-minute quadrant of the hour in which the emissions unit operates is required to calculate the hourly average emission rate. Also, if more than one valid data point is obtained during a fifteen-minute quadrant, all of the valid data points obtained are to be used to calculate the hourly average emission rate.)

[Comment: The above-mentioned NOx emissions limitations do not include the NOx emissions from the combustion of natural gas for the indirect heating of each calciner. The NOx RACT study approved by Ohio EPA on February 11, 2010 contained calculations supporting the conclusion that NOx emissions from the combustion of natural gas for the indirect heating of each calciner to be less than ten pounds per day.]

(S) On and after July 18, 2013, "Carmeuse Lime, Inc., Grand River Operation" (0243030257) or any subsequent owner or operator of the "Carmeuse Lime, Inc., Grand River Operation" facility located at 15 Williams street, Grand River, Ohio : NOx emissions for Rotary lime kilns P001 and P002 (kilns #4 and #5), with a maximum process weight rate of 54.5 tons per hour of limestone per kiln, shall not exceed a rate of 6.0 pounds per ton of lime produced.

(T) On and after July 18, 2013, "Ross Incineration Services, Inc.," (0247050278) or any subsequent owner or operator of the "Ross Incineration Services, Inc.," facility located at 36790 Giles road, Grafton, Ohio : NOx emissions for Hazardous waste incinerator N001, with a rated maximum capacity of 26,057.0 pounds per hour of waste materials, shall not exceed 158.1 pounds per hour, based on a rolling twenty-four hour average.

(U) [Reserved.]

(V) On and after June 18, 2020, "The University of Akron," (1677010091) or any subsequent owner or operator of the "The University of Akron," facility located at 145 Hill Street, Akron, Ohio shall comply with the following NOx emissions limitations when burning number two fuel oil, and shall not burn number two fuel oil for more than a maximum of fourteen days per calendar year:

Emissions Unit	Description	NOx Emissions Limitations
B031	Boiler, rated at 89.1 mmBtu/hr	0.18 lb/mmBtu
B033	Boiler, rated at 89.1 mmBtu/hr	0.20 lb/mmBtu