

ILLINOIS POLLUTION CONTROL BOARD
March 1, 2001

IN THE MATTER OF:)
)
PROPOSED NEW 35 ILL. ADM. CODE 217.) R01-11
SUBPART T, CEMENT KILNS,) (Rulemaking - Air)
AND AMENDMENTS TO)
35 ILL. ADM. CODE 211 AND 217)

Adopted Rule. Final Order.

OPINION AND ORDER OF THE BOARD (by N.J. Melas):

By today's order the Board adopts regulations to implement a program to reduce nitrogen oxides (NO_x)¹ emissions from large cement kilns in Illinois. The program applies to emissions that occur during the period of May 31, 2004, to September 30, 2004, and then from May 1 to September 30 of subsequent years.

The regulations adopted today are substantially similar to the proposal filed with the Board by the Illinois Environmental Protection Agency (Agency) on August 21, 2000. The Agency proposes to amend 35 Ill. Adm. Code 211 and 217 of the Illinois air regulations. The Agency also proposes to have the Board add a new Subpart T to Part 217 and to make various conforming amendments to Parts 211 and 217. The Board adopted the Agency proposal for first notice. See Proposed New 35 Ill. Adm. Code 217. Subpart T, Cement Kilns, and Amendments to 35 Ill. Adm. Code 211 and 217 (August 24, 2000), R01-11. The Secretary of State then published the proposal in the *Illinois Register* on September 8, 2000. See 24 Ill. Reg. 13,563. The Board subsequently adopted its second notice opinion and order and sent this matter to the Joint Committee on Administrative Rules (JCAR) for its consideration. See Proposed New 35 Ill. Adm. Code 217. Subpart T, Cement Kilns, and Amendments to 35 Ill. Adm. Code 211 and 217 (December 21, 2000), R01-11. On February 21, 2001, JCAR voted a certificate of no objection.

The Environmental Protection Act (Act) at Section 9.9 requires that the Board adopt regulations limiting NO_x emissions from cement kilns. 415 ILCS 5/9.9(b) (1998 State Bar Edition, 1999 Supp.). Today's proposal is also part of the State's overall strategy to improve air quality as required by the federal Clean Air Act (CAA) including the CAA Amendments of 1990 (42 U.S.C. §§ 7401 *et seq.* (1990)). In particular, this rulemaking will assist Illinois in

¹ Nitrogen oxides consist of compounds of nitrogen and oxygen. The ratio of oxygen to nitrogen in these compounds ranges from 0.5 to 2.5. The term NO_x is conventionally used for this group of compounds.

attaining statewide compliance with the one-hour National Ambient Air Quality Standards (NAAQS) for ozone.²

REGULATORY FRAMEWORK

Federal Actions/Requirements

Requirement for Attainment of the Ozone National Ambient Air Quality Standard

The State of Illinois has the primary responsibility under the CAA for ensuring that all are met in the State. This includes the NAAQS for ozone, which is 125 parts per billion. Tr.1 at 13, 16; Exh. 1 at 2; St. of Reas. at 2.³ (The federal regulation states that the NAAQS for ozone is .12 parts per million. 40 C.F.R. § 50.9 (2000).) Currently there are two areas of the State which do not meet the one-hour ozone NAAQS. These areas are the Chicago and Metro-East ozone nonattainment areas (NAAs).⁴ In addition, Illinois is required to control emissions that “contribute significantly to nonattainment in, or interfere with maintenance (of NAAQS) by, any other State”. 42 U.S.C. § 7410(a)(2)(D) (1990).

NO_x SIP Call

On October 27, 1998, the USEPA promulgated a document titled “Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Regions for Purpose of Reducing Regional Transport of Ozone.” 63 Fed. Reg. 57,356 (1998). This document, and the requirements it imposes on states, is commonly known as the NO_x SIP Call.

The NO_x SIP Call requires that Illinois, along with 22 other states and the District of Columbia, develop plans to limit NO_x emissions to a specified budget. 65 Fed. Reg. 11,222 (2000). If a state fails to adopt a plan acceptable to USEPA, USEPA will impose its own Federal Implementation Plan (FIP).

USEPA set the total final statewide budget for Illinois at 270,560 tons per yearly ozone season. 65 Fed. Reg. 11,222 (2000); Exh. 1 at 5; St. of Reas. at 11-12. The budget is based

² Ozone is produced in the lower levels of the atmosphere when NO_x or volatile organic compounds react with oxygen in the presence of sunlight. Controlling NO_x is accordingly a method for controlling ozone. Tr.1 at 12-13; Exh. 5.

³ The transcripts of the hearing will be cited as “Tr.1 at ___” and “Tr.2 at ___” for the Chicago and Springfield hearings, respectively. Exhibits admitted at hearing will be cited as “Exh. ___ at ___.” The Agency’s Statement of Reasons will be cited as “St. of Reas. at ___.” The Agency’s Comments will be cited as “PC at ___.”

⁴ The Agency often refers to the terms “Metro-East NAA” and “Chicago NAA” as (respectively) the “St. Louis/Metro East NAA” and the “Lake Michigan NAA.” During the hearings for docket R01-9, the Agency said that there is no intended regulatory consequence in this use of alternate terminology. See R01-9 record, Tr.1 at 235-6.

on projected NO_x emissions in 2007, taking into account required NO_x reductions. Tr.1 at 28-29; St. of Reas. at 11-12.

There are three other matters to implement the other portions of the NO_x SIP Call. Docket R01-9 has already been promulgated. It addresses NO_x reductions from electrical generating units (EGUs). See Proposed New 35 Ill. Adm. Code 217. Subpart W, The NO_x Trading Program for Electrical Generating Units, and Amendments to 35 Ill. Adm. Code 211 And 217 (December 21, 2000), R01-9. The other two matters are currently at second notice. Docket R01-16 also addresses NO_x reductions from EGUs, but specifically addresses NO_x control strategies necessary to demonstrate attainment of the 1-hour NAAQS for ozone by May 1, 2003, in the Metro East NAA. See Proposed Amendments to 35 Ill. Adm. Code 217. Subpart V, Electric Power Generation (February 15, 2001), R01-16. Docket R01-17 addresses control of NO_x from fossil fuel-fired stationary boilers, combustion turbines, and combined cycle systems that are not in EGUs. It also addresses voluntary NO_x reductions with respect to the Subpart U and Subpart W trading programs. See Proposed New 35 Ill. Adm. Code 217. Subpart U, NO_x Control and Trading Program for Specified NO_x Generating Units, Subpart X, Voluntary NO_x Emissions Reduction Program, and Amendments to 35 Ill. Adm. Code 211 (February 15, 2001), R01-17.

Illinois is not required under the NO_x SIP Call to control any particular source at any particular level, as long as the State meets its final statewide budget. The Agency contends that controls on large cement kilns are necessary to meet the statewide budget. Tr.1 at 21; Exh. 1 at 5; Exh. 5; St. of Reas. at 7, 13.

Action in Federal Court

The NO_x SIP Call was challenged before the U.S. Court of Appeals for the D.C. Circuit. That court subsequently stayed the effective date of the NO_x SIP Call rule on May 25, 1999, but lifted the stay 13 months later on June 22, 2000. Michigan v. EPA, No. 98-1497, (D.C. Cir. 2000); Tr.1 at 20; Exh. 1 at 4. On March 3, 2000, the court upheld most of the NO_x SIP Call rule. Michigan v. EPA, 213 F.3d 663 (D.C. Cir. 2000).⁵ On September 20, 2000, and October 20, 2000, a total of three *writs of certiorari* were filed in the U.S. Supreme Court. See Michigan v. EPA, U.S., Nos. 00-445, 00-632, 00-633. As of this date, the Supreme Court has not indicated whether it intends to hear the appeals. The Supreme Court recently decided a case involving the 8-hour ozone air quality standard. Whitman v. American Trucking Associations, Inc., 531 U.S. ___ (2001), Nos. 99-1257 and 99-1426, 2001 U.S. LEXIS 1952 (Feb. 27, 2001). Appalachian Power Company v. EPA, No. 99-1268 (D.C. Cir. 2000), which should address NO_x budget allocations, is still pending.

⁵ The court reversed and remanded for further consideration the inclusion of portions of Missouri and Georgia in the rule. The court also reversed the inclusion of Wisconsin in the rule because USEPA had not made a showing that sources in Wisconsin significantly contributed to nonattainment or interfered with maintenance of the NAAQS in any other State. Neither of these changes affects today's proposed action.

The Board cannot, of course, base its decision in this matter on a prospective outcome of a court action. It is necessary for the Board to make its decision based on the current status of the law. In that regard, the Board believes the law requires that we move forward with these regulations. The Board will revisit this decision if a change in the law requires.

Implementation Date. At first notice the date for full implementation of the NO_x SIP Call (including the regulations for large cement kilns) was May 1, 2003. This date was part of the original NO_x SIP Call and is included in Section 9.9 of the Act. 415 ILCS 5/9.9(f) (1998 State Bar Edition, 1999 Supp.). However, on August 30, 2000, the D.C. Circuit Court of Appeals issued an order extending the deadline for full implementation of the NO_x SIP Call to May 31, 2004. See Michigan v. EPA, No. 98-1497 (D.C. Cir. 2000).

At hearing the Agency filed a motion to amend its proposal to incorporate the May 31, 2004 implementation date ordered by the D.C. Circuit Court of Appeals. See Exh. 4. At second notice, the Board granted that motion.⁶ The Board notes that language in Section 9.9 of the Act provides for further delay in the implementation of the NO_x SIP Call if the other USEPA Region V states and Kentucky do not have an approved SIP or FIP by May 31, 2004. 415 ILCS 5/9.9(f); see also Exh. 1 at 6; St. of Reas. at 26.

State Actions/Requirements

Section 9.9 also requires that “the Agency shall propose and the Board shall adopt regulations to implement NO_x emission reduction programs for cement kilns.” 415 ILCS 5/9.9(b) (1998 State Bar Edition, 1999 Supp.). Section 9.9 also provides that cement kilns may opt into the NO_x Trading Program. 415 ILCS 5/9.9(b), 39.5(1) (1998 State Bar Edition, 1999 Supp.).

PROPOSAL DEVELOPMENT

Starting in early 1999, the Agency held several meetings with representatives of the Illinois cement kiln industry and the Illinois Environmental Regulatory Group (IERG). The Agency then developed the instant proposal, which it believes is supported by the cement kiln industry. Exh. 1 at 7; Exh. 2 at 5-6; St. of Reas. at 19-20.

PROCEDURAL HISTORY

The Board held public hearings in this matter in Chicago, Illinois, on October 3, 2000, and in Springfield, Illinois, on November 3, 2000, before Board Hearing Officer Joel Sternstein and Board Member Nicholas Melas. Hearings were scheduled and conducted in accordance with Section 28.5 of the Act. 415 ILCS 5/28.5 (1998). Section 28.5 provides for “fast-track” adoption of certain regulations necessary for compliance with the CAAA.

⁶ Primarily those changes include shifting the relevant dates in the proposal to the following year, since the implementation date is now 2004, rather than 2003. See the proposed language at Sections 217.402(a), 217.404(a) (b), and (c), 217.406(a), and 217.408(a) and (b).

Agency attorney Alec Messina presented three staff members as witnesses at hearing: Dennis Lawler, Manager of the Division of Air Pollution Control, and Yoginder Mahajan and Berkley Moore of the Air Quality Planning Unit. Brooke Peterson of IERG was the only member of the regulated community to attend the hearings.

The record in this matter closed on November 23, 2000, as provided for at Section 28.5(l) of the Act. The Agency filed comments, but no other parties submitted comments.

THE PROPOSAL

Scope and Affected Facilities

The proposed regulations affect only large cement kilns that are capable of emitting at least one ton of NO_x per day from May 1 through September 30. Tr.1 at 21, 31; Exh. 3 at 6; St. of Reas. at 1, 13-14, 24.

Owners and operators of kilns that began operation after January 1, 1996, must meet either the requirements of the proposed regulations or other requirements under the CAA, depending on which set of requirements are more stringent. This provision was added to take into account CAA Prevention of Significant Deterioration and New Source Review requirements. Tr.1 at 33, 43-45; Exh. 3 at 8; St. of Reas. at 25; PC at 4. Currently, all of the large cement kilns in Illinois were constructed prior to 1996. Tr.1 at 40.

USEPA used the findings of the Ozone Transport Assessment Group (OTAG) in drafting the NO_x SIP Call. OTAG found that, in order to effectively control NO_x in NAAs, states would have to control NO_x emissions in both attainment areas (AAs) and NAAs. Transport of NO_x from AAs increases NO_x formation in NAAs. The Agency conducted similar studies for the Chicago NAA and reached the same conclusions as OTAG. Tr.1 at 14-18, 19; Exh. 5. Thus, the proposal applies to large cement kilns across Illinois, not just those in NAAs. Tr.1 at 25; Exh. 2 at 1; St. of Reas. at 11.

The Agency conducted a survey and determined that there are currently four cement kilns at three sources which will be affected by the proposed regulations. Tr.1 at 27; Exh. 2 at 5. One kiln is at the Illinois Cement Company facility in LaSalle, one is at the Lone Star Industries, Inc. facility in Oglesby, and two are at the LaFarge Corporation facility in Joppa. All of the regulated kilns in Illinois are currently long dry kilns, but the kiln at the Illinois Cement Company is being converted into a preheater/precalciner kiln. The proposed regulations also address long wet kilns and preheater kilns. Tr.1 at 46-47; Technical Support Document at 4-5, 22.

NO_x Reductions

NO_x emissions from large cement kilns are not currently regulated in Illinois. The proposed regulations should result in a 30% decrease from uncontrolled levels of NO_x

emissions for large cement kilns. Tr.1 at 21, 30, 38-39; Exh. 5; St. of Reas. at 1-2, 11; PC at 1-2, 4-5.

In order to determine the reductions needed to meet the requirements of the NO_x SIP Call, the Agency used 1995 as a baseline year and measured the NO_x emissions from large cement kilns in Illinois that emitted more than one ton of NO_x per day. The Agency then used USEPA's economic growth projection of 42% for the period 1995-2007 and estimated that the 2007 yearly seasonal budget would be 4,073 tons for large cement kilns in Illinois. The Agency reduced this budget by 30% (1,222 fewer tons of NO_x) and determined that the controlled level of NO_x for large cement kilns should be 2,851 tons in 2007. Illinois total NO_x budget for 2007 is 270,560 tons. Tr.1 at 29, 39-40, 49-50; Exh. 1 at 5; Exh. 2 at 5; PC at 3-5; St. of Reas. at 11-12.

Methods to Achieve NO_x Reductions

Cement manufacturing requires a large amount of fuel (usually coal or natural gas) to be burned at high temperatures – typically over 2,000°F. One of the byproducts from this combustion is NO_x. (In addition, some nitrogen from the raw materials and the coal combines with atmospheric oxygen to produce NO_x). The combustion process produces a material called clinker that is then blended with other material to produce cement. Tr.1 at 25; Exh. 2 at 2.

There are two categories of NO_x controls for cement kilns: Combustion controls reduce NO_x formation, whereas postcombustion controls involve destroying NO_x that has already formed during the combustion process. Tr.1 at 25-26; Exh. 2 at 3, St. of Reas. at 16.

There are a variety of combustion and postcombustion control technologies. Low NO_x burners or mid-kiln firing systems are “conventional” combustion control methods. Low NO_x burners reduce flame turbulence, control the mixing of fuel and air, and establish fuel-rich zones for initial combustion. Mid-kiln firing involves injecting fuel for producing clinker into the middle of the kiln, thus ensuring better heat continuity. USEPA found that large cement kilns could generally achieve a 20% to 30% reduction in NO_x emissions by utilizing these conventional combustion controls. Tr.1 at 25, 29; Exh. 2 at 1-2, 6; St. of Reas. at 16-18; PC at 5-6.

The proposed rule offers owners or operators of kilns five compliance options:

1. Installing and operating low NO_x burners or mid-kiln firing systems.
2. Employing alternative control techniques that achieve NO_x emission reductions equivalent to option 1.
3. Developing an emissions reduction plan that will achieve a 30% reduction in NO_x emissions.

4. Obtaining an adjusted standard. Tr.1 at 33-34; Exh. 3 at 6-8; St. of Reas. at 14-15, 24-26; PC at 4-5.
5. Allowing large cement kilns to opt into the NO_x trading program for EGUs and the NO_x Trading Program for non-EGU fossil fuel-fired stationary boilers, combustion turbines, and combined cycle systems. See 40 C.F.R. § 96 (1998); Proposed New 35 Ill. Adm. Code 217. Subpart W, the NO_x Trading Program for Electrical Generating Units, and Amendments to 35 Ill. Adm. Code 211 and 217 (December 21, 2000), R01-9; Proposed New 35 Ill. Adm. Code 217. Subpart U, NO_x Control and Trading Program for Specified NO_x Generating Units, Subpart X, Voluntary NO_x Emissions Reduction Program, and Amendments To 35 Ill. Adm. Code 211 (February 15, 2001), R01-17; Tr.1 at 21, 51-53; Tr.2 at 13; Exh. 1 at 6; Exh. 5; PC at 5.

Other Requirements

Owners and operators of large cement kilns must perform both initial and annual testing. Tr.1 at 34-35; Exh. 3 at 9-10; St. of Reas. at 26-27. They must also monitor kiln operations and submit a detailed monitoring plan to the Agency. Tr.1 at 35-36; Exh. 3 at 10-11; St. of Reas at 27-28. The proposed regulations also set out detailed requirements on reporting to the Agency and record keeping procedures. For example, owners or operators must submit an initial compliance certification and annual emissions reports to the Agency. They must also produce and keep certain documents describing kiln operations, startups, shutdowns, malfunctions, maintenance, testing, and tons of clinker produced per day. Tr.1 at 36-37, 48-49; Exh. 3 at 11-13; St. of Reas. at 28-30.

ECONOMIC AND TECHNICAL CONSIDERATIONS

Section 27(a) of the Act requires that in promulgating regulations, the Board “shall take into account . . . the technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution.” 415 ILCS 5/27(a) (1998).

Implementation of NO_x emission controls involves both capital costs and annual costs. Cost effectiveness is expressed as the annual cost divided by the tons of NO_x removed. Exh. 2 at 4; St. of Reas. at 19. USEPA determined that owners and operators of large cement kilns would be able to employ NO_x emission control technologies at a cost of less than \$2,000 per ton which would lead to a substantial reduction in NO_x emissions from uncontrolled levels. St. of Reas. at 12.

USEPA estimated that combustion controls for large cement kilns cost between \$236 and \$1,424 per ton of NO_x removed, while post-combustion controls cost between \$846 and \$5,216 per ton. USEPA determined that the average cost effectiveness for NO_x SIP Call controls from cement kilns would be \$1,573 per ton of NO_x removed. (All figures are expressed in 1999 dollars.) USEPA found the control of NO_x in large cement kilns to be

“highly cost effective.” Tr.1 at 20-21, 26-27, 29; Exh. 1 at 4; Exh. 2 at 4-5; St. of Reas. at 7; PC at 4.

The Agency estimates that the proposed regulations will have an annualized cost of \$1.9 million for all of the large cement kilns in Illinois. Approximately 15% of that \$1.9 million will entail the added testing, monitoring, reporting and record keeping activities. Tr.2 at 8-12.

Thus, USEPA and the Agency have determined that the control techniques required for large cement kilns to comply with the NO_x budgets are both technically feasible and economically reasonable. St. of Reas. at 15-16, 19.

CHANGES DURING THE SECOND-NOTICE PERIOD

Several modifications arose during the second-notice period: Most of the modifications are word choice and grammatical changes. In addition, each of the Sections in Subpart T has been renumbered to be in numerical order with the rest of Part 217. The former Sections at 35 Ill. Adm. Code 217.600, 217.602, 217.604, 217.606, 217.608, and 217.610 are now respectively at 35 Ill. Adm. Code 217.400, 217.402, 217.404, 217.406, 217.408, and 217.410. Internal references to Section numbers have also been changed.

Additions prior to and at second notice are marked with single underlines while deletions are marked with single strikeouts. Additions since second notice are marked with double underlines. Deletions since second notice are marked with single underlines and double strikeouts.

CONCLUSION

The Board finds that the Agency’s proposed regulations for reductions in unregulated NO_x emissions from large cement kilns will enable Illinois to meet the NO_x SIP Call. The Board also finds that the Agency’s proposal will achieve NO_x reductions of approximately 30% from large cement kilns. Finally, the Board finds that the Agency’s proposed NO_x reductions for large cement kilns will be technically feasible and economically reasonable.

Pursuant to both federal and State law, large cement kilns in Illinois are required to significantly reduce emissions of NO_x from May 31 to September 30 during 2004 and from May 1 to September 30 starting in 2005. As a result, the Board adopts the Agency proposal, with modifications, for final notice.

ORDER

The Clerk is directed to cause publication in the *Illinois Register* of the following amendments to the Board’s air regulations at 35 Ill. Adm. Code 211 and 217.

TITLE 35: ENVIRONMENTAL PROTECTION
 SUBTITLE B: AIR POLLUTION
 CHAPTER I: POLLUTION CONTROL BOARD

SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR
 STATIONARY SOURCES

PART 211
 DEFINITIONS AND GENERAL PROVISIONS

SUBPART A: GENERAL PROVISIONS

Section	
211.101	Incorporations by Reference
211.102	Abbreviations and Conversion Factors

SUBPART B: DEFINITIONS

Section	
211.121	Other Definitions
211.122	Definitions (Repealed)
211.130	Accelacota
211.150	Accumulator
211.170	Acid Gases
211.210	Actual Heat Input
211.230	Adhesive
211.240	Adhesion Promoter
211.250	Aeration
211.270	Aerosol Can Filling Line
211.290	Afterburner
211.310	Air Contaminant
211.330	Air Dried Coatings
211.350	Air Oxidation Process
211.370	Air Pollutant
211.390	Air Pollution
211.410	Air Pollution Control Equipment
211.430	Air Suspension Coater/Dryer
211.450	Airless Spray
211.470	Air Assisted Airless Spray
211.474	Alcohol
211.479	Allowance
211.484	Animal
211.485	Animal Pathological Waste
211.490	Annual Grain Through-Put
211.495	Anti-Glare/Safety Coating
211.510	Application Area
211.530	Architectural Coating

211.550	As Applied
211.560	As-Applied Fountain Solution
211.570	Asphalt
211.590	Asphalt Prime Coat
211.610	Automobile
211.630	Automobile or Light-Duty Truck Assembly Source or Automobile or Light-Duty Truck Manufacturing Plant
211.650	Automobile or Light-Duty Truck Refinishing
211.660	Automotive/Transportation Plastic Parts
211.670	Baked Coatings
211.680	Bakery Oven
211.685	Basecoat/Clearcoat System
211.690	Batch Loading
211.695	Batch Operation
211.696	Batch Process Train
211.710	Bead-Dipping
211.730	Binders
211.750	British Thermal Unit
211.770	Brush or Wipe Coating
211.790	Bulk Gasoline Plant
211.810	Bulk Gasoline Terminal
211.820	Business Machine Plastic Parts
211.830	Can
211.850	Can Coating
211.870	Can Coating Line
211.890	Capture
211.910	Capture Device
211.930	Capture Efficiency
211.950	Capture System
<u>211.955</u>	<u>Cement</u>
<u>211.960</u>	<u>Cement Kiln</u>
211.970	Certified Investigation
211.980	Chemical Manufacturing Process Unit
211.990	Choke Loading
211.1010	Clean Air Act
211.1050	Cleaning and Separating Operation
211.1070	Cleaning Materials
211.1090	Clear Coating
211.1110	Clear Topcoat
<u>211.1120</u>	<u>Clinker</u>
211.1130	Closed Purge System
211.1150	Closed Vent System
211.1170	Coal Refuse
211.1190	Coating
211.1210	Coating Applicator

211.1230	Coating Line
211.1250	Coating Plant
211.1270	Coil Coating
211.1290	Coil Coating Line
211.1310	Cold Cleaning
211.1312	Combined Cycle System
211.1316	Combustion Turbine
211.1320	Commence Commercial Operation
211.1324	Commence Operation
211.1328	Common Stack
211.1330	Complete Combustion
211.1350	Component
211.1370	Concrete Curing Compounds
211.1390	Concentrated Nitric Acid Manufacturing Process
211.1410	Condensate
211.1430	Condensible PM-10
211.1465	Continuous Automatic Stoking
211.1467	Continuous Coater
211.1470	Continuous Process
211.1490	Control Device
211.1510	Control Device Efficiency
211.1515	Control Period
211.1520	Conventional Air Spray
211.1530	Conventional Soybean Crushing Source
211.1550	Conveyorized Degreasing
211.1570	Crude Oil
211.1590	Crude Oil Gathering
211.1610	Crushing
211.1630	Custody Transfer
211.1650	Cutback Asphalt
211.1670	Daily-Weighted Average VOM Content
211.1690	Day
211.1710	Degreaser
211.1730	Delivery Vessel
211.1750	Dip Coating
211.1770	Distillate Fuel Oil
211.1780	Distillation Unit
211.1790	Drum
211.1810	Dry Cleaning Operation or Dry Cleaning Facility
211.1830	Dump-Pit Area
211.1850	Effective Grate Area
211.1870	Effluent Water Separator
211.1875	Elastomeric Materials
211.1880	Electromagnetic Interference/Radio Frequency <u>Interference</u> (EMI/RFI) Shielding Coatings

211.1885	Electronic Component
211.1890	Electrostatic Bell or Disc Spray
211.1900	Electrostatic Prep Coat
211.1910	Electrostatic Spray
211.1920	Emergency or Standby Unit
211.1930	Emission Rate
211.1950	Emission Unit
211.1970	Enamel
211.1990	Enclose
211.2010	End Sealing Compound Coat
211.2030	Enhanced Under-the-Cup Fill
211.2050	Ethanol Blend Gasoline
211.2070	Excess Air
211.2080	Excess Emissions
211.2090	Excessive Release
211.2110	Existing Grain-Drying Operation (Repealed)
211.2130	Existing Grain-Handling Operation (Repealed)
211.2150	Exterior Base Coat
211.2170	Exterior End Coat
211.2190	External Floating Roof
211.2210	Extreme Performance Coating
211.2230	Fabric Coating
211.2250	Fabric Coating Line
211.2270	Federally Enforceable Limitations and Conditions
211.2285	Feed Mill
211.2290	Fermentation Time
211.2300	Fill
211.2310	Final Repair Coat
211.2330	Firebox
211.2350	Fixed-Roof Tank
211.2360	Flexible Coating
211.2365	Flexible Operating <u>Operation</u> Unit
211.2370	Flexographic Printing
211.2390	Flexographic Printing Line
211.2410	Floating Roof
211.2420	Fossil Fuel
211.2425	Fossil Fuel-Fired
211.2430	Fountain Solution
211.2450	Freeboard Height
211.2470	Fuel Combustion Emission Unit or Fuel Combustion Emission Source
211.2490	Fugitive Particulate Matter
211.2510	Full Operating Flowrate
211.2530	Gas Service
211.2550	Gas/Gas Method
211.2570	Gasoline

211.2590	Gasoline Dispensing Operation or Gasoline Dispensing Facility
211.2610	Gel Coat
211.2620	Generator
211.2630	Gloss Reducers
211.2650	Grain
211.2670	Grain-Drying Operation
211.2690	Grain-Handling and Conditioning Operation
211.2710	Grain-Handling Operation
211.2730	Green-Tire Spraying
211.2750	Green Tires
211.2770	Gross Heating Value
211.2790	Gross Vehicle Weight Rating
211.2810	Heated Airless Spray
211.2815	Heat Input
211.2820	Heat Input Rate
211.2830	Heatset
211.2850	Heatset Web Offset Lithographic Printing Line
211.2870	Heavy Liquid
211.2890	Heavy Metals
211.2910	Heavy Off-Highway Vehicle Products
211.2930	Heavy Off-Highway Vehicle Products Coating
211.2950	Heavy Off-Highway Vehicle Products Coating Line
211.2970	High Temperature Aluminum Coating
211.2990	High Volume Low Pressure (HVLP) Spray
211.3010	Hood
211.3030	Hot Well
211.3050	Housekeeping Practices
211.3070	Incinerator
211.3090	Indirect Heat Transfer
211.3110	Ink
211.3130	In-Process Tank
211.3150	In-Situ Sampling Systems
211.3170	Interior Body Spray Coat
211.3190	Internal-Floating Roof
211.3210	Internal Transferring Area
211.3230	Lacquers
211.3250	Large Appliance
211.3270	Large Appliance Coating
211.3290	Large Appliance Coating Line
211.3310	Light Liquid
211.3330	Light-Duty Truck
211.3350	Light Oil
211.3370	Liquid/Gas Method
211.3390	Liquid-Mounted Seal
211.3410	Liquid Service

211.3430	Liquids Dripping
211.3450	Lithographic Printing Line
211.3470	Load-Out Area
211.3480	Loading Event
<u>211.3483</u>	<u>Long Dry Kiln</u>
<u>211.3485</u>	<u>Long Wet Kiln</u>
<u>211.3487</u>	<u>Low-NO_xNO_x Burner</u>
211.3490	Low Solvent Coating
211.3500	Lubricating Oil
211.3510	Magnet Wire
211.3530	Magnet Wire Coating
211.3550	Magnet Wire Coating Line
211.3570	Major Dump Pit
211.3590	Major Metropolitan Area (MMA)
211.3610	Major Population Area (MPA)
211.3620	Manually Operated Equipment
211.3630	Manufacturing Process
211.3650	Marine Terminal
211.3660	Marine Vessel
211.3670	Material Recovery Section
211.3690	Maximum Theoretical Emissions
211.3695	Maximum True Vapor Pressure
211.3710	Metal Furniture
211.3730	Metal Furniture Coating
211.3750	Metal Furniture Coating Line
211.3770	Metallic Shoe-Type Seal
<u>211.3780</u>	<u>Mid-Kiln Firing</u>
211.3790	Miscellaneous Fabricated Product Manufacturing Process
211.3810	Miscellaneous Formulation Manufacturing Process
211.3830	Miscellaneous Metal Parts and Products
211.3850	Miscellaneous Metal Parts and Products Coating
211.3870	Miscellaneous Metal Parts or Products Coating Line
211.3890	Miscellaneous Organic Chemical Manufacturing Process
211.3910	Mixing Operation
211.3915	Mobile Equipment
211.3930	Monitor
211.3950	Monomer
211.3960	Motor Vehicles
211.3965	Motor Vehicle Refinishing
211.3970	Multiple Package Coating
211.3980	Nameplate Capacity
211.3990	New Grain-Drying Operation (Repealed)
211.4010	New Grain-Handling Operation (Repealed)
211.4030	No Detectable Volatile Organic Material Emissions
211.4050	Non-Contact Process Water Cooling Tower

211.4055	Non-Flexible Coating
211.4065	Non-Heatset
211.4070	Offset
211.4090	One Hundred Percent Acid
211.4110	One-Turn Storage Space
211.4130	Opacity
211.4150	Opaque Stains
211.4170	Open Top Vapor Degreasing
211.4190	Open-Ended Valve
211.4210	Operator of a Gasoline Dispensing Operation or Operator of a Gasoline Dispensing Facility
211.4230	Organic Compound
211.4250	Organic Material and Organic Materials
211.4260	Organic Solvent
211.4270	Organic Vapor
211.4290	Oven
211.4310	Overall Control
211.4330	Overvarnish
211.4350	Owner of a Gasoline Dispensing Operation or Owner of a Gasoline Dispensing Facility
211.4370	Owner or Operator
211.4390	Packaging Rotogravure Printing
211.4410	Packaging Rotogravure Printing Line
211.4430	Pail
211.4450	Paint Manufacturing Source or Paint Manufacturing Plant
211.4470	Paper Coating
211.4490	Paper Coating Line
211.4510	Particulate Matter
211.4530	Parts Per Million (Volume) or PPM (Vol)
211.4550	Person
211.4590	Petroleum
211.4610	Petroleum Liquid
211.4630	Petroleum Refinery
211.4650	Pharmaceutical
211.4670	Pharmaceutical Coating Operation
211.4690	Photochemically Reactive Material
211.4710	Pigmented Coatings
211.4730	Plant
211.4740	Plastic Part
211.4750	Plasticizers
211.4770	PM-10
211.4790	Pneumatic Rubber Tire Manufacture
211.4810	Polybasic Organic Acid Partial Oxidation Manufacturing Process
211.4830	Polyester Resin Material(s)
211.4850	Polyester Resin Products Manufacturing Process

211.4870	Polystyrene Plant
211.4890	Polystyrene Resin
211.4910	Portable Grain-Handling Equipment
211.4930	Portland Cement Manufacturing Process Emission Source
211.4950	Portland Cement Process or Portland Cement Manufacturing Plant
211.4960	Potential Electrical Output Capacity
211.4970	Potential to Emit
211.4990	Power Driven Fastener Coating
211.5010	Precoat
<u>211.5015</u>	<u>Preheater Kiln</u>
<u>211.5020</u>	<u>Preheater/Precalciner Kiln</u>
211.5030	Pressure Release
211.5050	Pressure Tank
211.5060	Pressure/Vacuum Relief Valve
211.5061	Pretreatment Wash Primer
211.5065	Primary Product
211.5070	Prime Coat
211.5080	Primer Sealer
211.5090	Primer Surfacer Coat
211.5110	Primer Surfacer Operation
211.5130	Primers
211.5150	Printing
211.5170	Printing Line
211.5185	Process Emission Source
211.5190	Process Emission Unit
211.5210	Process Unit
211.5230	Process Unit Shutdown
211.5245	Process Vent
211.5250	Process Weight Rate
211.5270	Production Equipment Exhaust System
211.5310	Publication Rotogravure Printing Line
211.5330	Purged Process Fluid
211.5340	Rated Heat Input Capacity
211.5350	Reactor
211.5370	Reasonably Available Control Technology (RACT)
211.5390	Reclamation System
211.5410	Refiner
211.5430	Refinery Fuel Gas
211.5450	Refinery Fuel Gas System
211.5470	Refinery Unit or Refinery Process Unit
211.5480	Reflective Argent Coating
211.5490	Refrigerated Condenser
211.5500	Regulated Air Pollutant
211.5510	Reid Vapor Pressure
211.5530	Repair

211.5550	Repair Coat
211.5570	Repaired
211.5580	Repowering
211.5590	Residual Fuel Oil
211.5600	Resist Coat
211.5610	Restricted Area
211.5630	Retail Outlet
211.5650	Ringelmann Chart
211.5670	Roadway
211.5690	Roll Coater
211.5710	Roll Coating
211.5730	Roll Printer
211.5750	Roll Printing
211.5770	Rotogravure Printing
211.5790	Rotogravure Printing Line
211.5810	Safety Relief Valve
211.5830	Sandblasting
211.5850	Sanding Sealers
211.5870	Screening
211.5890	Sealer
211.5910	Semi-Transparent Stains
211.5930	Sensor
211.5950	Set of Safety Relief Valves
211.5970	Sheet Basecoat
211.5980	Sheet-Fed
211.5990	Shotblasting
211.6010	Side-Seam Spray Coat
211.6025	Single Unit Operation
211.6030	Smoke
211.6050	Smokeless Flare
211.6060	Soft Coat
211.6070	Solvent
211.6090	Solvent Cleaning
211.6110	Solvent Recovery System
211.6130	Source
211.6140	Specialty Coatings
211.6145	Specialty Coatings for Motor Vehicles
211.6150	Specialty High Gloss Catalyzed Coating
211.6170	Specialty Leather
211.6190	Specialty Soybean Crushing Source
211.6210	Splash Loading
211.6230	Stack
211.6250	Stain Coating
211.6270	Standard Conditions
211.6290	Standard Cubic Foot (scf)

211.6310	Start-Up
211.6330	Stationary Emission Source
211.6350	Stationary Emission Unit
211.6355	Stationary Gas Turbine
211.6360	Stationary Reciprocating Internal Combustion Engine
211.6370	Stationary Source
211.6390	Stationary Storage Tank
211.6400	Stencil Coat
211.6410	Storage Tank or Storage Vessel
211.6420	Strippable Spray Booth Coating
211.6430	Styrene Devolatilizer Unit
211.6450	Styrene Recovery Unit
211.6470	Submerged Loading Pipe
211.6490	Substrate
211.6510	Sulfuric Acid Mist
211.6530	Surface Condenser
211.6540	Surface Preparation Materials
211.6550	Synthetic Organic Chemical or Polymer Manufacturing Plant
211.6570	Tablet Coating Operation
211.6580	Texture Coat
211.6590	Thirty-Day Rolling Average
211.6610	Three-Piece Can
211.6620	Three or Four Stage Coating System
211.6630	Through-the-Valve Fill
211.6650	Tooling Resin
211.6670	Topcoat
211.6690	Topcoat Operation
211.6695	Topcoat System
211.6710	Touch-Up
211.6720	Touch-Up Coating
211.6730	Transfer Efficiency
211.6750	Tread End Cementing
211.6770	True Vapor Pressure
211.6790	Turnaround
211.6810	Two-Piece Can
211.6830	Under-the-Cup Fill
211.6850	Undertread Cementing
211.6860	Uniform Finish Blender
211.6870	Unregulated Safety Relief Valve
211.6880	Vacuum Metallizing
211.6890	Vacuum Producing System
211.6910	Vacuum Service
211.6930	Valves Not Externally Regulated
211.6950	Vapor Balance System
211.6970	Vapor Collection System

211.6990	Vapor Control System
211.7010	Vapor-Mounted Primary Seal
211.7030	Vapor Recovery System
211.7050	Vapor-Suppressed Polyester Resin
211.7070	Vinyl Coating
211.7090	Vinyl Coating Line
211.7110	Volatile Organic Liquid (VOL)
211.7130	Volatile Organic Material Content (VOMC)
211.7150	Volatile Organic Material (VOM) or Volatile Organic Compound (VOC)
211.7170	Volatile Petroleum Liquid
211.7190	Wash Coat
211.7200	Washoff Operations
211.7210	Wastewater (Oil/Water) Separator
211.7230	Weak Nitric Acid Manufacturing Process
211.7250	Web
211.7270	Wholesale Purchase - Consumer
211.7290	Wood Furniture
211.7310	Wood Furniture Coating
211.7330	Wood Furniture Coating Line
211.7350	Woodworking
211.7400	Yeast Percentage

Appendix A Rule into Section Table

Appendix B Section into Rule Table

AUTHORITY: Implementing Sections 9, 9.1, 9.9, and 10 and authorized by Sections 27 and 28.5 of the Environmental Protection Act [415 ILCS 5/9, 9.1, 9.9, 10, 27 and 28.5].

SOURCE: Adopted as Chapter 2: Air Pollution, Rule 201: Definitions, R71-23, 4 PCB 191, filed and effective April 14, 1972; amended in R74-2 and R75-5, 32 PCB 295, at 3 Ill. Reg. 5, p. 777, effective February 3, 1979; amended in R78-3 and 4, 35 PCB 75 and 243, at 3 Ill. Reg. 30, p. 124, effective July 28, 1979; amended in R80-5, at 7 Ill. Reg. 1244, effective January 21, 1983; codified at 7 Ill. Reg. 13590; amended in R82-1 (Docket A) at 10 Ill. Reg. 12624, effective July 7, 1986; amended in R85-21(A) at 11 Ill. Reg. 11747, effective June 29, 1987; amended in R86-34 at 11 Ill. Reg. 12267, effective July 10, 1987; amended in R86-39 at 11 Ill. Reg. 20804, effective December 14, 1987; amended in R82-14 and R86-37 at 12 Ill. Reg. 787, effective December 24, 1987; amended in R86-18 at 12 Ill. Reg. 7284, effective April 8, 1988; amended in R86-10 at 12 Ill. Reg. 7621, effective April 11, 1988; amended in R88-23 at 13 Ill. Reg. 10862, effective June 27, 1989; amended in R89-8 at 13 Ill. Reg. 17457, effective January 1, 1990; amended in R89-16(A) at 14 Ill. Reg. 9141, effective May 23, 1990; amended in R88-30(B) at 15 Ill. Reg. 5223, effective March 28, 1991; amended in R88-14 at 15 Ill. Reg. 7901, effective May 14, 1991; amended in R91-10 at 15 Ill. Reg. 15564, effective October 11, 1991; amended in R91-6 at 15 Ill. Reg. 15673, effective October 14, 1991; amended in R91-22 at 16 Ill. Reg. 7656, effective May 1, 1992; amended in R91-24 at 16 Ill. Reg. 13526, effective August 24, 1992; amended in R93-9 at 17 Ill. Reg. 16504,

effective September 27, 1993; amended in R93-11 at 17 Ill. Reg. 21471, effective December 7, 1993; amended in R93-14 at 18 Ill. Reg. 1253, effective January 18, 1994; amended in R94-12 at 18 Ill. Reg. 14962, effective September 21, 1994; amended in R94-14 at 18 Ill. Reg. 15744, effective October 17, 1994; amended in R94-15 at 18 Ill. Reg. 16379, effective October 25, 1994; amended in R94-16 at 18 Ill. Reg. 16929, effective November 15, 1994; amended in R94-21, R94-31 and R94-32 at 19 Ill. Reg. 6823, effective May 9, 1995; amended in R94-33 at 19 Ill. Reg. 7344, effective May 22, 1995; amended in R95-2 at 19 Ill. Reg. 11066, effective July 12, 1995; amended in R95-16 at 19 Ill. Reg. 15176, effective October 19, 1995; amended in R96-5 at 20 Ill. Reg. 7590, effective May 22, 1996; amended in R96-16 at 21 Ill. Reg. 2641, effective February 7, 1997; amended in R97-17 at 21 Ill. Reg. 6489, effective May 16, 1997; amended in R97-24 at 21 Ill. Reg. 7695, effective June 9, 1997; amended in R96-17 at 21 Ill. Reg. 7856, effective June 17, 1997; amended in R97-31 at 22 Ill. Reg. 3497, effective February 2, 1998; amended in R98-17 at 22 Ill. Reg. 11405, effective June 22, 1998; amended in R01-~~09~~ at ~~25~~ ~~24~~ Ill. Reg. 108, effective January 5, 2001; amended in R01-11 at 25 Ill. Reg. _____, effective _____.

BOARD NOTE: This Part implements the Illinois Environmental Protection Act as of July 1, 1994.

SUBPART B: DEFINITIONS

Section 211.955 Cement

"Cement" means, for the purposes of 35 Ill. Adm. Code 217, Subpart T, a hydraulic cement produced by pulverizing clinker consisting primarily of hydraulic calcium silicates, usually containing one or more of the forms of calcium sulfate as an interground addition.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 211.960 Cement Kiln

"Cement kiln" means, for the purposes of 35 Ill. Adm. Code 217, Subpart T, a system including any solid, gaseous or liquid fuel combustion equipment, used to preheat, calcine and react with raw materials, including limestone and clay, to produce cement clinker.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 211.1120 Clinker

"Clinker" means the product of a cement kiln from which finished cement is manufactured by milling and grinding.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 211.3483 Long Dry Kiln

"Long dry kiln" means a kiln 14 feet or larger in outside diameter, 400 feet or larger in length, which employs no preheating of the feed in the cyclone chambers, and the inlet feed to the kiln is dry.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 211.3485 Long Wet Kiln

"Long wet kiln" means a kiln 14 feet or larger in outside diameter, 400 feet or greater in length, which employs no preheating of the feed in the cyclone chambers, and the inlet feed to the kiln is a slurry.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 211.3487 Low- NO_xNO_x Burner

"Low- NO_xNO_x burner" means, for the purpose of 35 Ill. Adm. Code 217, Subpart T, a type of cement kiln burner system designed to lower NO_xNO_x formation by controlling flame turbulence, delaying fuel/air mixing and establishing fuel-rich zones for initial combusting, which 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 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. In contrast, in a direct firing system, the air stream used to convey pulverized coal is then directly used as primary combustion air without any intermediate storage of fuel, resulting in more primary combustion air than with an indirect system.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 211.3780 Mid-Kiln Firing

"Mid-kiln firing" means, for the purposes of 35 Ill. Adm. Code 217, Subpart T, a secondary firing in a kiln system by injecting fuel at an intermediate point in the kiln system using a specially designed fuel injection mechanism for the purposes of decreasing NO_xNO_x emissions through burning part of the fuel at a lower temperature, and reducing conditions at the fuel injection point that may destroy some of the NO_xNO_x formed upstream in the kiln system.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 211.5015 Preheater Kiln

"Preheater kiln" means, for the purposes of 35 Ill. Adm. Code 217, Subpart T, a kiln where the feed to the kiln is preheated in cyclone chambers prior to the final reactions in a kiln which forms clinker.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 211.5020 Preheater/Precalciner Kiln

"Preheater/precalciner kiln" means, for the purposes of 35 Ill. Adm. Code 217, Subpart T, a kiln where the feed to the kiln is preheated in cyclone chambers and utilizes a second burner to calcine material in a separate vessel attached to the preheater prior to the final fusion in a kiln which forms clinker.

(Source: Added at 25 Ill. Reg. _____, effective _____)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD

SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS
FOR STATIONARY SOURCES

PART 217
NITROGEN OXIDES EMISSIONS

SUBPART A: GENERAL PROVISIONS

Section	
217.100	Scope and Organization
217.101	Measurement Methods
217.102	Abbreviations and Units
217.103	Definitions
217.104	Incorporations by Reference

SUBPART B: NEW FUEL COMBUSTION EMISSION SOURCES

<u>Section</u>	
<u>217.121</u>	<u>New Emission Sources</u>

SUBPART C: EXISTING FUEL COMBUSTION EMISSION SOURCES

<u>Section</u>	
<u>217.141</u>	<u>Existing Emission Sources in Major Metropolitan Areas</u>

SUBPART K: PROCESS EMISSION SOURCES

Section
217.301 Industrial Processes

SUBPART O: CHEMICAL MANUFACTURE

Section
217.381 Nitric Acid Manufacturing Processes

SUBPART T: CEMENT KILNS

Section
~~217.400~~ 217.600 Applicability
~~217.402~~ 217.602 Control Requirements
~~217.404~~ 217.604 Testing
~~217.406~~ 217.606 Monitoring
~~217.408~~ 217.608 Reporting
~~217.410~~ 217.610 Recordkeeping

SUBPART V: ELECTRIC POWER GENERATION

Section
217.521 Lake of Egypt Power Plant

SUBPART W: NO_x TRADING PROGRAM FOR ELECTRICAL GENERATING UNITS

Section
217.750 Purpose
217.752 Severability
217.754 Applicability
217.756 Compliance Requirements
217.758 Permitting Requirements
217.760 NO_x Trading Budget
217.762 Methodology for Calculating NO_x Allocations for Budget Electrical Generating Units (“EGUs”)
217.764 NO_x Allocations for Budget EGUs
217.768 New Source Set-Asides for “New” Budget EGUs
217.770 Early Reduction Credits for Budget EGUs
217.774 Opt-In Units
217.776 Opt-In Process
217.778 Budget Opt-In Units: Withdrawal from NO_x Trading Program
217.780 Opt-In Units: Change in Regulatory Status
217.782 Allowance Allocations to Budget Opt-In Units

Appendix A	Rule into Section Table
Appendix B	Section into Rule Table
Appendix C	Compliance Dates
Appendix D	Non-Electrical Generating Units
Appendix F	Allowances for Electrical Generating Units

AUTHORITY: Implementing Sections 9, 9.1, 9.9, and 10 and authorized by Sections 27 and 28.5 of the Environmental Protection Act [415 ILCS 5/9, 9.1, 9.9, 10, ~~and 27, and 28.5.~~] (~~Ill. Rev. Stat. 1981, ch. 111 ½, pars. 1010 and 1027~~)

SOURCE: Adopted as Chapter 2: Air Pollution, Rule 207: Nitrogen Oxides Emissions, R71-23, 4 PCB 191, April 13, 1972, filed and effective April 14, 1972; amended at 2 Ill. Reg. 17, p. 101, effective April 13, 1978; codified at 7 Ill. Reg. 13609; amended in R01-09 at 25 ~~24~~ Ill. Reg. 128, effective January 5, 2001; amended in R01-11 at 25 Ill. Reg. _____, effective _____.

SUBPART A: GENERAL PROVISIONS

Section 217.104 Incorporations by Reference

The following materials are incorporated by reference. These incorporations do not include any later amendments or editions.

- a) The phenol disulfonic acid method, as published in 40 CFR 60, Appendix A, Method 7~~7~~ (1999);
- b) CFR 96, subparts B, D, G, and H (1999);
- c) 40 CFR 96.1 through 96.3, 96.5 through 96.7, 96.50 through 96.54, 96.55 (a) & (b), 96.56 and 96.57 (1999); ~~and~~
- d) 40 CFR 72, 75 & 76 (1999);
- ~~b~~e) Alternative Control Techniques Document---- NO~~x~~NO~~x~~ Emissions from Cement Manufacturing, EPA-453/R-94-004, U. S. Environmental Protection Agency-Office of Air Quality Planning and Standards, Research Triangle Park, N. C. 27711, March 1994;
- e) Section 11.6, Portland Cement Manufacturing, AP-42 Compilation of Air Emission Factors, Volume 1: Stationary Point and Area Sources, U.S. Environmental Protection Agency-Office of Air Quality Planning and Standards, Research Triangle Park, N. C. 27711, revised January 1995;
- ~~d~~g) 40 CFR § 60.13 (1999); and

eh) 40 CFR 60, Appendix A, Methods 7, 7A, 7C, 7D, and 7E (1999).

(Source: Amended at 25 Ill. Reg. _____, effective _____)

SUBPART T: CEMENT KILNS

Section ~~217.400~~217.600 Applicability

The requirements of this Subpart shall apply to the types of cement kilns listed below with process rates in tons per hour (TPH) of clinker produced that are greater than or equal to the following:

- a) Long dry kilns -- 12 TPH;
- b) Long wet kilns -- 10 TPH;
- c) Preheater kilns -- 16 TPH; and
- d) Preheater/precalciner kilns -- 22 TPH.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section ~~217.402~~217.602 Control Requirements

- a) After May 30, 2004~~April 30, 2003~~, an owner or operator of any cement kiln subject to the requirements of this Subpart shall not operate the kiln during the initial control period or any subsequent control period, unless the owner or operator complies with either subsection (a)(1), (a)(2), (a)(3), (a)(5) or (a)(6) of this Section for kilns that~~which~~ commenced operation prior to January 1, 1996, or either subsection (a)(4) or (a)(6) of this Section for kilns that~~which~~ commenced operation on or after January 1, 1996.
 - 1) The kiln is operated with a low- NO_x~~NO_x~~ burner or a mid-kiln firing system;
 - 2) The kiln shall not exceed the applicable NO_x~~NO_x~~ emission limitation in pounds per ton of clinker (lb/T), expressed in the rates listed below:
 - A) Long dry kilns -- 5.1 lb NO_x~~NO_x~~ /T of clinker;
 - B) Long wet kilns -- 6.0 lb NO_x~~NO_x~~ /T of clinker;
 - C) Preheater kilns -- 3.8 lb NO_x~~NO_x~~ /T of clinker; or
 - D) Preheater/precalciner kilns -- 2.8 lb NO_x~~NO_x~~ /T of clinker.

3) The kiln achieves a 30 percent or greater reduction from its uncontrolled baseline, established as set forth in this subsection (a)(3), and complying with the following:

A) Uncontrolled baseline emissions shall be determined using the following equation:

$$\text{UBE} = \frac{[\text{EF} \times \text{SPR}]}{\div \text{2000 lbs NO}_x\text{NO}_x / \text{T}}$$

Where:

UBE = Uncontrolled Baseline NO_xNO_x emissions expressed in tons of NO_xNO_x per control period;

EF = Emissions factor, expressed in lbs of NO_xNO_x per ton of clinker produced per control period, based on one of the methods in subsection (a)(3)(B) of this Section; and

SPR = Seasonal production rate, expressed in tons of clinker produced per control period, using the average of the two highest control period operating rates from the previous three-year period at the time the application for the permit with federally enforceable conditions is submitted to the Agency pursuant to subsection (a)(3)(C) of this Section.

B) Emissions factors shall be determined using one of the following methods:

i) The average of the emission factors for the type of kiln from the Compilation of Air Pollutant Emission Factors (AP-42) and the Alternative Control Techniques Document -- NO_xNO_x Emissions from Cement Manufacturing, as incorporated by reference in Section 217.104 of this Part;

ii) The site-specific emission factor developed from representative emissions testing, pursuant to 40 CFR 60, Appendix A, ~~Methods~~ Method 7, 7A, 7C, 7D, or 7E, incorporated by reference in Section 217.104 of this Part, based on a range of typical operating conditions. The owner or operator must establish that these operating

conditions are representative, subject to approval by the Agency, and must certify that the emissions testing is being conducted under representative conditions; or

iii) An alternate method for establishing the emissions factors, when submitted with supporting data to substantiate such emissions factors and approved by the Agency as set forth in subsection (a)(3)(C) of this Section.

C) The owner or operator must submit an emission reduction plan to the Agency and obtain approval of that plan by the Agency. Such plan shall be effective only when contained as federally enforceable conditions in a permit. Such plan shall include any alternate procedures for monitoring, testing, reporting, or recordkeeping approved by the Agency, or other provisions as appropriate.

4) Any kiln subject to this Subpart that commenced operation on or after January 1, 1996, must meet the more stringent of the requirements of this Subpart or other CAA requirements, or rules promulgated thereunder, applicable to kilns. If a kiln is required to comply with a more stringent requirement pursuant to the CAA, and chooses to do so in lieu of complying with this Subpart, the owner or operator must submit an emissions reduction plan that demonstrates that compliance with the CAA requirement results in emissions reductions that are equal to or exceed the requirements of this Section and obtain a permit containing federally enforceable conditions addressing such CAA requirement.

5) The owner or operator obtains an alternate emissions standard for operating the kiln pursuant to Section 28.1 of the Act [415 ILCS 5/28.1], and in accordance with 35 Ill. Adm. Code 104, Subpart D106, ~~Subpart G~~, provisions for adjusted standards. An adjusted standard or alternate emissions standard with an alternate compliance schedule shall be granted by the Board to the extent consistent with federal law. Such alternate shall be effective only when included as a federally enforceable condition in a permit approved by USEPA or approved as a SIP revision. The adjusted standard shall include any alternate procedures for control, compliance, monitoring, operation, testing, reporting, or recordkeeping that are appropriate. In addition, the owner or operator must demonstrate, as justification for the adjusted standard, that the control requirements contained in this Subpart, as they apply to cement kilns, meet one or more of the following criteria:

A) Unreasonable cost of control resulting from plant, age, location or basic process design;

- B) Physical impossibility of installing necessary control equipment;
or
- C) Other factors specific to the cement kiln that support an alternate emissions standard.
- 6) The owner or operator obtains approval by the Agency and USEPA to allow the kiln to participate in the federal NO_xNO_x Trading Program. Such participation will be effective upon issuance of a permit containing all necessary federally enforceable permit conditions addressing the kiln's participation in the federal NO_xNO_x Trading Program pursuant to 40 CFR 96 and the Illinois NO_x Trading Program regulations at either ~~Subpart W of 35 Ill. Adm. Code Part 217, NO_xNO_x Trading Program for Electrical Generating Units, Sections 217.750 et seq. or Subpart U of 35 Ill. Adm. Code Part 217, NO_x Control and Trading Programs for Specified NO_x Generating Units, Sections 217.650 et seq.~~ The owner or operator is not subject to the requirements of this Subpart for the duration of its participation in the NO_xNO_x Trading Program, except for the requirement to submit the initial compliance report pursuant to Section ~~217.408(a)~~~~217.608(a)~~ of this Subpart.
- b) Notwithstanding any other provisions of this Subpart, a source and units at the source subject to the provisions of subsection (a) of this Section will become subject to this Subpart on *the first day of the control season subsequent to the calendar year in which all of the other states subject to the provisions of the NO_x SIP Call (63 Fed. Reg. 57,355 (October 27, 1998)) that are located in USEPA Region V or that are contiguous to Illinois have adopted regulations to implement NO_x trading programs and other required reductions of NO_x emissions pursuant to the NO_x SIP Call, and such regulations have received final approval by USEPA as part of the respective states' SIPS for ozone, or a final FIP for ozone promulgated by USEPA is effective for such other states.* ~~THE FIRST DAY OF THE CONTROL SEASON SUBSEQUENT TO THE CALENDAR YEAR IN WHICH ALL OF THE OTHER STATES SUBJECT TO THE PROVISIONS OF THE NO_x SIP CALL (63 Fed. Reg. 57,355 (October 27, 1998)) THAT ARE LOCATED IN REGION V OR THAT ARE CONTIGUOUS TO ILLINOIS HAVE ADOPTED REGULATIONS TO IMPLEMENT NO_x TRADING PROGRAMS AND OTHER REQUIRED REDUCTIONS OF NO_x EMISSIONS PURSUANT TO THE NO_x SIP CALL, AND SUCH REGULATIONS HAVE RECEIVED FINAL APPROVAL BY USEPA AS PART OF THE RESPECTIVE STATES' SIPS FOR OZONE, OR A FINAL FIP FOR OZONE PROMULGATED BY USEPA IS EFFECTIVE FOR SUCH OTHER STATES.~~ [415 ILCS 5/9.9(f)]

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 217.404~~217.604~~ Testing

- a) Any owner or operator of a kiln that commenced operation prior to May 1, 2003~~2002~~, and using a low-NO_xNO_x burner or mid-kiln firing system to demonstrate compliance pursuant to Section 217.402~~217.602~~ (a)(1) of this Subpart must maintain and operate the device according to the manufacturer's specifications as approved by the Agency.
- b) Any owner or operator of a kiln that commenced operation prior to May 1, 2003~~2002~~, and demonstrating compliance pursuant to Section 217.402~~217.602~~ (a)(2), (a)(3)(C), or (a)(5) of this Subpart must complete an initial performance test between May 1, 2003~~2002~~, and May 30, 2004~~April 30, 2003~~, and subsequent annual testing during each control period in which the kiln is operated. This testing must be consistent with the requirements of 40 CFR 60, Appendix A, ~~Methods~~Method 7, 7A, 7C, 7D, or 7E, incorporated by reference in Section 217.104 of this Part, or such alternate test method that has been approved by the Agency pursuant to Section 217.402~~217.602~~ (a)(3)(C) of this Subpart or the Board pursuant to Section 217.402~~217.602~~ (a)(5) of this Subpart.
- c) The owner or operator of a kiln that commences operation on or after May 1, 2003~~2002~~, must complete, as appropriate, an initial performance test within one year ~~after~~of initial startup and subsequent annual testing during each control period in which the kiln is operated. This testing must be consistent with the test methods listed in subsection (b) of this Section.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 217.406~~217.606~~ Monitoring

- a) The owner or operator of a kiln subject to this Subpart must submit a complete monitoring plan addressing the applicable requirements of subsection (b) of this Section to the Agency and obtain approval of such plan by the Agency. The monitoring plan shall identify the operating conditions to be monitored and the records to be maintained under Section 217.410~~217.610~~ of this Subpart. For any kiln that commences operation on or before August 31, 2003~~August 1, 2002~~, such plan shall be submitted on or before August 31, 2003~~August 1, 2002~~. For any other kiln subject to this Subpart, such plan shall be submitted with the construction permit application for such kiln. Such plan will be effective only when included as federally enforceable conditions in a permit issued by the Agency.
- b) The plan must:

- 1) Identify the specific operating conditions to be monitored and the correlation between the operating conditions and NO_xNO_x emission rates;
 - 2) Include the data and information that the owner or operator used to identify the correlation between NO_xNO_x emission rates and these operating conditions;
 - 3) Identify how the owner or operator will monitor these operating conditions on an hourly or other basis, as approved by the Agency, the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate, and the type and format of the records of these operating conditions that will be maintained by the owner or operator under Section 217.410~~217.610~~ of this Subpart;
 - 4) If operating a low- NO_xNO_x burner or mid-kiln firing system, the plan must include only monitoring the parameters indicated in the manufacturer's specifications and recommendations for the low- NO_xNO_x burner or mid-kiln firing system as approved by the Agency; and
 - 5) Notwithstanding the requirements of subsections (b)(1) and (b)(2) of this ~~Section~~ subsection requiring the monitoring of operating parameters, if the owner or operator elects to monitor NO_xNO_x emissions using a continuous emissions monitoring system (CEMS), the owner or operator must submit a monitoring plan subject to approval by the Agency ~~that which~~ contains the applicable provisions of 40 CFR § 60.13 and of Method 7E in Appendix A contained in 40 CFR ~~part~~ 60, as incorporated by reference in Section 217.104 of this Part, and additional provisions regarding accuracy, data capture, and monitoring frequency.
- c) The owner or operator must monitor the operating parameters of the emission unit and predict NO_xNO_x emission rates in accordance with the plan specified in the applicable operating permit.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 217.408~~217.608~~ Reporting

- a) By May 31, 2004~~May 1, 2003~~, or within one year after~~of~~ initial startup, whichever occurs later, the owner or operator of a kiln subject to the requirements of this Subpart must submit to the Agency an initial compliance certification for each kiln subject to the requirements of Section 217.402~~217.602~~

of this Subpart. This certification must contain the following information as applicable:

- 1) The identity and type of each kiln subject to this Subpart, the name and address of the plant where the kiln is located, and the name and telephone number of the person responsible for demonstrating compliance with this Subpart;
 - 2) A demonstration that each kiln is in compliance with Section 217.402~~217.602~~ of this Subpart, identifying~~identifies~~ the provision with which it is complying and is accompanied by a summary of the approved compliance method, e.g., performance test for the kiln and other supporting data being relied upon by the owner or operator;
 - 3) If demonstrating compliance by use of a low-NO_x~~NO_x~~ burner or mid-kiln firing system pursuant to Section 217.402~~217.602~~ (a)(1) of this Subpart, a copy of the manufacturer's recommended maintenance and schedule for maintenance as approved by the Agency;
 - 4) If demonstrating compliance pursuant to Section 217.402~~217.602~~ (a)(3)(C) or (a)(5) of this Subpart, the date on which the permit containing the emission reduction plan or SIP revision was received as federally enforceable conditions; and
 - 5) If demonstrating compliance pursuant to Section 217.402~~217.602~~(a)(6) of this Subpart, the date of issuance and the identification of the permit authorizing, through federally enforceable conditions, participation in the federal NO_x~~NO_x~~ Trading Program~~trading program~~.
- b) Beginning in 2004~~2003~~, by December 31 of each year, owners and operators complying with this Subpart pursuant to Section 217.402~~217.602~~(a)(1), (a)(2), (a)(3), (a)(4), or (a)(5), must, as a seasonal component of its annual emission report pursuant to 35 Ill. Adm. Code 254, report the total NO_x~~NO_x~~ emissions of each subject kiln during the control period of each year to the Agency, if the kiln operated during this period.

(Source: Added at 25 Ill. Reg. _____, effective _____)

Section 217.410~~217.610~~ Recordkeeping

- a) Any owner or operator of a cement kiln subject to this Subpart must produce and maintain records that include, but are not limited to:

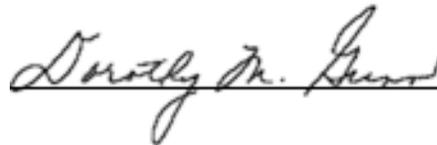
- 1) Emissions in pounds of NO_x per ton of clinker produced from each kiln subject to the requirements of Section 217.402~~217.602~~(a)(2), (a)(3)(C) or (a)(5) of this Subpart;
 - 2) The date, time, and duration of any startup, shutdown, or malfunction in the operation of any cement kiln subject to this Subpart or any emissions monitoring equipment. The records shall include a description of the malfunction and maintenance activity;
 - 3) If operating a low- NO_x burner or mid-kiln firing system; the date, time and duration of any regularly scheduled maintenance, with a description of the activity, and tons of clinker produced from each kiln;
 - 4) The results of any required performance testing;
 - 5) Daily cement kiln clinker production in tons per day; and
 - 6) The records of monitoring required by Section 217.406~~217.606~~ of this Subpart.
- b) All records required to be produced or maintained shall be retained on site for a minimum of three years and be made available to the Agency upon request.

(Source: Added at 25 Ill. Reg. _____, effective _____)

IT IS SO ORDERED.

Board Member S.T. Lawton, Jr. abstained.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, do hereby certify that the above opinion and order was adopted on the 1st day of March 2001 by a vote of 6-0.



Dorothy M. Gunn, Clerk
Illinois Pollution Control Board