

OFFICIAL COMPILATION OF CODES, RULES AND REGULATIONS OF THE STATE OF NEW YORK
TITLE 6. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CHAPTER III. AIR RESOURCES
SUBCHAPTER A. PREVENTION AND CONTROL OF AIR CONTAMINATION AND AIR POLLUTION
SUBPART 220-1: PORTLAND CEMENT PLANTS

(Statutory authority: Environmental Conservation Law §§ 1-0101, 3-0301, 19-0103, 19-0105, 19-0301, 19-0305, 19-0311)

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§220-1.1 Definitions

(a) For the purpose of this Subpart, the general definitions of Part 200 of this Title apply.

(b) For the purpose of this Subpart, the following definitions also apply:

(1) *Dry process plant.* A portland cement plant where the raw material kiln feed entering the kiln in a powder form has a moisture content of one percent or less by weight.

(2) *Feed to the kiln.* The weight of all materials, excluding fuels and uncombined water, introduced into the kiln during the time when a stack sample is being taken to determine compliance with sections 220-1.2 and 220-1.3 of this Subpart.

(3) *Clinker.* The product of a portland cement kiln from which finished cement is manufactured by milling and grinding.

(4) *Portland cement kiln.* A system, including any solid, gaseous, or liquid fuel combustion equipment, used to calcine and fuse raw materials (including limestone and clay) to produce clinker.

(5) *Portland cement plant.* Any facility manufacturing portland cement by either the wet or dry process.

(6) *Wet process plant.* A portland cement plant where the raw material kiln feed enters the kiln in the form of a water slurry of approximately 30 to 40 percent water by weight.

§220-1.2 Particulate emissions from existing kilns and clinker coolers

Except as provided in section 220-1.3 of this Subpart, no person shall cause or allow emission of particulates to the outdoor atmosphere from a portland cement kiln or clinker cooler in excess of the following emission rates:

(a) for process weight per hour less than or equal to 100,000 pounds, $E = 0.024P^{0.665}$ where E is the emission rate in pounds per hour and P is the process weight per hour; or

(b) for process weight per hour in excess of 100,000 pounds, 0.05 grains per standard cubic foot of gas on a dry basis.

§220-1.3 Particulate emissions from new or modified kilns and clinker coolers

(a) No person will cause or allow emission of particulates to the outdoor atmosphere in excess of 0.30 pounds per ton of feed to the kiln from a portland cement kiln, portland cement kiln with in-line raw mill, and/or related air cleaning device which commenced construction or modification after August 17, 1971.

(b) No person will cause or allow emission of particulates to the outdoor atmosphere in excess of 0.10 pounds per ton of feed to the kiln from a portland cement clinker cooler and/or related air cleaning device which commenced construction or modification after August 17, 1971.

§220-1.4 Opacity limits for portland cement processes

(a) Except as provided in subdivision (b) of this section, no person will cause or allow emissions to the outdoor atmosphere of any material that has an average six-minute opacity of 20 percent or greater, except uncombined water, from a portland cement kiln, portland cement kiln with in-line raw mill, clinker cooler, or any other confined processes at a portland cement plant.

(b) No person will cause or allow emissions to the outdoor atmosphere of any material that has an average six-minute opacity of 10 percent or greater, except uncombined water, from a clinker cooler, raw mill system, finish mill system, raw mill dryer, raw material storage, clinker storage, finished product storage, conveyor transfer points, bagging and bulk loading and unloading systems which commenced construction or modification after August 17, 1971.

(c) Any person who owns or operates an area, parking lot, clinker gallery, railcar loading shed, conveyor tunnel, access road, stockpile, building opening or refuse disposal area, at a portland cement plant that has the potential to emit visible emissions for one continuous hour or longer, must apply corrective measures to eliminate such potential.

§220-1.5 Particulate emissions from dust dumps

(a) The owner or operator of any portland cement dust dump will operate such dust dump in a manner which will minimize the horizontal dimensions of the working face.

(b) In cases where the dump is within 1,500 feet of any receptor, the owner and/or operator must seal the dust dump either by crusting or backfill twice yearly.

(c) If dumping procedures do not provide adequate protection from dust reentrainment, the owner and/or operator must install a windbreak. If visible emissions still reach the property line, the owner and/or operator must precondition the waste dust.

§220-1.6 Gaseous emissions from kiln stacks

(a) The owner or operator of a portland cement kiln may purchase and use fuel with sulfur content exceeding the fuel sulfur limitations required by Subpart 225-1 of this Title, provided that the burning of such fuel will not result in emissions of sulfur compounds (expressed as sulfur dioxide) to the outdoor atmosphere at a rate greater than would result through the use of fuels otherwise mandated by Subpart 225-1.

(b) The owner or operator of a portland cement kiln must submit a reasonably available control technology (RACT) analysis to the department for emissions of oxides of nitrogen (NO_x) from the kiln that proposes a RACT emission limit(s), and identifies the procedures and monitoring equipment to be used to demonstrate compliance with the proposed RACT emission limit(s). The RACT emissions limit(s) shall be expressed in pounds of NO_x per ton of clinker produced.

(1) By December 1, 2010 the owner or operator of a portland cement kiln that was in operation prior to the effective date of this Subpart must submit a RACT analysis, and an application for a permit modification in accordance with the provisions of Subpart 201-6 of this Title unless the existing NO_x control equipment and emission limit(s) are determined to be RACT. RACT, as approved by the department, must be implemented by July 1, 2012.

(2) The owner or operator of a portland cement kiln that was not in operation prior to the effective date of this Subpart must submit a RACT analysis prior to start up of the kiln. RACT, as approved by the department, must be implemented upon start up.

(3) RACT analyses must include the available NO_x control technologies, the projected effectiveness of the technologies considered, the costs for installation and operation for each of the technologies, and the technology and the appropriate emission limit(s) selected as RACT considering the costs for installation and operation of the technology. For a portland cement kiln that was in operation prior to the effective date of this Subpart and for which the existing NO_x control equipment has been determined to not be RACT, the RACT analysis must also include a schedule for installation of control equipment.

(4) Approved RACT determinations will be submitted by the department to the United States Environmental Protection Agency for approval as separate State Implementation Plan revisions.

(c) The owner or operator of a portland cement kiln may opt to comply with subdivision (b) of this section and section 220-1.7(c) of this Subpart by shutting down the kiln. An owner or operator choosing this option shall submit an application for a federally enforceable permit modification by December 1, 2010 wherein the owner or operator commits to permanently shut down the kiln by July 1, 2012.

§220-1.7 Source monitoring, recordkeeping and reporting

(a) The owner or operator of a portland cement kiln or clinker cooler must maintain a file of daily clinker production rates, kiln feed rates, and any particulate emission measurements. The production and feed rates must be summarized monthly. The records and summary must be retained for at least five years following the date of such records and summaries and must be made available for inspection by the department during normal business hours.

(b) The owner or operator of a portland cement kiln at a dry process plant or clinker cooler at either a dry or wet process plant, subject to section 220-1.4 (a) or (b) of this Subpart, must install, maintain, calibrate daily, and operate a device, approved by the department, for continuously measuring and recording the opacity of emissions from such kiln or clinker cooler. If two or more kilns are vented through a single stack, an opacity monitor in the common stack would satisfy the requirements of this subdivision. Records of opacity must be retained for at least five years following the date on which they are made.

(c) The owner or operator of a portland cement kiln shall demonstrate compliance with the NO_x RACT emission limit(s) established in section 220-1.6(b) of this Subpart by measuring NO_x emissions with a continuous emissions monitoring system (CEMS). The CEMS shall comply with the requirements of subdivision (d) of this section or with equivalent requirements approved by the department. Any approved equivalent CEMS requirements will be

submitted by the department to the United States Environmental Protection Agency for approval as separate State Implementation Plan revisions.

(d) *CEMS requirements.*

(1) The owner or operator of a portland cement kiln shall install, calibrate, evaluate, operate, and maintain a CEMS, in accordance with the provisions of 40 CFR part 75, for measuring NO_x at locations approved in the CEMS certification protocol under paragraph (3) of this subdivision, and shall record the output of the system.

(2) As part of its application for a permit or permit modification, the owner or operator of a portland cement kiln shall submit for department approval a CEMS monitoring plan that complies with the provisions of 40 CFR part 75, subpart F.

(3) The owner or operator of a portland cement kiln shall submit for department approval a CEMS certification protocol at least 60 days prior to CEMS certification testing. The certification protocol shall include the location of and specifications for each instrument or device, as well as procedures for calibration, operation, data evaluation, and data reporting.

(4) The procedures in subparagraphs (i) through (v) of this paragraph shall be used for determining compliance with the NO_x RACT emission limit established under section 220-1.6(b) of this Subpart.

(i) The owner or operator of a portland cement kiln shall determine compliance daily on a 30 day rolling average basis. The 30 day rolling averages shall be calculated by dividing 30 day total NO_x emissions by 30 day total clinker production. Only days when the kiln operates shall be included in the 30 day rolling averages.

(ii) Along with any specific additional data requirements mandated by the department for a particular portland cement kiln, annual re-certifications, quarterly accuracy, and daily calibration drift tests shall be performed in accordance with 40 CFR part 75, subpart C.

(iii) When NO_x emissions data are not obtained because of CEMS downtime, or for periods when no valid CEMS data is available, the owner or operator of a portland cement kiln shall use 40 CFR part 75, subpart D, data substitution procedures.

(5) In addition to the requirements of subparagraphs (i) through (iii) of this paragraph, the owner or operator of a portland cement kiln shall comply with the CEMS recordkeeping and reporting requirements of 40 CFR part 75, subparts F and G.

(i) The owner or operator of a portland cement kiln shall notify the department of the planned initial start-up date of any new CEMS.

(ii) Emissions, monitoring, and operating parameter records or measurements required by this Subpart and any additional parameters required by the department shall be maintained for at least five years and made available to the department upon request.

(iii) On a semi-annual basis, the owner or operator of a portland cement kiln shall tabulate and summarize applicable emissions, monitoring, and operating parameter measurements recorded during the preceding six months, and submit these records to the department. These records shall be submitted in a format acceptable to the department and shall include:

(a) the 30 day rolling average NO_x emissions as specified under paragraph (4) of this subdivision;

(b) identification of the operating hours when NO_x emissions data are not included in a calculation of the 30 day rolling average emissions and the reasons for not including that data;

(c) a comparison of the NO_x emissions to the NO_x RACT emissions limit(s);

(d) type and amount of fuel burned on a daily basis and the as burned heat content of the fuel;

(e) the total daily NO_x emissions and total daily clinker production; and

(f) the results of CEMS accuracy assessments as required by 40 CFR part 75, appendix A and B and any additional data quality information required by the department.

(e) Protocols, reports, summaries, schedules, and any other information required to be submitted to the department under provisions of this Subpart must be sent (in either hardcopy or electronically) as follows:

(1) one copy to the Division of Air Resources, New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233; and

(2) one copy to the regional air pollution control engineer at the appropriate regional office of the department.

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TITLE 6. DEPARTMENT OF ENVIRONMENTAL CONSERVATION
CHAPTER III. AIR RESOURCES
SUBCHAPTER A. PREVENTION AND CONTROL OF AIR CONTAMINATION AND AIR POLLUTION
SUBPART 220-2: GLASS PLANTS

(Statutory authority: Environmental Conservation Law §§ 1-0101, 3-0301, 19-0103, 19-0105, 19-0301, 19-0305, 19-0311)

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§220-2.1 Applicability.

The requirements of this Subpart apply to any glass plant that is a major facility of oxides of nitrogen (NO_x).

§220-2.2 Definitions.

(a) For the purpose of this Subpart, the definitions of Parts 200 and 201 of this Title apply.

(b) For the purpose of this Subpart, the following definitions also apply:

(1) *Glass melting furnace.* A refractory vessel in which raw materials are charged, melted at high temperature, refined, and conditioned to produce molten glass. The furnace includes foundations, superstructure and retaining walls, raw material charger systems, heat exchangers, melter cooling system, exhaust system, refractory brick work, fuel supply and electrical boosting equipment, integral control systems and instrumentation, and appendages for conditioning and distributing molten glass to forming apparatuses. The forming apparatuses, including the float bath used in flat glass manufacturing and flow channels in wool fiberglass and textile fiberglass manufacturing, are not considered part of the glass melting furnace.

(2) *Glass plant.* Any facility using a glass melting furnace to manufacture glass.

(3) *Glass produced or glass production.* The weight of glass removed from a glass melting furnace.

§220-2.3 Gaseous emissions from glass melting furnaces.

(a) The owner or operator of a glass melting furnace located at a glass plant that meets the applicability requirements of section 220-2.1 of this Subpart must submit a reasonably available control technology (RACT) analysis to the department for emissions of oxides of nitrogen (NO_x) from the furnace that proposes a RACT emission limit(s), and identifies the procedures and monitoring equipment to be used to demonstrate compliance with the proposed RACT emission limit(s). The RACT emissions limit(s) shall be expressed in pounds of NO_x per ton of glass produced.

(1) By December 1, 2010 the owner or operator of a glass melting furnace that was in operation prior to the effective date of this Subpart must submit a RACT analysis, and an application for a permit modification in accordance with the provisions of Subpart 201-6 of this Title unless the existing NO_x control equipment and emission limit(s) are determined to be RACT. RACT, as approved by the department, must be implemented by July 1, 2012.

(2) The owner or operator of a glass melting furnace that was not in operation prior to the effective date of this Subpart must submit a RACT analysis prior to start up of the furnace. RACT, as approved by the department, must be implemented upon start up.

(3) RACT analyses must include the available NO_x control technologies, the projected effectiveness of the technologies considered, the costs for installation and operation for each of the technologies, and the technology and the appropriate emission limit(s) selected as RACT considering the costs for installation and operation of the technology. For a glass melting furnace that was in operation prior to the effective date of this Subpart and for which the existing NO_x control equipment has been determined to not be RACT, the RACT analysis must also include a schedule for installation of control equipment.

(4) Approved RACT determinations will be submitted by the department to the United States Environmental Protection Agency for approval as separate State Implementation Plan revisions.

(b) The owner or operator of a glass melting furnace may opt to comply with subdivision (a) of this section and section 220-2.5(b) of this Subpart by shutting down the furnace. An owner or operator choosing this option shall submit an application for a federally enforceable permit modification by December 1st, 2010 wherein the owner or operator commits to permanently shut down the furnace by July 1st, 2012.

§220-2.4 Source monitoring, recordkeeping, and reporting.

(a) The owner or operator of a glass melting furnace located at a glass plant that meets the applicability requirements of section 220-2.1 of this Subpart must maintain a file of daily glass production rates. The production rates must be summarized monthly. Glass production records must be retained for at least five years following the date of such records and must be made available for inspection by the department during normal business hours.

(b) The owner or operator of glass melting furnace shall demonstrate compliance with the NO_x RACT emission limit(s) established in section 220-2.3(a) of this Subpart by measuring NO_x emissions with a CEMS. The CEMS shall comply with the requirements of subdivision (c) of this section or with equivalent requirements approved by the department. Any approved equivalent CEMS requirements will be submitted by the department to the United States Environmental Protection Agency for approval as separate State Implementation Plan revisions.

(c) *CEMS requirements.*

(1) The owner or operator of a glass melting furnace shall install, calibrate, evaluate, operate, and maintain a CEMS, in accordance with the provisions of 40 CFR part 60, appendices A, B and F, for measuring NO_x at locations approved in the CEMS certification protocol under paragraph (3) of this subdivision, and shall record the output of the system.

(2) As part of its application for a permit or permit modification, the owner or operator of a glass melting furnace shall submit for department approval a CEMS plan.

(3) The owner or operator of a glass melting furnace shall submit for department approval a CEMS certification protocol at least 60 days prior to CEMS certification testing. The certification protocol shall include the location of and specifications for each instrument or device, as well as procedures for calibration, operation, data evaluation, and data reporting.

(4) The procedures in subparagraphs (i) through (v) of this paragraph shall be used for determining compliance with the NO_x RACT emission limit established under section 220-2.3(a) of this Subpart.

(i) The owner or operator of a glass melting furnace shall determine compliance daily on a 30 day rolling average basis. The 30 day rolling averages shall be calculated by dividing 30 day total NO_x emissions by 30 day total glass production. Only days when the furnace operates shall be included in the 30 day rolling averages.

(ii) At a minimum, valid CEMS data shall be obtained for 90 percent of the operating hours in each calendar quarter that the subject facility is operating.

(iii) All valid CEMS data shall be used in calculating emission rates even if the minimum data requirements of subparagraph (ii) of this paragraph are not met.

(iv) Along with any specific additional data requirements mandated by the department for a particular glass melting furnace, annual recertifications, quarterly accuracy, and daily calibration drift tests shall be performed in accordance with 40 CFR part 60, appendix F.

(v) When NO_x emissions data are not obtained because of CEMS downtime, or for periods when no valid CEMS data is available, emission data shall be obtained by using the 90th percentile value of all CEMS NO_x emission data collected over the last 180 days.

(5) In addition to the requirements of subparagraphs (i) through (iii) of this paragraph, the owner or operator of a glass melting furnace shall comply with the CEMS recordkeeping and reporting requirements of 40 CFR part 60, subpart A and appendix F.

(i) The owner or operator of a glass melting furnace shall notify the department of the planned initial start-up date of any new CEMS.

(ii) Emissions, monitoring, and operating parameter records or measurements required by this Subpart and any additional parameters required by the department shall be maintained for at least five years and made available to the department upon request.

(iii) On a semi-annual basis, the owner or operator of a glass melting furnace shall tabulate and summarize applicable emissions, monitoring, and operating parameter measurements recorded during the preceding six months, and submit these records to the department. These records shall be submitted in a format acceptable to the department and shall include:

(a) the 30 day rolling average NO_x emissions as specified under paragraph (4) of this subdivision;

(b) identification of the operating hours when NO_x emissions data are not included in a calculation of the 30 day rolling average emissions and the reasons for not including that data;

(c) a comparison of the NO_x emissions to the NO_x RACT emissions limit(s);

(d) type and amount of fuel burned on a daily basis and the as burned heat content of the fuel;

(e) the total daily NO_x emissions and total daily glass production; and

(f) the results of CEMS accuracy assessments as required by 40 CFR part 60, appendix F and any additional data quality information required by the department.

(d) Protocols, reports, summaries, schedules, and any other information required to be submitted to the department under provisions of this Subpart must be sent (in either hardcopy or electronically) as follows:

(1) one copy to the Division of Air Resources, New York State Department of Environmental Conservation, 625 Broadway, Albany, New York 12233; and

(2) one copy to the regional air pollution control engineer at the appropriate regional office of the department.